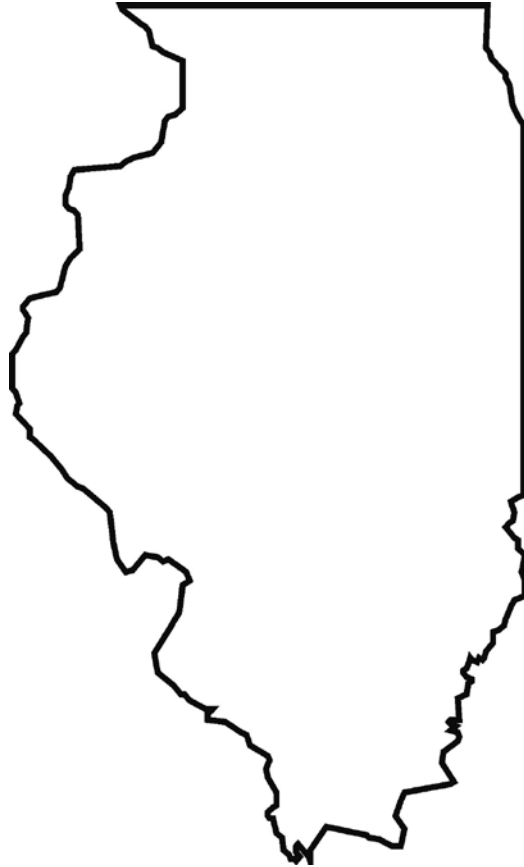


Report to the General Assembly
January 2014

Public Act 93-0536



State of Illinois
Pat Quinn, Governor

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December 2013

Governor Quinn and Honorable Members of the General Assembly:

I am pleased to present the 2014 Perinatal Report in response to Public Act 93-0536. The original "Report to the General Assembly, Public Act 93-0536" was presented to the General Assembly in 2004. Subsequent updates to the report were submitted in 2006, 2008, 2010, and 2012. All of the reports are available on our Web site at: <http://www.hfs.illinois.gov/mch/report.html>

This report describes the steps Healthcare and Family Services (HFS) has taken with other state agencies, advocacy groups, maternal and child health experts, health care providers specializing in maternal and child health, including high-risk obstetricians, family practice providers, pediatricians, nurse midwives, community health centers and others to address perinatal health in Illinois. The report details the progress made on addressing the priority recommendations outlined in the 2004 report; reviews the available trend data on infant mortality, low birth weight and very low birth weight outcomes; and identifies the progress made to address poor birth outcomes through analysis of trend data.

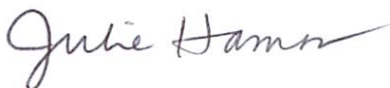
Since 2004, HFS has used the original report as a guide for improving birth outcomes in Illinois but much remains to be done. Over the years, HFS has consistently paid for 50 percent or more of Illinois births. We paid for more than 90 percent of the births to adolescents in 2012, the latest year for which data are available as we finalized this document. In Illinois, as in the rest of the country, perinatal disparities persist for African American women and infants.

Within state government, HFS shares responsibility for maternal and child health programs with the Department of Public Health and the Department of Human Services. We recognize that it is critically important that our efforts be closely coordinated with those of our sister agencies. In the coming year, we plan to facilitate a dialogue with them, members of the General Assembly and other stakeholders to craft a shared and renewed strategic vision for reducing poor birth outcomes and to launch a major new initiative to accomplish that goal.

In closing, I would like to recognize the significant assistance HFS received from the other state agencies involved with maternal and child health in compiling the data presented in the report.

You may obtain a copy of the updated 2014 report on compact disk by calling HFS' Office of Legislative Affairs at 217-782-1212.

Sincerely,



Julie Hamos, Director

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Legislative Mandate

Public Act 93-0536 (305 ILCS 5/5 – 5.23) was enacted with the goal of improving birth outcomes for over 80,000 babies whose births are covered by HFS every year. The law states that HFS may provide reimbursement for all prenatal and perinatal health care services that are provided under Medicaid for the purpose of preventing low birth weight infants, reducing the need for neonatal intensive care hospital services, and promoting perinatal health. Additionally, HFS was required to develop a plan for prenatal and perinatal health care for presentation to the General Assembly by January 1, 2004. HFS is required to report to the General Assembly on the effectiveness of prenatal and perinatal health care services, on or before January 1, 2006, and every two years thereafter.

As required, this document is presented to the General Assembly in compliance with Public Act 93-0536 (305 ILCS 5/5 – 5/23) to report on the effectiveness of prenatal and perinatal health care services reimbursed by HFS in improving birth outcomes. This document (as well as the previous reports from 2004, 2006, 2008, 2010, and 2012) is available on the HFS Web site at: <http://www.hfs.illinois.gov/mch/report.html>

Acronyms

Henceforth the following acronyms will be used throughout this report:

AAFP	American Academy of Family Physicians
ACA	Affordable Care Act
ACOG	American College of Obstetrics and Gynecology
AMCHP/ALC	Association of Maternal and Child Health Programs/Action Learning Collaborative
APORS	Adverse Pregnancy Outcome Reporting System (administered by DPH)
ASTHO	Association of State and Territorial Health Officials
ATOD	Alcohol Tobacco and Other Drugs
BBOP	Better Birth Outcomes Program (administered by DHS)
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CHIPRA	Children's Health Insurance Program Reauthorization Act
CMS	Centers for Medicare and Medicaid Services
CoIIN	Infant Mortality Collaborative Improvement & Innovation Network
CORE	HIV/AIDS clinic partnership between the Cook County Health and Hospitals Systems and Rush University
CPT	Current Procedural Terminology
CSAT	Center for Substance Abuse Treatment
DARTS	Data Automated Recording and Tracking System, (administered by DHS/DASA)
DASA	Division of Alcohol and Substance Abuse (DHS)
DCFS	Illinois Department of Children and Family Services
DHS	Illinois Department of Human Services
DHHS	United States Department of Healthcare and Human Services
DMH	Division of Mental Health (DHS)
DPH	Illinois Department of Public Health
DRG	Diagnosis Related Grouping
E&M	Evaluation and Management Services
EDW	Enterprise Data Warehouse (administered by HFS)
EHR	Electronic Health Records
EIS	Executive Information System (administered by HFS)
FCM	Family Case Management (administered by DHS)

FIMR	Fetal Infant Mortality Reduction (administered by DHS/DPH)
FQHC	Federally Qualified Health Center
FSBC	Freestanding Birth Centers
GPRA	Government Performance and Results Act
HEDIS®	Healthcare Effectiveness Data and Information Set
HFS	Illinois Department of Healthcare and Family Services
HIT	Health Information Technology
HIV	Human Immunodeficiency Virus
IHA	Illinois Hospital Association
IHW	Illinois Healthy Women (administered by HFS)
ILHIE	Illinois Health Information Exchange
IM	Infant Mortality
IMCHC	Illinois Maternal and Child Health Coalition renamed EverThrive Illinois
IPCM	Intensive Prenatal Case Management (administered by DHS)
IPQC	Illinois Perinatal Quality Collaborative
ITQL	Illinois Tobacco Quitline
JCAR	Joint Committee on Administrative Rules
LARC	Long-Acting Reversible Contraception
LBW	Low Birth Weight
MCH	Maternal and Child Health
MCO	Managed Care Organization
MIECHV	Maternal Infant Early Childhood Home Visiting
MoD	March of Dimes
MRHT	Michael Reese Health Trust
NCHS	National Center for Health Statistics
PA	Public Act
PCCM	Primary Care Case Management (administered by HFS)
PCQT	Perinatal Care Quality Tool (administered by HFS)
PMEDS	Prenatal Minimum Electronic Data Set (administered by HFS)
PMHCT	Perinatal Mental Health Consultation Team
PRAMS	Pregnancy Risk Assessment Monitoring System (administered by DPH)
QIO	Quality Improvement Organization
SBIRT	Screening, Brief Intervention, and Referral to Treatment

SBTF	State Breastfeeding Task Force
SMART ACT	Save Medicaid Access and Resources Together Act
SNAP	Supplemental Nutrition Assistance Program
SUD	Substance Use Disorders
TEDS	Treatment Episode Data Set
TIPCM	Targeted Intensive Prenatal Case Management (administered by DHS)
USPSTF	United States Preventive Services Task Force
VLBW	Very Low Birth Weight
VMCO	Voluntary Managed Care Organization (administered by HFS)
WIC	Special Supplemental Nutrition Program for Women, Infants and Children (administered by DHS)

Introduction

The Illinois Department of Healthcare and Family Services (HFS) is the largest insurer in Illinois, providing comprehensive health insurance services for over 2.7 million Illinoisans in state fiscal year 2012. In calendar year 2012, HFS covered 54.3 percent of the state's births and 94.2 percent of births to teens (provisional data).¹

Reducing infant mortality ([IM] death during the first year of life), low birth weight ([LBW] infants born less than 2,500 grams), and very low birth weight ([VLBW] infants born less than 1,500 grams) are health priorities in the United States (U.S.), as well as in Illinois. Progress has been made in health care and medical technology that has contributed to steady overall declines in IM in the United States. Although the U.S. infant mortality rate did not decline from 2000 to 2005, data show the infant mortality rate declined 12 percent from 2005 through 2011. Preliminary 2011 data reported by the National Center for Health Statistics (NCHS) show the U.S. infant mortality rate is 6.05 infant deaths per 1,000 live births. From 2005 through 2011, the infant mortality rate declined 16 percent for non-Hispanic black women and 12 percent for non-Hispanic white women.²

In the U.S., perinatal disparities persist for African Americans. The NCHS reports preliminary 2011 data showing the U.S. low birth weight rate at 8.10 percent, which is relatively unchanged from 8.15 percent in 2010. From 2010 to 2011, the LBW rate decreased slightly among non-Hispanic whites (from 7.14% to 7.09%) and non-Hispanic blacks (from 13.53% to 13.33%). However, the non-Hispanic black rate is 1.88 times the non-Hispanic white rate. From 2010 to 2011, the very low birth weight rate declined slightly for non-Hispanic whites (from 1.16% to 1.14%) while the rate for non-Hispanic blacks increased slightly (from 2.98% to 2.99%).³ However, the VLBW rate among non-Hispanic blacks is 2.62 times the rate of non-Hispanic whites. These LBW conditions place the infant at higher risk for multiple health problems, disability and death.

Illinois mirrors the nation with its experience in perinatal disparities among African Americans. In Illinois, the Department of Public Health (DPH) reports the infant mortality rate among African Americans as 14 per 1,000 live births compared to 5.4 per 1,000 live births among Whites (CY2009).

This report identifies steps HFS has taken with its partners (sister and community agencies, advocacy groups, maternal and child health [MCH] experts, local funding resources and foundations) to address perinatal health care needs and racial health disparities in Illinois; details the progress made in addressing the priority recommendations as outlined in the 2004 Report to the General Assembly as a result of Public Act (PA) 93-0536; reviews the available trend data on IM, LBW and VLBW outcomes; identifies the progress made to address poor birth outcomes through analysis of trend data; and identifies next steps in improving birth outcomes. The 2004 Perinatal Report also included Other Priority Recommendations that did not fit into a specific category. Since the 2004 Perinatal Report was issued, HFS, DPH and the Illinois Department of Human Services (DHS) have undertaken many initiatives to improve birth outcomes. These initiatives have been incorporated into this report under the heading "Other Related Initiatives."

¹ Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, November 2013.

² MacDorman MF, Hoyert DL, Mathews TJ. Recent declines in infant mortality in the United States, 2005–2011. NCHS data brief, no 120. Hyattsville, MD: National Center for Health Statistics. 2013.

³ Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2011. National vital statistics reports; vol 61 no 5. Hyattsville, MD: National Center for Health Statistics. 2012.

**Illinois Department of Healthcare and Family Services
Status of Perinatal Recommendations/Initiatives Chart**

Public Act 93-0536 Priority Recommendations		
Planned Pregnancy		
Recommendation	Status	Update
Provide coverage for family planning to the Title XXI 19-year old population who are leaving the program due to age or to female parents/relative caretakers under Illinois Family Care who no longer meet the income requirements for that program	Completed	Coverage continues. No update since last reported in the 2008 Perinatal Report.
Include folic acid and vitamin supplementation in the package of covered services under Illinois Healthy Women (IHW)	Completed	Coverage continues. No update since last reported in the 2012 Perinatal Report.
Expand coverage under the IHW program to women who would otherwise be eligible for HFS maternity coverage if pregnant, and whose income is at or below 200 percent of the federal poverty level, irrespective of whether they were previously enrolled in HFS or the Children's Health Insurance Program (CHIP)	Completed	Coverage continues. The expansion was implemented in May 2007. The Centers for Medicare and Medicaid Services (CMS) has granted HFS several extensions on the IHW waiver, with the current extension through December 31, 2014.
Add coverage for a preconception visit and interconceptional care (between pregnancies) to address health issues and plan for a healthy birth	Completed	Effective January 1, 2012, HFS opened the adult risk assessment code 99420 to allow eligible providers to be reimbursed for administering the preconception screening tool. On March 9, 2012, a provider informational notice was issued to eligible providers about reimbursement for the preconception screening tool.

Mental Health During Prenatal Period		
Recommendation	Status	Update
Create a statewide Perinatal Mental Health Consultation Service for providers that includes a university-based Perinatal Mental Health Consultation Team (PMHCT) charged with developing a model program template for addressing the specific needs of HFS-enrolled women of reproductive age, providing assistance to prenatal and primary care providers to help the clinics adapt and implement the model at their sites, and maintaining an ongoing telephone, fax or e-mail consultation service for HFS primary care providers	Completed	Initiative ended with HFS and has since been undertaken by DHS in accordance with PA 95-0469, which designates DHS as the lead agency to increase awareness and promote early detection and treatment of perinatal mental health disorders.

Oral Health		
Recommendation	Status	Update
Expand HFS coverage for prevention and treatment of oral disease in pregnant women, including measures to reduce colonization of <i>S. mutans</i> and to control periodontal infections	Completed	The 98 th Illinois General Assembly passed PA 98-0104 which requires HFS to ensure that dental services necessary for the health of a pregnant woman prior to delivery of her baby are covered. Effective July 1, 2013, HFS' dental coverage for pregnant women includes both preventive and restorative dental services.

Smoking Cessation		
Recommendation	Status	Update
Encourage providers to assess smoking status and update smoking status at each visit, providing advice to quit	Completed	Through periodic provider notices, HFS encourages providers to assess smoking status, counsel, and make referrals to smoking cessation services for all patients. The Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant developed a Prenatal Care Quality Tool (PCQT) to assist providers in assuring the appropriate content of care is provided to pregnant patients in accordance with American College of Obstetrics and Gynecology (ACOG) and American Academy of Family Physicians (AAFP) guidelines. The tool includes guidance to assess smoking status at each visit.
Provide a booklet, which is motivational and includes self-help skills for quitting, to providers for distribution	Ongoing	DPH's Illinois Tobacco-Free Communities Program continues to provide physicians with training and educational materials on brief tobacco cessation interventions (5As or Ask, Advise, Refer) they can conduct with patients who smoke and referral of patients who indicate readiness to quit, to DPH's Illinois Tobacco Quitline (ITQL).
Provide smoking cessation intervention with women in the public delivery of care system who are not currently pregnant as quitting during pregnancy is often temporary	Completed	HFS sends periodic notices to participants encouraging them to quit smoking and informing them of the DPH/ITQL and the availability of smoking cessation products to help them quit. HFS covers smoking cessation products to assist participants in quitting smoking. HFS' dental program also promotes smoking cessation with participants. Dentists are supplied with prescription pads that encourage patients to quit smoking and provide information on the DPH/ITQL.
Provide reimbursement for a more intensive smoking cessation program that includes one-on-one counseling, telephone support and cessation classes or support groups for pregnant women who smoke	Completed	HFS does not reimburse for counseling services. Counseling is a component part of the office visit, and one-on-one telephone counseling is provided by the ITQL. In State Fiscal Year 2012, the DPH/ ITQL reported that 418 persons who received in-depth counseling reported hearing about the DPH/ITQL from HFS. This is in comparison to 604 in FY2011. The number reported dropped to 53 in FY2013. Also, in FY2012, the DPH/ ITQL began reporting the number of pregnant women who received in-depth counseling. The number of pregnant women receiving in-depth DPH/ITQL counseling was 285 in FY2012 and 403 in FY2013. All information obtained from callers during DPH/ITQL intake is self-reported.

Perinatal Addiction		
Recommendation	Status	Update
Identify existing resources needed to establish a MCH team with a substance abuse treatment specialist	In Progress	The Women's Committee of the Illinois Alcoholism and Other Drug Abuse Advisory Council will plan and include within the legislatively mandated 2013 Illinois Women's Plan, a MCH goal that will be part of the Family Centered Services standing work group. The goal will include priority objectives to support, increase and enhance resources for MCH. The "team" will be comprised of the current Inter-agency work group members and will add other appropriate DHS divisions and HFS staff.
Provide training for physicians on the signs, symptoms and screenings for addictions	In Progress	DHS Division of Alcoholism and Substance Abuse (DHS/DASA) was the recipient of a five-year Center for Substance Abuse Treatment (CSAT) and Screening, Brief Intervention, and Referral to Treatment (SBIRT) cooperative agreement award in 2003. DHS/DASA's CSAT SBIRT award received continued funding. The SBIRT program is with Access Health Network. As noted in the prior 2012 Perinatal Report status, the award represents a change from the original 2003 award in terms of the generalist health care settings. Screening and brief intervention services continue to be provided. Training also continues to be given to medical assistants, physicians and physician assistants at six Access Health Network sites.
Increase the number of outreach workers and treatment slots for pregnant women	Ongoing	In spite of treatment budgetary reductions, DHS/DASA continues to fund specialized services for pregnant women within its statewide service delivery system. Child care residential and child domiciliary services are funded at provider sites that offer specialized services to pregnant women and women with children. Federal block grant dollars assure the sustainability of services for perinatal/prenatal services. State funding reductions however, continue to prohibit further expansion of these services at this time.
Convene a subcommittee on data and evaluation to recommend strategies to improve capturing birth outcomes of addicted women	In Progress	DHS/DASA has developed data strategies and a framework designed for quality improvement as well as performance measures that capture program impact, and outcomes intended to lead to improved quality of services. Providers now have: <ul style="list-style-type: none"> • access to a web portal to access service data • Data Automated Recording and Tracking System (DARTS) modifications to bring DARTS and provider reports in line with the Treatment Episode Data Set (TEDS) and Government Performance and Results Act (GPRA) federal data elements.

Recommendation	Status	Update
Include a substance abuse specialist in the Targeted Intensive Prenatal Case Management (TIPCM) and Healthy Start programs	Ongoing	At the time of intake in e-Cornerstone into the Family Case Management (FCM), Healthy Start, Healthy Families Illinois, Intensive Prenatal Case Management (IPCM), Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and High Risk Infant Follow-up programs, pregnant and parenting women are screened for alcohol and other substance abuse disorders (SUD). Women who admit to use are referred to a licensed treatment provider for further assessment and diagnostic treatment as indicated. Pregnant incarcerated women are also recipients of assessment and treatment at licensed and funded, gender specialized treatment providers throughout Illinois.
Fund a smoking cessation specialist position in DASA to review and recommend smoking cessation programs and provide smoking cessation training	In Progress	As part of SBIRT II, pregnant women screened for tobacco use are referred for smoking cessation classes. In addition, DHS/DASA coordinates and works collaboratively with the former division of Community Health and Prevention's Alcohol Tobacco and Other Drugs (ATOD) Comprehensive Community-based Prevention initiatives and campaigns upon request. Several of DHS/DASA's provider programs offering specialized women's services has smoking cessation programs in place at their agencies (i.e., The Women's Treatment Center, Haymarket Center and Chestnut Health Systems.
Establish a formal network for consultation as needed by primary care providers	In Progress	DHS/DASA has been delegated responsibility for administrative and fiscal management of the Illinois SBIRT II Initiative. The majority of expanded SBIRT II services will be provided to adult patients at federally qualified health centers (FQHC) located in the Chicago metropolitan area that are operated by Access Health Network. A Policy Steering Committee consisting of key state-level government representatives, the healthcare and substance abuse treatment sectors, professional organizations, and local communities will advise the project and will provide leadership for reframing the financing and delivery of intervention and SUD services in Illinois.

HIV Counseling		
Recommendation	Status	Update
Cover HIV counseling and testing under IHW	Completed	Coverage continues. No update since last reported in the 2010 Perinatal Report.
Implement strategies (e.g., outreach and case finding of pregnant women) to ensure that pregnant women receive prenatal care and FCM services	Completed	Initiative continues. No update since last reported in 2010 the Perinatal Report.

Recommendation	Status	Update
Refer pregnant women who are HIV-positive to TIPCM	In Progress	A committee made up of representatives from DPH's HIV Fetal Infant Mortality Reduction (FIMR) project, DHS, the Core Center, and others has continued to meet to discuss services, gaps in care, challenges and barriers to service for HIV infected pregnant and parenting women. Tentatively, an intensive training is being planned for later this calendar year for workers from all areas of service delivery to assist in establishing a continuum of care. Additionally, the Bureau Chief of DHS' Maternal & Child services will participate in a panel discussion at the Perinatal Symposium preceding the annual HIV Conference in October. This panel presentation will be utilized to obtain feedback from participants on gaps and un-met needs of the HIV positive pregnant and parenting women in Illinois.
Look for ways to assure compliance with the requirement that providers of prenatal health care services routinely provide HIV counseling to all pregnant women; routinely discuss the importance of HIV testing; and routinely offer HIV testing on a voluntary basis, as well as compliance with the requirement that every health care professional or facility that cares for a newborn, upon delivery or within 48 hours after the infant's birth, provide counseling and automatically perform HIV testing when the HIV status of the infant's mother is unknown, if the parent or guardian does not refuse	Ongoing	Illinois has been tracking and monitoring providers' compliance with the Illinois Perinatal Prevention Act. In 2011, 155,565 women delivered babies in Illinois, with 132 known to be HIV positive at the time. Among the pregnant women entering labor and delivery, 95.6 percent or 148,668 presented documentation of their HIV status and 4.4 percent or 6,897 pregnant women entered without documentation of their HIV Status compared to 4.6 percent in 2010. Of the women without documentation, 99.5 percent or 6,861 were rapid tested, with twelve confirmed positive, identifying seven new diagnosis of HIV. In 2012, 153,658 women delivered babies in Illinois, with 127 known to be positive at the time. Among the pregnant women entering labor and delivery, 95.8 percent or 147,218 presented documentation of their HIV status and 4.2 percent or 6,440 pregnant women entered without documentation of their HIV Status. Of the women without documentation, 99.4 percent or 6,404 were rapid tested, with eight confirmed positive. Rapid testing is occurring in all ten perinatal networks and DPH maintains a relationship with each network through their network administrators.
Provide separate HFS reimbursement for HIV Counseling as a means to help reduce the transmission of HIV infection.	Completed	Reimbursement for HIV Counseling is currently covered as a component or anticipatory guidance given during an office visit and paid under the Current Procedural Terminology (CPT) code for Evaluation and Management Services (E&M).
Collaborate and work in concert with other State agencies and provider groups to encourage providers to document HIV testing results and ensure that such documentation is available at the labor and delivery hospital.	Completed	No update since last reported in the 2010 Perinatal Report.
Educate providers on reimbursement for perinatal rapid testing, allowing payment for this laboratory procedure and office visit, which includes counseling.	Completed	Reimbursement continues. No update since last reported in the 2008 Perinatal Report.

Nurse Midwifery		
Recommendation	Status	Update
Increase the use of Certified Nurse Midwives as a cost-effective group of perinatal providers	In Progress	<p>Pursuant to ACA guidance, HFS and DPH are working together to implement Birthing Centers in Illinois. Per recent rule adoption to 89 Illinois Administrative Code Section 146, licensed birth centers may enroll to provide services under the HFS' medical programs. Birth centers licensed under DPH rules at 77 Illinois Administrative Code, Part 265 and enrolled by the department are eligible for reimbursement of the following services:</p> <ul style="list-style-type: none"> • Delivery Services • Observation Services • Facility Transfer Fee <p>A birth center is defined as an alternative healthcare delivery model that is exclusively dedicated to serving the childbirth-related needs of women and their newborns, and has no more than 10 beds. A birth center is a designated site in which births are planned to occur following a normal, uncomplicated, and low-risk pregnancy, and which is away from the mother's usual place of residence.</p>
Base reimbursement rates on the services provided, rather than whether a physician or Certified Nurse Midwife provided the services	Completed	Reimbursement continues. No update since last reported in the 2010 Perinatal Report.
Allow Certified Nurse Midwives to have MCH (enhanced rate) status	Completed	No update since last reported in the 2010 Perinatal Report.

Lactation Counseling		
Recommendation	Status	Update
Use the task force model to develop an awareness and outreach campaign to more effectively utilize services across agencies	In Progress	The State Breastfeeding Task Force (SBTF) continues promoting awareness of breastfeeding with an increased number of regional breastfeeding task forces (10). The SBTF develops and distributes breastfeeding information and develops breastfeeding projects based on the Surgeon General's Call to Action.
Provide updated breastfeeding information to physicians who serve HFS participants	Completed	No update since last reported in the 2010 Perinatal Report.
Provide reimbursement for lactation counseling/support for breastfeeding women during the first weeks after birth	In Progress	The Affordable Care Act (ACA) of 2010 requires health plans to cover breastfeeding support and supplies, including lactation counseling and breast pumps. The Illinois WIC Program continues to provide breastfeeding counseling, support and access to pumps for eligible women and their infants. WIC works closely with community Lactation Consultants; including hospital, community organizations and private practice Lactation Consultants for referrals and information sharing. Seventy-six counties in Illinois provide WIC breastfeeding peer counselor services.

Labor Support During the Prenatal Period

Recommendation	Status	Update
Conduct research to determine the cost and benefits associated with continuous labor support provided through a doula or monitrice	In Progress	<p>DHS continues to fund Doula services through the Ounce of Prevention Fund. There are Doulas at four provider sites in the Chicago area that work with pregnant teens. As previously reported, studies have demonstrated higher initiation of breastfeeding among the teens who have received Doula services. These teens also continue to delay subsequent pregnancies for longer periods.</p> <p>Illinois was awarded funds in September 2011 to evaluate the effect of adding Doula services to select Maternal Infant Early Childhood Home Visiting (MIECHV) sites over the next several years. The expectation is that findings will demonstrate that the enhancement of Doula services produces better client outcomes than home visiting alone.</p>

Case Management and Home Visiting

Recommendation	Status	Update
Expand the existing case management program to target high-risk areas, which is supported by HFS	In Progress	Refer to the Better Birth Outcomes Program and data sharing initiatives under the SMART Act section of this report for additional information.
Expand outreach efforts (especially in Chicago) to locate "hard-to-reach" pregnant women and get them into care	Completed	Previously reported as completed in the 2012 Perinatal Report. Since that time a new approach to reach high-risk women is being implemented. Refer to the Better Birth Outcomes Program under the SMART Act section of this report for additional information.
Pilot more intensive models of case management, such as a program that covers six home visits during the prenatal period and 21 follow-up visits during the first two years of life	In Progress	<p>The Best Practices in Women's Health federal grant ended in May 2013. With intent to sustain the work of this project, FCM funds were awarded to University of Chicago in the spring, to allow expansion of the Registered Nurse Case Manager hours from part-time to full-time and continue the work through June 2013.</p> <p>Also, refer to the Better Birth Outcomes Program under the SMART Act section of this report for additional information.</p>

Public Act 93-0536 Other Priority Recommendations

Recommendation	Status	Update
Disseminate information to the provider community concerning standards of care.	In Progress	Through the Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant, HFS worked with perinatal experts and its Quality Improvement Organization (QIO), eQHealth Solutions, to develop a PCQT and High-Risk Referral Guidelines for prenatal care providers. The tool was endorsed by the Regional Perinatal System's Statewide Quality Council. Maternal Fetal Medicine Co-Directors from the Perinatal Networks provided feedback on the tool and referral guidelines. HFS is currently receiving technical assistance from CMS to test and implement the tool and referral guidelines. A quality improvement team has been convened and is recruiting prenatal practices to test the tool and referral guidelines, with assistance from the Perinatal Network Administrators.
Work with the provider community to educate their colleagues about the standards of care.	In Progress	See Above
Consider performing a focused quality study that assesses the extent to which providers are performing medical services according to ACOG guidelines	Completed	No update since last reported in the 2010 Perinatal Report.
Provide an educational campaign to encourage pregnant women to be active in their reproductive health care.	In Progress	HFS received funding through the Michael Reese Health Trust (MRHT) to promote prenatal, preconception and interconception health care by developing and implementing a public education strategy. HFS engaged EverThrive Illinois, formerly Illinois Maternal and Child Health Coalition (IMCHC) to develop the strategy which includes images/messages to promote preconception, prenatal and interconception care, electronic and print-ready educational materials, website content, a provider toolkit and a plan for increasing participation of HFS-enrolled pregnant women in Text4Baby. EverThrive Illinois collaborated with the CHIPRA Quality Demonstration Grant to develop the work products. This work is nearing completion and will be tested with at least two providers. One of the interconception images was used by the St. Clair County Health Department on billboards to inform women about waiting 18-24 months between pregnancies.
Compare the cost and outcomes of care provided by MCH and non-MCH enrolled physicians and also look at outcomes in different care settings, e.g., community health centers and private physician settings	No Longer Applicable	Cost and outcomes are being addressed by SMART Act activities through an interagency collaboration between HFS, DHS and DPH to improve birth outcomes and changes in the HFS delivery system.
Analyze birth outcomes utilizing predictive analytics to better understand factors affecting the health of births	In Progress	HFS has made significant progress to build the necessary infrastructure to aggregate data from a variety of sources and match mothers with babies to allow for robust analyses of HFS-funded births and factors affecting birth outcomes.
Look at the effects of nutritional support from WIC and food stamp participation on birth outcomes.	Not yet initiated	This evaluation has not yet been undertaken by DHS.

Other Related Initiatives		
Initiative	Status	Update
Task Force on Prematurity in Illinois	In Progress	<p>With a renewed national focus on prematurity by public health organizations, and the severe global toll of preterm birth, the Illinois State Legislature passed HR 111 in 2010. The resolution stipulated that the Perinatal Advisory Committee of DPH submit a written report by November 2012 providing findings and recommendations concerning reducing preterm births in Illinois.</p> <p>This report is intended to raise the awareness of policy makers, advocacy groups, providers, and the public about this serious problem, and to recommend proven strategies that will move Illinois toward the reduction of premature births. Specifically, the intent of this report is to:</p> <ul style="list-style-type: none"> • provide legislators with an overview of the extent and costs of preterm births in Illinois • identify known medical and social risk factors for preterm birth • make recommendations for evidence-based medical and public health strategies, as well as state system and policy changes, to reduce preterm births in Illinois. <p>DPH has taken on the challenge by ASTHO and MoD to all state health officials to reduce preterm births by 8 percent by 2014.</p>
Infant Mortality Collaborative Improvement and Innovation Network (CoIIN)	In Progress	<p>CoIIN was initiated to inform and advance the U.S. Department of Health and Human Services' (DHHS) first ever National Strategy to address infant mortality. The Region V CoIIN will serve as a collaborative and multi-state initiative to improve infant health outcomes, and reduce infant mortality and prematurity. The Illinois CoIIN Team includes representatives from HFS, DHS, DPH, academia, advocacy organizations, and other state MCH leaders and is collaborating through this initiative to develop a comprehensive statewide MCH plan, as well as working in-state and with DHHS Regions IV and VI on strategies to reduce infant mortality. Four common areas of focus for Region IV, V and VI state teams for reducing infant morbidity and mortality are Safe Sleep, Pre/Inter-conception Health, Early Elective Delivery, and Social Determinants of Health. State workgroups will be formed and members will identify strategies for addressing each of the four areas.</p>

Initiative	Status	Update
Association of Maternal and Child Health Programs (AMCHP) Action Learning Collaborative (ALC)	In Progress	<p>DHS and DPH are co-leading a collaborative effort provided by the AMCHP ALC initiative, and involving HFS, academia, and advocacy organizations to develop a plan to strengthen MCH infrastructure</p> <ul style="list-style-type: none"> • incorporate a life course perspective • link MCH services at a community level • improve health equity • reduce racial disparities • use shared data <p>This plan will support the efforts of the agencies to develop a plan to reduce infant mortality for the CoIIN initiative. For additional information about this initiative contact DHS or DPH.</p>
CHIPRA Child Health Quality Demonstration Grant	In Progress	<p>The CHIPRA Quality Demonstration Grant is currently in year 4 of the 5-year grant period. Activities completed and in progress include:</p> <ul style="list-style-type: none"> • The Prenatal Care Quality Tool (PCQT) was developed to assist providers in providing evidence-based prenatal care and making appropriate high-risk referrals. CHIPRA developed the tool based on ACOG/AAFP guidelines and the Illinois Perinatal Act. It was developed to be a tool to help prenatal providers assure that the content of prenatal care provided meets ACOG/AAFP guidelines. The tool can be used by either incorporating into electronic health records (EHR) or using as a paper checklist. HFS is participating in a quality initiative with CMS to pilot test the tool. Perinatal Network Administrators have been engaged to assist in identifying pilot providers. • The Prenatal Minimum Electronic Data Set (PMEDS) is a tool that electronically provides prenatal providers and hospitals a minimum set of available prenatal data, when the prenatal health record is not available. CHIPRA perinatal experts, with assistance from eQHealth Solutions, developed the data set based on ACOG/AAFP guidelines. The intention of the tool is to provide basic information to enable practitioners to make treatment decisions and avoid duplication of services, thereby improving outcomes and efficiency. HFS is working to develop an electronic framework to pilot test the tool. • CHIPRA developed an electronic tool kit for clinical and non-clinical providers to increase awareness of the benefit of preconception, prenatal, postpartum, and interconception care. The tool kit contains images/tag lines to promote preconception, prenatal, postpartum and interconception care, prenatal and postpartum checklist brochures, and resources and links to educational materials. HFS will test the tool kit with at least two sites and will launch the tool kit in 2014.

Initiative	Status	Update
Illinois Perinatal Quality Collaborative (ILPQC)	In Progress	HFS' CHIPRA grant provided start-up funding for ILPQC, an independent statewide collaborative organization, involving many perinatal stakeholders, focused on improving the perinatal care and health outcomes and reducing costs for Illinois women and infants. The Prematurity Task Force Report (HJR 111), included a recommendation for funding a statewide perinatal collaborative. A kick-off conference was held November 21, 2013 in Chicago, which created great interest and enthusiasm in the perinatal community. In partnership with the Illinois Hospital Association (IHA), the ILPQC is hosting a series of three OB Boot Camps beginning in December 2013 to engage and educate hospital perinatal teams on quality improvement, before launching its first OB quality improvement initiative in Spring 2014.

Public Act -097-0689 (SMART Act)

Initiative	Status	Update
Develop care coordination processes for women at risk of having a poor birth outcome with referral for prenatal case management.	In Progress	Associated with implementation of Public Act 097-0689(pdf) , referred to as the SMART Act, a statewide multi-agency initiative to improve birth outcomes and reduce costs associated with babies born with LBW and VLBW or fetal deaths is being developed and implemented. Among other activities, implementation includes developing two processes to enhance care coordination between HFS and DHS for women identified with the potential for a high-risk birth outcome. First, using claims data, when a woman with a previous high-cost birth is identified, information is shared with DHS' FCM and IPCM program. Second, a system is being developed whereby HFS enrolled providers can log into a secure web-based DHS Cornerstone application to send an electronic referral to the FCM/IPCM program for women who are pregnant and at risk for a poor birth outcome. This web-based system will include a feedback loop to inform the referring provider about the outcome of the referral. These two systems assure that women at risk for a poor birth outcome are identified and provided access to FCM/IPCM programs early in the prenatal period in order to improve the birth outcome.

Initiative	Status	Update
<p>Better Birth Outcomes Program (BBOP)- intensive prenatal case management program for high-risk pregnant women</p>	<p>In Progress</p>	<p>During January 2013, a total of 22 agencies received state and Title V funding to provide an intensive level of case management services to high-risk pregnant women. These providers are targeting areas of the state with higher than average Medicaid costs associated with poor birth outcomes, and with higher than average numbers of women delivering premature infants. As of October 2013, there were approximately 1,200 women enrolled. The agencies are required to:</p> <ul style="list-style-type: none"> • coordinate care with medical providers, and other community providers; • actively engage in outreach; • use a standardized prenatal curriculum from March of Dimes (MoD) that focuses on 1st trimester enrollment, prenatal education, linkage with appropriate providers, coordinated model of care, community outreach, postpartum health visit interconceptional spacing; • use a standard risk assessment tool; and, • assure women complete post-partum care visits and are linked to a reproductive health care provider post-delivery. <p>The intent is to move existing FCM providers to this model of care over the next several years, with initial steps incorporated into the FY 14 FCM contract.</p>
<p>eQHealth Elective Delivery Survey - As a component of HFS' efforts to improve maternal and newborn health, one provision of the SMART Act is the evaluation of appropriate practice of cesarean delivery. eQHealth surveyed Illinois birthing hospitals to determine which providers have instituted policies to prevent elective induction and delivery prior to 39 weeks.</p>	<p>Completed</p>	<p>Many Illinois hospitals are participating in voluntary reporting of elective induction data and have instituted policies to deter the practice of preterm induction. eQHealth Solutions analyzed paid claims from CY2011 and identified 121 Illinois birthing hospitals for the eQHealth Elective Delivery Survey of which 82 of the providers responded to the survey. Of the responders, 31 facilities use ACOG's Patient Safety Checklist for Scheduling Induction of Labor which includes a hard-stop policy that prohibits a patient from being scheduled for elective induction prior to 39 weeks gestational age. Of the facilities that do not use the ACOG checklist, 38 have mandated their own hard-stop policy to prevent scheduling of elective preterm inductions. Twelve birthing hospitals do not use the ACOG checklist or hard-stop policies, but these providers do have departmental guidelines and a quality process to review all elective inductions. Only one hospital does not use ACOG, hard-stop policies, or departmental review for elective inductions.</p>

Initiative	Status	Update
<p>Prepayment review for elective Cesarean section – Best outcomes are achieved when babies are born at full term via normal vaginal delivery; and national efforts are focusing on preventable preterm births and the mode of child birth, specifically the practice of elective induction and cesarean delivery is being examined by various entities including the March of Dimes. As a component of HFS’ efforts to improve maternal and newborn health, one provision of the SMART Act requires HFS to only pay normal vaginal delivery rate for Cesarean sections, unless the Cesarean section is medically necessary.</p>	<p>Ongoing</p>	<p>HFS along with eQHealth Solutions, implemented utilization and quality review of a sample of Cesarean section medical records to validate the appropriateness of the Cesarean section delivery. Weekly, a random sample of 25 Cesarean section delivery records is selected for review. Nurse reviewers apply InterQual and ACOG’s Cesarean section criteria to each medical record. Cesarean section deliveries that meet these criteria are approved at the nurse level. When utilization criteria are not met or a quality outcome is identified, the record is referred to an obstetrician physician consultant for further review. The first report covered the first 25 cases selected for review. For the first report, 18 of 25 records were approved at the nurse level. The remaining seven records were referred to first level physician review. All seven cases were repeat Cesarean sections. Each medical record contained evidence of discussions with the patient about the risk-benefit of repeat Cesarean section deliveries, appropriate checklists were documented and all consents were signed prior to delivery. All seven cases were approved. To date, nine cases were determined to be medically unnecessary and payment was reduced to the normal vaginal delivery rate resulting in a savings of \$1,069 per case. Additionally, providers failed to provide the medical record for 33 cases. No payment will be made for these cases which results in a savings of \$3,353 per case. Anecdotally, we have noted an approximate 2 percentage point drop in Cesarean sections since announcing the new review policy in late 2012. Whether this is related to the new procedure or is part of an independent trend is unknown at this time.</p>

Initiative	Status	Update
Birthing Centers	In Progress	<p>Section 2301, of the Patient Protection and Affordable Care Act, requires states that recognize freestanding birth centers (FSBC), and the services rendered by certain professionals in such centers (to the extent state licensing law allows), cover the services provided by these centers and professionals as mandatory Medicaid services eligible for federal financial participation. Pursuant to the Alternative Health Care Delivery Act [210ILCS 53], as amended, the Illinois Department of Public Health has established by rulemaking licensure provisions for FSBCs.</p> <p>Subsequently, PCC Community Wellness Center and its South Family Health Center in Berwyn were issued a Certificate of Need on February 4, 2013, to serve as the first FSBC in Illinois, subject to finalization of their DPH license. This should occur in early 2014. In April of this year, HFS published a Notice of Public Information with a proposal to reimburse FSBCs. Administrative rules were submitted on May 16, 2013, and published in the Illinois Register on May 31, 2013. Comments from interested parties were received, and taken into consideration. The rulemaking was considered at the JCAR meeting scheduled for October 22, 2013. The rules were adopted on October 28, 2013, and published in the Illinois Register on November 8, 2013. HFS is now able to reimburse for labor and delivery services provided to Medicaid recipients offered through state-licensed FSBCs.</p>

Current Status of Perinatal Health for Illinois Department of Healthcare and Family Services' Participants

The following information is based on the most current State data from HFS' paid claims data matched with shared data from DHS' Cornerstone system and DPH's Vital Records. The period reported varies by measure and covers either a three- or five-year trend period. These charts and graphs show what is currently known about HFS births, including demographics, health care, outcomes and costs of services. Information from the combined data is presented in the summary to follow.

The following caveats are provided as a caution about the interpretation and use of the data and charts provided. Since publication of the 2012 Perinatal Report, there have been enhancements to the match processes used in analyses of linked Mom/baby pairs. This includes enhancing the matching process between DPH Vital Records and HFS data, and the process identifying a matched Mom/baby pair. The definitions of variables included in selected analysis strategies were revised to conform to Healthcare Effectiveness Data and Information Set (HEDIS®) measure specifications (i.e., delivery, prenatal and postpartum care). More information is included in the Technical Notes section. These changes mean that data depicted in this report for CY2008-CY2009 are not necessarily consistent or comparable to data reported for those years included in the 2012 Perinatal Report.

This report uses uncertified Vital Records data for CY2010-CY2012 from DPH. The use of these uncertified data is necessary since they are the only data available since the publication of the 2012 Perinatal Report. Therefore, to not use them would mean having no updated charts related to birth rates and birth outcomes since our last report. Caution should be exercised, however, in interpreting charts and graphs that are driven by Vital Records data. Notes attached to each chart describe whether Vital Records data are used in the analysis. Observing these cautions, the narrative that follows provides information about the directionality of a trend based on Vital Records data, but does not include an analysis of the magnitude of difference within or between groups.

Birth Demographics

- Based on uncertified DPH Vital Records data, total Illinois and Medicaid-covered deliveries appear to be declining. However, the percent of Illinois deliveries covered by Medicaid remains at nearly 55 percent. (Appendix I, **Number of Illinois Deliveries Covered by Medicaid CY2008–CY2012** [Chart 1] and **Percentage of Illinois Deliveries Covered by Medicaid CY2008–CY2012** [Chart 2])
- Based on uncertified Vital Records data, total Illinois and Medicaid-covered deliveries among teens decreased. However, Medicaid continues to cover almost 95 percent of teen deliveries in Illinois. (Appendix I, **Number of Illinois Teen Deliveries Covered by Medicaid CY2008–CY2012** [Chart 3] and **Percentage of Illinois Teen Deliveries Covered by Medicaid CY2008–CY2012** [Chart 4])

- According to the 2009 Pregnancy Risk Assessment Monitoring System (PRAMS) data, 59.6 percent of Medicaid births were unintended. Women eligible for HFS' medical programs (or low-income women) are more likely to have an unintended birth than women not eligible for HFS' medical programs. Updated PRAMS data are not available after 2009. (Appendix I, **Unintended Pregnancy Illinois PRAMS 2009** [Chart 5])
- The number of women experiencing a first-time birth appears to have declined, while those experiencing a subsequent birth (2nd or higher) appears to have increased. This could also be a function of improved matching of Moms and Babies. (Appendix I, **Medicaid Births by Birth Order CY2008–CY2012** [Chart 6])
- Of those women experiencing a subsequent birth, there appears to be an increase in the percentage of births with a 24-month or greater birth interval based on provisional data. However, there also appears to be a slight increase in those with a birth interval less than 12 months. Birth intervals of between 18 and 24 months are optimal for better birth outcomes. (Appendix I, **Subsequent Births by Interval in Months CY2008–CY2012** [Chart 7])

Delivery

- The percentage of HFS vaginal deliveries vs. Cesarean section deliveries increased from 28.3 percent in CY2008 to 29.9 percent in CY2012. This represents a 1.6 percentage point increase or +5.7 percent change. (Appendix I, **Medicaid Vaginal vs. Cesarean Deliveries CY2008–CY2012** [Chart 8])
- From CY2008 to CY2012, the Cesarean section rate among women experiencing a first birth of a single fetus in vertex position rose by 2 percentage points or +9.2 percent change (from 21.8% in CY2008 to 23.8% in CY2012). An increase in the Cesarean section rate may indicate more elective deliveries are occurring. (Appendix I, **Cesarean Rate for Nulliparous Singleton Vertex CY2008–CY2012** [Chart 9])

Birth Outcomes

- Based on uncertified Vital Records data (CY2010-CY2012), it appears that normal births have decreased while other non-normal DRG births have increased. IM, LBW (1,501 to 2,500 grams) and VLBW (\leq 1,500 grams) are relatively stable. Other Non-normal Diagnosis Related Grouping (DRG) births are defined as a DRG of 385, 386, 387, 388, 389, 390, 985, 986, 987, or 989⁴ at anytime during first year of life. (Appendix I, **Medicaid Births by Birth Outcome CY2008–CY2012** [Chart 10])
- Based on uncertified Vital Records data, the rate of VLBW births was relatively stable for both Medicaid and the total Illinois population. (Appendix I, **Very Low Birth Weight Rate: All Races CY2008–CY2012** [Chart 11])

⁴ DRGs: 385, 985=Neonate, Died or Transferred to Another Acute Care Facility
 386, 986= Extreme Immaturity or Respiratory Distress Syndrome, Neonate
 387, 987=Prematurity with Major Problems
 388=Prematurity without Major Problems
 389, 989=Full Term Neonate with Major Problems
 390= Neonate with Other Significant Problems

- Based on uncertified Vital Records data (CY2010-CY2012), the LBW ($\leq 2,500$ grams) rate appears relatively stable for those covered by Medicaid and for the total Illinois population. (Appendix I, **Low Birth Weight Rate: All Races CY2008–CY2012** [Chart 12])
- Based on certified Vital Records data (CY2010-CY2012), the Illinois infant mortality rate per 1,000 live births decreased from 10.7 in 1990 to 6.9 in 2009. Although the infant mortality rate for African Americans has continued to decrease, the racial disparity continues to be dramatic, with the African American rate two and a half times higher than the White rate (14.0 and 5.4, respectively, 2009). (Appendix I, **Illinois Infant Mortality Rate by Race, 1990-2009** [Chart 13])
- Based on certified Vital Records data, the Medicaid infant mortality rate per 1,000 live births increased from CY2008 (7.1) to CY2009 (7.7). This is a percent change increase of +8.5. (Appendix I, **Medicaid Infant Mortality Rate CY2008–CY2009** [Chart 14])
- DPH administers the Illinois Perinatal System, which is a statewide system that provides services targeted to pregnant women with high-risk conditions and newborns requiring neonatal intensive care. There are ten regions throughout the state, each led by an Administrative Perinatal Center, which must be part of a university or university-affiliated hospital. Based on uncertified Vital Records data (CY2010-CY2012), among Medicaid covered deliveries, approximately one-half of all VLBW births were delivered at a Perinatal Level III facility, followed by nearly one-third of LBW births and those resulting in demise, and approximately one-quarter of other non-normal DRG deliveries. This shows that there is opportunity to improve the use of the Perinatal System for delivery of high-risk births. (Appendix I, **Medicaid Deliveries at a Level III Facility by Birth Outcome CY2008–CY2012** [Chart 15])
- Among Medicaid covered deliveries at a Perinatal Level III facility, over one-half of VLBW births, nearly one-third of LBW births and less than 30 percent of other non-normal DRG births were delivered by Cesarean section. Among normal births delivered at a Level III facility, less than one-quarter were delivered by Cesarean section. These data do not account for other conditions of the mother or infant that may have necessitated delivery by Cesarean section and are based on uncertified Vital Records data (CY2010-CY2012). (Appendix I, **Medicaid Cesarean Deliveries at a Level III Facility by Birth Outcome CY2008–CY2012** [Chart 16])
- Using uncertified Vital Records data to identify births, from CY2010 to CY2012 the number of HFS-eligible women participating in WIC or FCM has decreased as the number of births has decreased. This appears to reverse the previous trend of increasing WIC or FCM participation as birth numbers were decreasing. There are a few possible reasons for the decrease in participation 1) is provisional data for CY2010 through CY2012, 2) fewer available FCM providers as health departments have dropped the program and 3) smaller WIC caseloads due to increased Supplemental Nutrition Assistance Program (SNAP) benefits. (Appendix I, **Number and Percent of Medicaid Births Served by WIC or FCM CY2008–CY2012** [Chart 17])

Prenatal and Postpartum Care

- HFS uses HEDIS® measures to monitor the frequency and timing of prenatal care. The percentage of pregnant women covered by HFS receiving less than 21 percent of

recommended prenatal care visits is relatively stable at less than 5.0 percent. The percentage of pregnant women covered by HFS receiving more than 81% of recommended prenatal care visits decreased from CY2010 (82.7%) to CY2012 (80.7%) by 2.0 percentage points or a 2.4 percent change. (Appendix I, **Frequency of Ongoing Prenatal Care CY2010–CY2012** [Chart 18])

- The percentage of pregnant women covered by HFS who received timely prenatal care visits is at 50 percent, showing a need for improvement. Timely prenatal care visits are defined as visits occurring within the first trimester of the pregnancy, or within 42 days of enrollment in one of HFS' medical programs. (Appendix I, **Timeliness of Prenatal Care CY2010–CY2012** [Chart 19])
- Using uncertified Vital Records data (CY2010-CY2012), approximately 50 percent of VLBW births, about 50 percent of LBW births, and about 40 percent of all other non-normal DRG births received any prenatal care at a Perinatal Level III facility. This represents an opportunity for improvement to assure that high-risk women receive appropriate referral to the Perinatal System with coordination between the primary care physician, the women's health care provider, and the Perinatal System. (Appendix I, **Medicaid Prenatal Services at a Level III Facility by Birth Outcome CY2008– CY2012** [Chart 20])
- The percentage of women covered by HFS who received postpartum care on or between three to six weeks after delivery dropped by 3.2 percentage points (or a -5.5 percent change) between CY2010 and CY2012. This represents an opportunity for improvement to ensure postpartum care is received and reproductive health services, including family planning to promote planned pregnancies, is obtained interconceptionally. (Appendix I, **Timeliness of Postpartum Care CY2010–CY2012** [Chart 21])

Risk Factors

- Women covered by HFS reported higher rates of partner abuse before and during pregnancy when compared to other women. The rate of HFS women reporting abuse before pregnancy is 4.6 percent compared to less than one percent of women not covered by HFS. More than three percent of women covered by HFS reported abuse during pregnancy, compared to zero percent for non-HFS covered women. PRAMS data are not available after CY2009. (Appendix I, **Physical Abuse: Illinois PRAMS 2009** [Chart 22])
- HFS covered women are less likely to use alcohol before and during pregnancy than other women. About 41 percent of HFS women reported using alcohol before pregnancy compared to 68 percent of non-HFS covered women. During the last three months of pregnancy, 4.4 percent of HFS women reported using alcohol, compared to 9.6 percent of non-HFS covered women. (Appendix I, **Prevalence of Drinking Before and During Pregnancy** [Chart 23])
- HFS covered women are considerably more likely to smoke than other women before and during pregnancy. Nearly 26 percent of HFS women smoked before pregnancy, and 12.5 percent smoked during the last three months of pregnancy, compared to nearly 16 percent of other women who smoked before pregnancy, and 5.3 percent who smoked during pregnancy. (Appendix I, **Prevalence of Smoking Before and During Pregnancy** [Chart 24])

- There were over 24,500 calls to the Illinois Tobacco Quitline during SFY2012. This represents a 25 percent increase in calls from SFY2011. The majority of these calls were from females (61.6%). There were a total of 418 callers who attributed their call to an HFS mailing. (Appendix I, **Illinois Tobacco Quitline Calls for SFY2011–SFY2012** [Chart 25])
- Based on CY2009 PRAMS data, HFS covered women reported being diagnosed with postpartum depression at a higher rate than other women. Among HFS women, 11.2 percent reported a postpartum depression diagnosis compared with 6.6 percent of non-HFS covered women. (Appendix I, **Postpartum Depression Diagnosis: Illinois PRAMS 2009**[Chart 26])
- Using HFS claims data, from CY2010 to CY2012, among women who received perinatal depression screening, approximately 33 percent received it only prenatally; approximately 30 percent received only postpartum screening; and less than 20 percent received both prenatal and postpartum depression screenings. (Appendix I, **Perinatal Depression Screenings CY2010–CY2012** [Chart 27])
- Chlamydia screening among females 16 to 20 years of age declined from CY2010 to CY2012 by 4.1 percentage points or a -8.7 percent change. (Appendix I, **Chlamydia Screening Among Females 16-20 Years of Age CY2010–CY2012** [Chart 28])
- HFS conducted an odds ratio analysis to determine conditions associated with an adverse birth outcome. The results, (Appendix I, **Odds Ratio of Adverse Birth Outcomes for Women with a Previous Birth Covered by Medicaid by Selected Risk Factors – CY2011 Births** [Chart 29]), show that the following top ten conditions are associated with an adverse birth outcome (LBW, VLBW or IM):
 - Multiple birth
 - Eclampsia
 - Previous moderately low birth weight
 - Diabetes
 - Incompetent cervix
 - Premature rupture of membrane
 - Polyhydramnios
 - Renal
 - Maternal age
 - Hypertension

Note: An odds ratio of greater than one indicates a higher probability of an adverse outcome. Only women who have previously given birth were used for the analysis. Women may be counted in more than one pre-existing condition. The “Previous Very Low Birth Weight” outcome was excluded from the list because the ratio was not significant and the condition was not associated with an adverse outcome since the confidence interval crossed 1.0. HFS continues to consider both the odds ratio and the confidence interval to determine whether the risk factor is one that would be appropriate to target with a population-based intervention. This information provides an opportunity for HFS to target women with these previous outcomes and health conditions for more intensive interventions designed to improve subsequent birth outcomes.

Family Planning

- Using uncertified Vital Records data (CY2010-CY2012), the percentage of HFS-eligible women receiving family planning services (birth control) within six months after delivery has remained slightly higher among women who experienced a normal birth compared to those with a poor birth outcome. Over one-quarter to nearly one-half of women, depending on the birth outcome category, do not receive family planning services within six months after delivery. Excluding infant mortality, women who had a VLBW birth are the least likely to receive family planning services within six months post-delivery. (Appendix I, **Medicaid Births with Family Planning Service Within Six Months After Delivery CY2008–CY2012** [Chart 30])
- HFS' Family Planning Waiver, Illinois Healthy Women, shows promise in reducing unplanned pregnancies. The following highlights some of the successes IHW experienced since inception (data not shown in charts):
 - **Decrease in HFS births** – An estimated 42,891 births were averted since the inception of IHW in 2004.
 - **Decrease in fertility rates** – The average fertility rate for IHW women is 1.9 percent while the average fertility rate of low-income women in Illinois (<200% FPL) is approximately 11.6 percent, and the total population is approximately 7.0 percent. (Enterprise Data Warehouse [EDW] and Birth File Match, 2011)
 - **More low-income women are using family planning services** – Family planning utilization has increased steadily over the nine-year period. Family planning utilization rose from a 40 percent participation rate in the first year of the waiver to 86.2 percent in the ninth year of the waiver of those enrolled. (Executive Information System [EIS] Report 141 and 143, 2013)
 - **IHW is reaching the target population** – Throughout the waiver, 51 percent of women who applied for IHW were between 19 and 24 years of age and 75 percent have not previously been pregnant.
 - **Access to care has improved** – From Waiver Year 1 to Waiver Year 9 (April 2004-March 2013), the number of HFS family planning providers increased by 38.1 percent; and, approximately 86.5 percent of respondents on the IHW Customer Satisfaction Survey reported the ability to access primary care services, if they needed them.
 - **IHW is cost effective** – HFS spent an average of \$396 per year, per IHW enrollee for family planning services as compared to the average cost of pregnancy, delivery and the first year of an infant's life of \$12,300 (Waiver Year 9/April 2012-March 2013). An estimated total cost savings of approximately \$494 million in medical services has resulted from IHW to date.

HFS Eligibility

- Of HFS-eligible women who gave birth, data show an apparent increase in the percent enrolled ≥ 12 months prior to delivery. There is a decrease in the percent enrolled three to nine months and ≤ 90 day prior to the delivery. Post delivery, there are more women eligible for ≥ 9 months. These trends indicate opportunity exists to provide care inter-conceptionally. Data for CY2010-CY2012 use uncertified Vital Records. (Appendix I, **Women Enrolled in Medicaid Before and After Delivery All Births CY2008, CY2010 and CY2012** [Chart 31])
- Of HFS-eligible women who experienced a poor birth outcome, data show approximately 50 percent were eligible ≥ 12 months prior to delivery and more women were eligible for ≥ 9

months post-delivery. This represents an opportunity to engage these women in interconception care aimed at improving the outcome of subsequent births. Data for CY2010-CY2012 use uncertified Vital Records. (Appendix I, **Women Enrolled in Medicaid Before and After Delivery by Selected Birth Outcomes CY2008, CY2010 and CY2012** [Chart 32])

As described below, improving birth outcomes presents an opportunity for substantial cost savings.

Birth Costs

- The majority of HFS birth costs are for births with poor outcomes. The combined costs of prenatal, delivery, postpartum and infant's first year of life for non-normal births (i.e., IM, VLBW, LBW, and other non-normal DRGs) are nearly three times the costs for a normal birth (about \$1.0B per year compared to approximately \$350M per year for normal births). Data for CY2010-CY2012 use uncertified Vital Records. (Appendix I, **Medicaid Birth Costs by Outcome CY2008 – CY2012** [Chart 33])
- The lowest average cost is for a normal birth at approximately \$7,700 per birth (prenatal care, delivery, postpartum, and infant's first year of life), while VLBW average cost is the highest at approximately \$300,000 per birth. HFS has implemented several initiatives to improve health outcomes and reduce the number of women experiencing non-normal births (including IM, VLBW, LBW, and other non-normal DRGs) as efforts to save the State costs for avoidable adverse birth outcomes. Data for CY2010-CY2012 use uncertified Vital Records. (Appendix I, **Medicaid Birth Average Costs by Outcome CY2008 – CY2012** [Chart 34])
- While VLBW births represent approximately one percent of all birth outcomes, they account for approximately 20 percent of total birth costs (prenatal care, delivery, postpartum, and infant's first year of life). Data for CY2010-CY2012 use uncertified Vital Records. (Appendix I, **Percentage of Medicaid Birth Cost and Average by Outcome CY2008, CY2010 and CY2012** [Chart 35])

Future Direction for 2014 – 2016 Quality Improvement for Perinatal Healthcare

While the preceding sections of this report make it clear there is tremendous activity occurring within the State, including within HFS and sister state agencies, to improve birth outcomes and reduce the personal, medical, and social cost burden of prematurity, infant mortality and other poor birth outcomes among the Medicaid population, it also is clear that much work still needs to be done. Given the State Medical Assistance program covers the costs of well over half of all births and a staggering 95 percent of teen births in Illinois each year, the imperative for action and the State's interests are not debatable.

Even though overall numbers are declining, too many births to Medicaid enrollees are "unplanned" or unintended. While interconceptional period data suggest we may be seeing some improvement in this measure, based on our data the proportion of births by Cesarean section is on the rise, even among first time births. A certain proportion of these Cesarean section deliveries, with all the attendant risks associated with surgery, are believed to be elective and do not meet accepted standards for medical necessity. HFS, working in conjunction with our QIO and State partners, will continue to focus on eliminating non-medically indicated Cesarean sections and other elective, pre-term deliveries.

The percentage of "non-normal" births (e.g., prematurity, respiratory distress syndrome) continues to rise, and is a cause for concern. Another significant source of concern is the growing percentage of VLBW infants (< 1500 grams at birth). Although small in numbers (<2% of all births), and a testament to the effectiveness of our Perinatal System, these infants are the most at risk for significant health problems and developmental delays throughout life.

The costs of caring for mother and a VLBW baby during the first year of life are, on average, nearly 40 times greater than if the birth was "normal" and uncomplicated. Even though VLBW infants represent less than 2 percent of all births, they account for over 20 percent of Medicaid costs of care for mom and baby during the first year of life. It is important to bear in mind that many more than 2 percent of births are under 1500 grams, but if the VLBW infant does not survive the first year of life, which is quite possible, they are included under the IM classification, not VLBW. These classifications are mutually exclusive for data analysis purposes. The point: VLBW is a significant and costly matter whether or not the infant survives the first year of life.

There has been some slippage in the percentage of births preceded by adequate prenatal care, although we note that some slight improvement in timeliness of prenatal care (generally the first trimester) has occurred. Timeliness of post-partum care also needs to improve, as some decline has been noted in recent years.

The percentage of Medicaid enrolled birthing women who are subject to abuse during pregnancy is 71 percent higher than for the general delivering population; this is unacceptable. On a more positive note, Medicaid women who deliver are less likely to drink alcohol before and during pregnancy than the general population who deliver, but they are more likely to smoke. Postpartum depression appears to be slightly higher among the Medicaid population, and should continue to be a focus of concern.

Chlamydia screening rates among 16-20 year old women on Medicaid also have shown some decline; and this is not a good sign. In women, Chlamydia can be asymptomatic. If the

infection is left untreated, it may lead to infertility. The infection also presents certain other risks for mom and baby should pregnancy occur.

The percentage of women who deliver under Medicaid and are enrolled in family planning at 6 months post-delivery also has declined. Subsequent unplanned pregnancies can be avoided with proper attention to this matter. Contraception utilization allows for greater birth intervals between pregnancy.

Perhaps the greatest avenue for improvement rests in addressing health disparities, whether they are based on geographic, racial or other socio-economic factors. The graphs, maps and charts contained in the appendices to this report demonstrate that IM, LBW and VLBW are not evenly distributed throughout the state. There are certain areas of the state where the rates are much higher than others.

Teens are disproportionately represented in our Medicaid birthing population. African-Americans continue to experience a much higher infant mortality rate than the white population. While there has been a 36.7 percent decline in the African-American infant mortality rate in Illinois over the past 20 years, the rate has remained 2 ½ times that of whites throughout this entire period. The intransigence of this disparity is as frustrating as it is noteworthy. Efforts to reduce disparities must be expanded.

There also is a potential to overlook that nearly 100 percent of our enrollees, by definition, are low income. Such status is necessary to qualify for virtually all services. Income is one of the two deciding factors in determining socio-economic status (education is the other), and socio-economic status is a powerful contributor to health in and of itself. Use of a more epidemiological, population based approach to data analysis and targeting of interventions should become the standard within HFS, and promises to bear fruit in the years ahead.

To address these and other matters directly related to the maternal health and positive birth outcomes of Medicaid enrollees, HFS is championing and actively engaged in a multi-pronged approach.

As HFS moves toward a managed care delivery platform for the majority of recipients of the Medical Assistance Program, many opportunities present themselves for improvement in birth outcomes. All contracts with care coordination/managed care plans call for coordinated care planning and management of pregnant enrollees, as well as the use of "evidenced-based" standards of care. Quality of care and performance measures on which plans will be evaluated place an emphasis on timeliness and adequacy of prenatal care, access to specialty care and behavioral health services, a focus on care transitions and follow-up, and access to family planning and interconception care between pregnancies. In most cases, care coordination/managed care plans also will share a financial risk for the costs associated with poor birth outcomes, thus adding an additional element and incentive.

HFS also is working with its Voluntary Managed Care Organizations (VMCOs) to improve the scope of contraceptive care provided. To better ascertain that each Plan has family planning protocols, which includes a comprehensive list of contraceptives on their formulary, HFS is reviewing and amending contracts to include clarifying language to ensure coverage of, and access to, the recommended standards of care set by CDC and/or ACOG for sexual and reproductive health, contraceptive care, and STI care, as well as all FDA-approved contraceptive methods and STI treatment drugs. This effort will help assure that individuals of

reproductive age have access to all types of birth control methods, including long-acting reversible contraception (LARC) methods, thus allowing them to choose the birth control method that is best for them in planning if and when to have a baby. The desired result of this effort is to help reduce the unintended pregnancy rate and increase birth spacing, thereby improving birth outcomes. Once the VMCO's contract language is finalized, HFS will include the language in all MCO contracts.

HFS has only recently joined a multi-state consortium organized by DHHS to focus on reducing the unacceptably high infant mortality rates in the Midwest (DHHS Region V). The effort is referred to as, CoIIN. Partnering with us and providing leadership on this initiative are colleagues from DPH and DHS. Community, professional, academic and advocacy organizations also are active and involved in this effort. A Regional and Statewide Strategic Plan is under development and should help focus and guide efforts over the next few years. The Infant Mortality Reduction Plan will use a "Life Cycle" perspective approach. A thorough description of this and other initiatives is contained in the preceding "Status of Priority Recommendations" section of this report.

Another initiative showing great promise, and only recently underway, is the establishment of an ILPQC. Spearheaded by the HFS CHIPRA Quality Demonstration Grant Project and patterned after models successfully implemented in other states, including Ohio and Florida, the ILPQC will serve as an independent, voluntary statewide collaborative to bring together the various perinatal stakeholders (maternal/fetal medicine specialists, OBs, neonatologists, pediatricians, hospitals, provider associations, payers, state agencies and advocacy groups) to collectively and systematically address the most vexing challenges to improving birth outcomes. They plan to tackle such issues as reducing early, elective deliveries. The group intends to use data collection, analysis and reporting, education and sharing of best-practices, and peer interaction to drive quality improvement statewide and within the Medicaid population.

Another CHIPRA Quality Demonstration Grant Project initiative under development and testing is PMEDS. Still in the beta-testing phase as of this writing, this tool will assemble in a single electronic document, transmit to a secure temporary storage location, and then make available in real time a set of minimally necessary data (e.g., demographics, labs, relevant medical and social history) on a pregnant Medicaid enrollee who presents to a birthing hospital in labor. The data will come from the woman's prenatal care provider, who will be responsible for initial data entry. The tool was developed with input from the HFS QIO and obstetrical professionals and associations. The Illinois Health Information Exchange (ILHIE) is assisting HFS in exploring options for secure transmission, storage, retrieval and re-transmission of the prenatal data set to approved facilities. The benefits of the PMEDS tool cannot be overstated. Patient medical care and safety will be greatly enhanced by the real time sharing of such critical patient information. Other CHIPRA Quality Demonstration Grant initiatives of great promise in the future are described in detail in the "Status of Priority Recommendations" section. These include a PCQT to assist providers in delivering evidence-based prenatal care in a comprehensive and timely manner, and a Provider Toolkit to increase awareness of the benefits of preconception, family planning, prenatal, postpartum and interconception care, and to provide ready checklists, links and educational materials to assist.

The foregoing suggests the potential power and utility of using Health Information Technology (HIT) to a much greater extent in assuring high quality maternal and infant healthcare. Having essential patient demographic, clinical, pharmaceutical, lab and ancillary data entered by treating providers into a certified EHR will go a long way in assuring quality of care, but this

alone is not enough. These data not only must be readily accessible to those in the same health network, but they also must be accessible to other care providers outside the formal network, via secure health information exchanges. This is one of the great benefits of contracting with both formal and community-based patient care networks.

Having and sharing data are not sufficient either. It is how you use the data to improve maternal health and improve birth outcomes that is another key element of success. To this end, HFS has been partnering with our colleagues at DHS for nearly two years to develop a data sharing methodology to identify women at high risk for a poor pregnancy outcome and assure linkage with a DHS contracted case management agency capable of offering an intensive level of patient engagement, care coordination and support. The program is referred to as the "Better Birth Outcomes" initiative. Working jointly, the team has created and tested a risk algorithm based not only on high costs associated with previous poor birth outcomes, but also odds ratios related to clinical and social risk factors, such as diabetes and substance abuse. Once fully deployed, this program should be of tremendous value in reducing poor birth outcomes, and the associated costs, through data sharing, early identification, expedited interagency referrals, aggressive outreach and better care management.

Appendix I: Technical Notes

Results from previous Perinatal Reports are not comparable to the current report due to methodological changes in the data analysis strategy, and improvements in matching processes between DPH's Vital Records Birth File and in the matching algorithm used to identify Mom/baby pairs. Analyses of delivery and birth data are conducted using those with full eligibility on date of delivery/birth.

Births/Babies: Selects those with full eligibility with a birth date in the specified calendar year. Additionally, births are identified using selected DRG group codes and diagnosis codes occurring within the specified calendar year.

Birth Outcome: Selects birth weight and death year date fields from Vital Records. Using this information low birth weight (LBW), very low birth weight (VLBW), infant mortality (IM), Other Non-normal DRG, and Normal DRG are categorized into mutually exclusive groups using the following hierarchy:

- If there is a Death Date, then Birth Outcome is set to IM (no further analysis conducted, e.g., checking birth weight)
- Else if birth weight is between 0-1500 grams, then Birth Outcome is set to VLBW
- Else if birth weight is between 1501-2500 grams, then Birth Outcome is set to LBW
- Else if none of the above and if there is a claim with a non-normal DRG (i.e., established hierarchically by DRGs 985, 385, 986, 386, 987, 387, 388, 989, 389, or 390) within first year of life, then Birth Outcome is set to Other Non-normal DRG
- Else if there is a claim with a normal DRG, then Birth Outcome is set to Normal
- Else Birth Outcome is set to Unknown

Using the above Birth Outcome hierarchy, LBW and VLBW rates are not comparable to LBW and VLBW rates reported as independent data points since the latter uses only known birth weights to define the numerator and denominator.

HFS Covered Births: Deliveries where the recipient had full benefits on date of delivery.

Deliveries: Identified using DRG codes (370-375), diagnosis codes and procedures codes associated with the Mom. Diagnosis codes are from HEDIS® specifications defining deliveries. In claims data, deliveries span multiple days. Therefore, "Event Begin" and "Event End" dates are identified for each delivery corresponding to first admission date and last discharge date, respectively. Delivery date is initially set to admission date, but is updated to the baby's birth date after a Mom-to-baby match is identified. Deliveries include those with full benefits on date of delivery.

Delivery Costs: Determined by DRG, diagnosis and procedures codes used to identify a delivery and listed on claims occurring between the "Event Begin" and "Event End" dates.

Family Planning: Services are selected by specific diagnosis codes when they occur at any time in the year after Delivery date. This also includes pharmacy claims with specific therapeutic class codes occurring between 10 days after and 365 days after Delivery Date. The family planning summary counts the services by 3 months, 6 months and 12 months and totals the costs for the year.

Level III Deliveries: Identified when deliveries occur at a hospital designated by DPH as a Level III facility.

Level III Prenatal Services: Identified when "Prenatal Services" occur at a hospital designated by DPH as a Level III facility.

Low Birth Weight: Identified when birth weight is between one and 2,500 grams. The exception is that Low Birth Weight is between 1,501 and 2,500 grams when included in charts depicting birth outcomes to assure that each birth outcome group is mutually exclusive. See also the "Birth Outcome" note, above.

Maps: Map ranges for Illinois and HFS rates were kept as similar as possible. However, HFS maps are affected by the matching process and lack of sufficient address information both of which will reduce the resulting number of qualifying cases that can be geo-coded.

Medicaid: As used in data chart titles, this term is broadly inclusive of all those receiving medical services and is not indicative of a specific coverage category (i.e., Title 19). "HFS" is used in data chart keys as a shorter moniker for "Medicaid".

Mom/Baby Match: Matching of Moms and babies was done via a set of iterations. The majority matched in the first iteration that links those with the same Medicaid case id, whose birth (baby) and delivery (Mom) were at the same hospital and within 15 days of each other. The match is a hierarchy of iterations that become less strict with each pass through the data. Department of Public Health Vital Records data also were used to link Moms and babies via Birth Certificate identifiers using an HFS matching algorithm based on various fields such as first name, last name, date of birth and social security number.

Postpartum Services: Identified using diagnosis, procedure and revenue codes defined in HEDIS® specifications of postpartum care and that occur between 21 and 56 days after the delivery date, per HEDIS® specifications. The exception is Postpartum Services defined for costs calculations when all postpartum diagnosis, procedure and revenue codes are included from the first post-delivery discharge date through 56 days after the delivery.

Prenatal Services: Identified using diagnosis, procedure and revenue codes defined in HEDIS® specifications of prenatal care and that occur between the identified delivery date and 280 days prior to the delivery date.

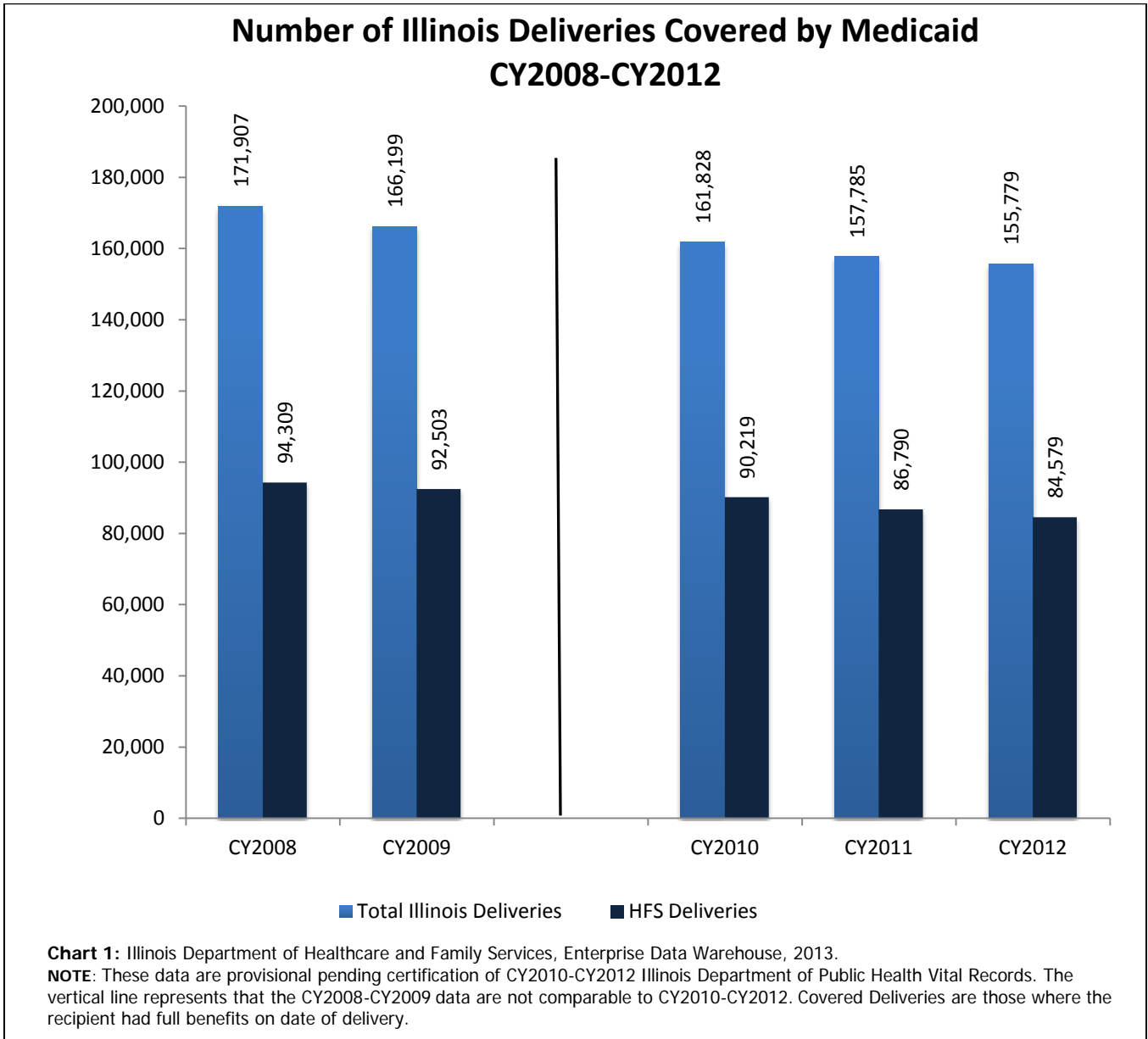
Unknown: A grouping variable inclusive of instances that cannot be included in any other identified category of interest. For this report, "Unknown" is removed from denominator counts and not depicted in the charts. This assures that rates for known categories are not reduced by including "Unknown" in the denominator. The exception is that "Unknown" is included in cost calculations to assure that all costs are depicted.

Very Low Birth Weight: Identified when birth weight is between one and 1,500 grams. See also the "Birth Outcome" note, above.

Vital Records: Birth and Death File data collected by the DPH. These data are matched to HFS claims data using a deterministic and probabilistic matching algorithm based on various fields such as first name, last name, date of birth and social security number. Data are provisional

since CY2010 to CY2012 Birth and Death Files are not certified by DPH. Additionally, differences may exist between data reported for CY2009 and years prior, and CY2010 and subsequent years because a new Vital Records system that became operational in 2010.

Appendix II
Charts and Maps



Percentage of Illinois Deliveries Covered By Medicaid CY2008-CY2012

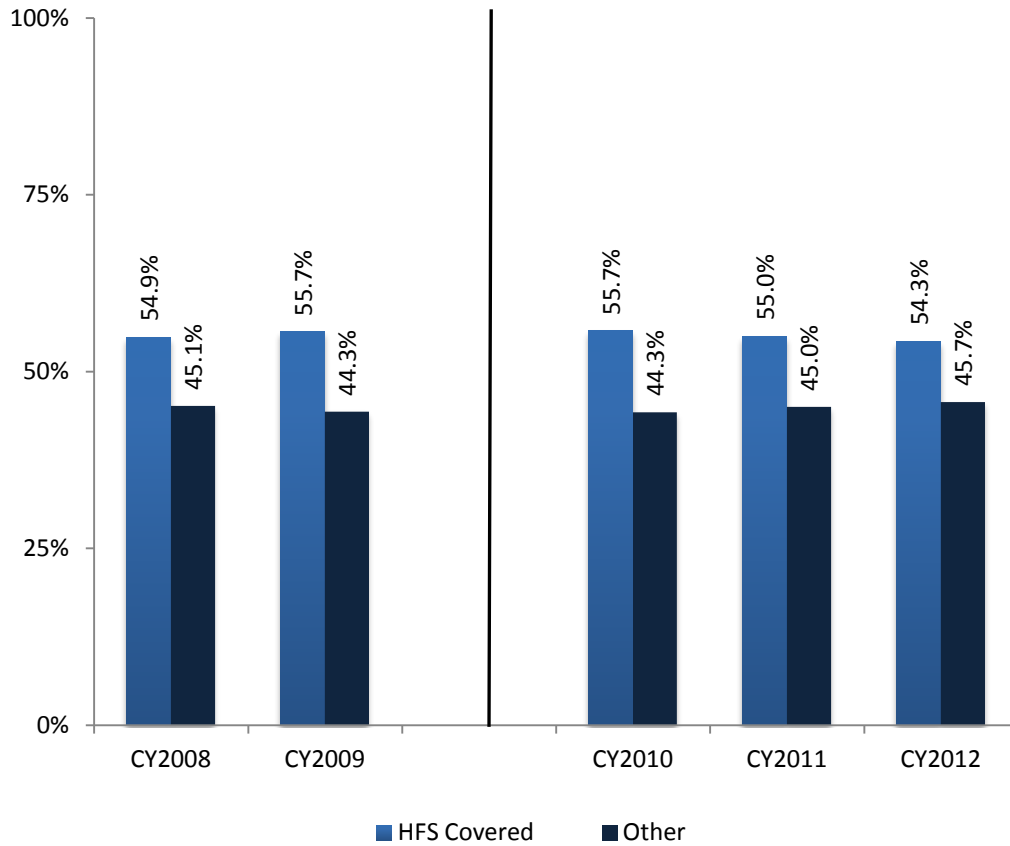


Chart 2: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Covered Deliveries are those where the recipient had full benefits on date of delivery.

Number of Illinois Teen Deliveries Covered by Medicaid CY2008-CY2012

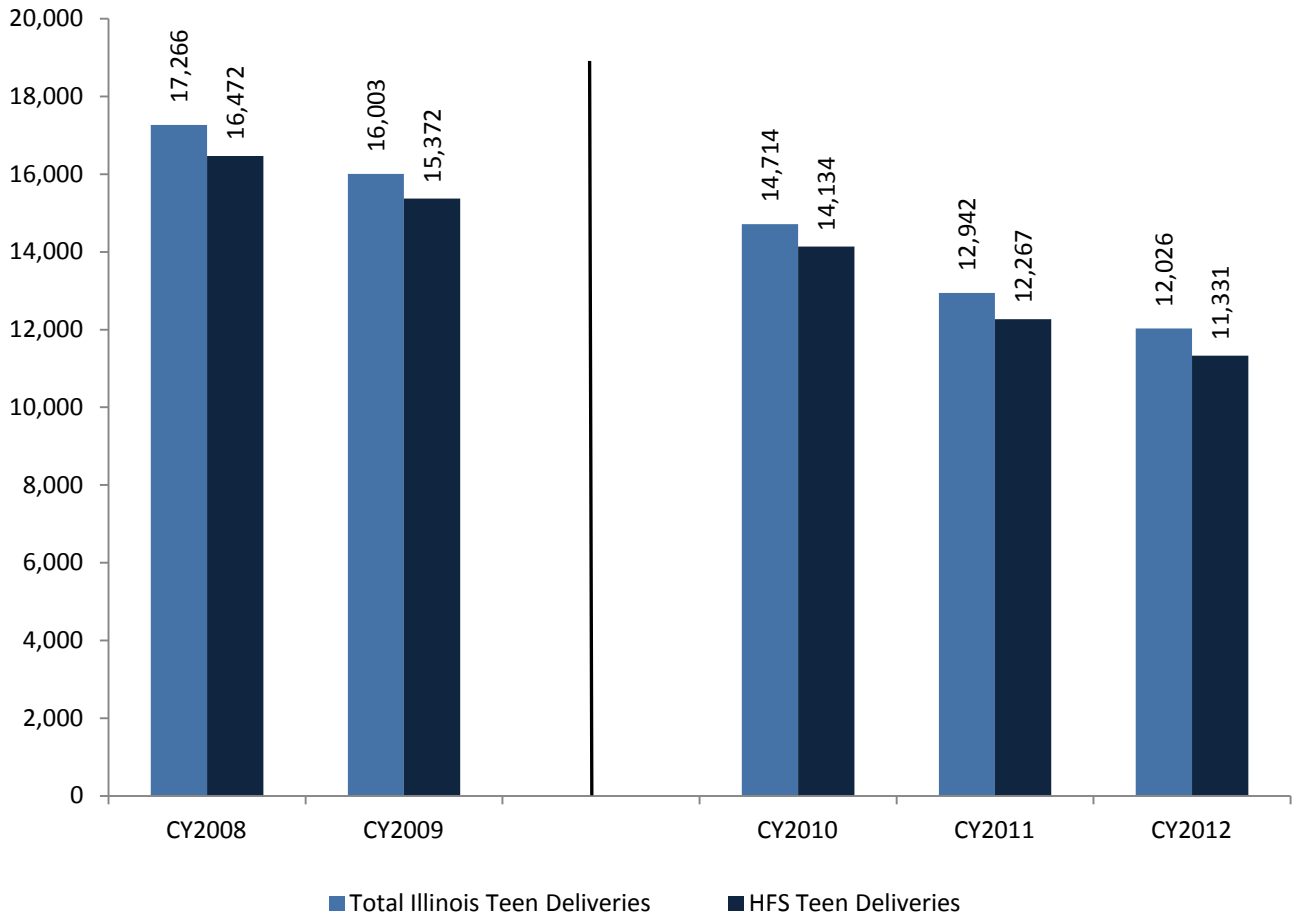


Chart 3: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Covered Deliveries are those where the recipient had full benefits on date of delivery.

Percentage of Teen Deliveries Covered by Medicaid CY2008-CY2012

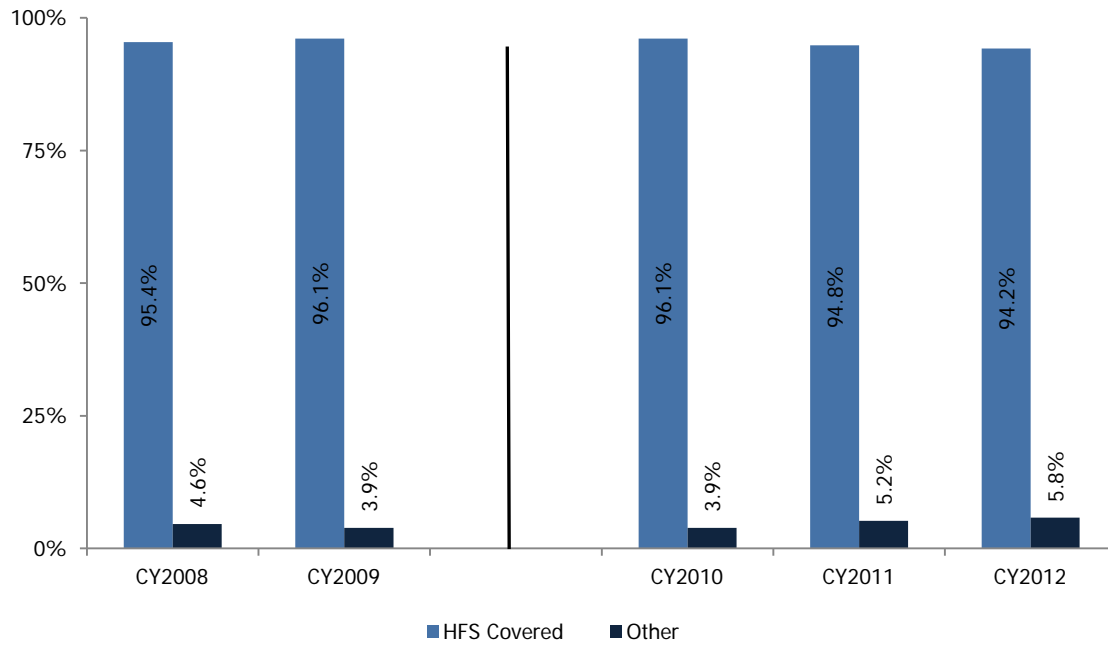


Chart 4: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Covered Deliveries are those where the recipient had full benefits on date of delivery.

Unintended Pregnancy Illinois PRAMS 2009

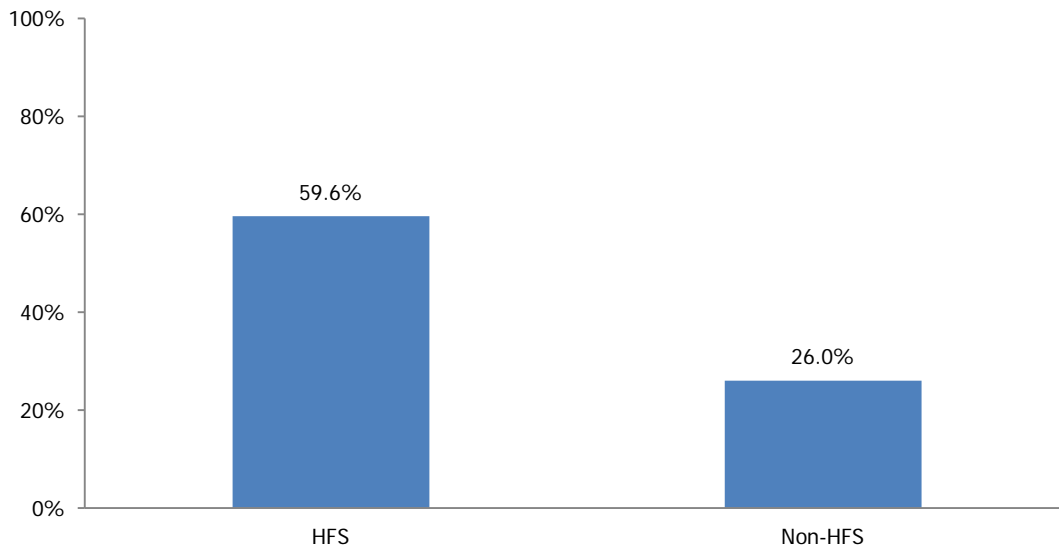


Chart 5: Illinois Department of Public Health, 2009 Pregnancy Risk Assessment Monitoring System (PRAMS)

Medicaid Births By Birth Order CY2008-CY2012

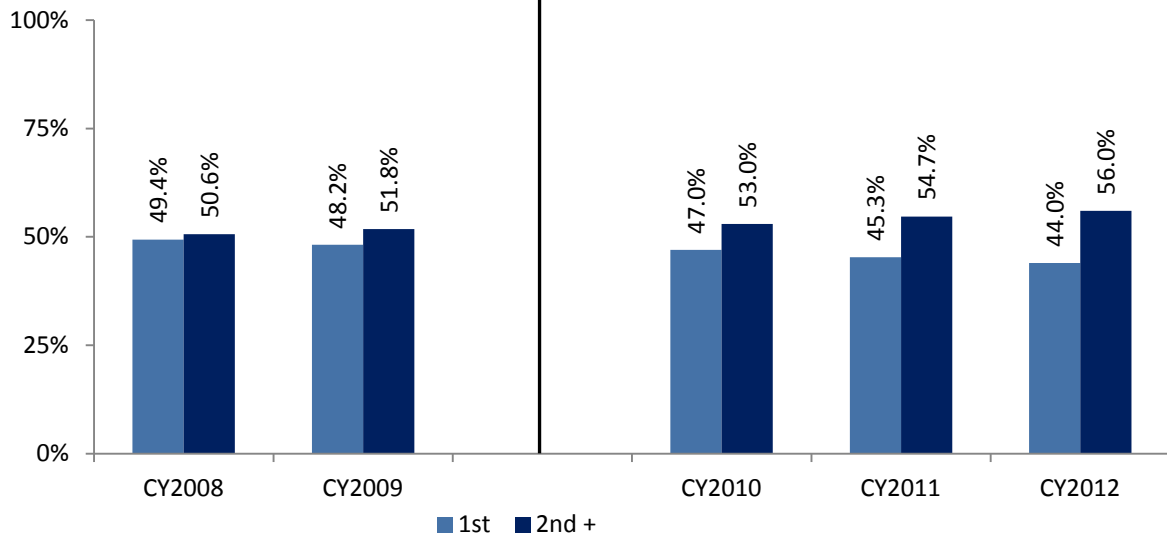


Chart 6: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012.

Subsequent Births by Interval in Months CY2008-CY2012

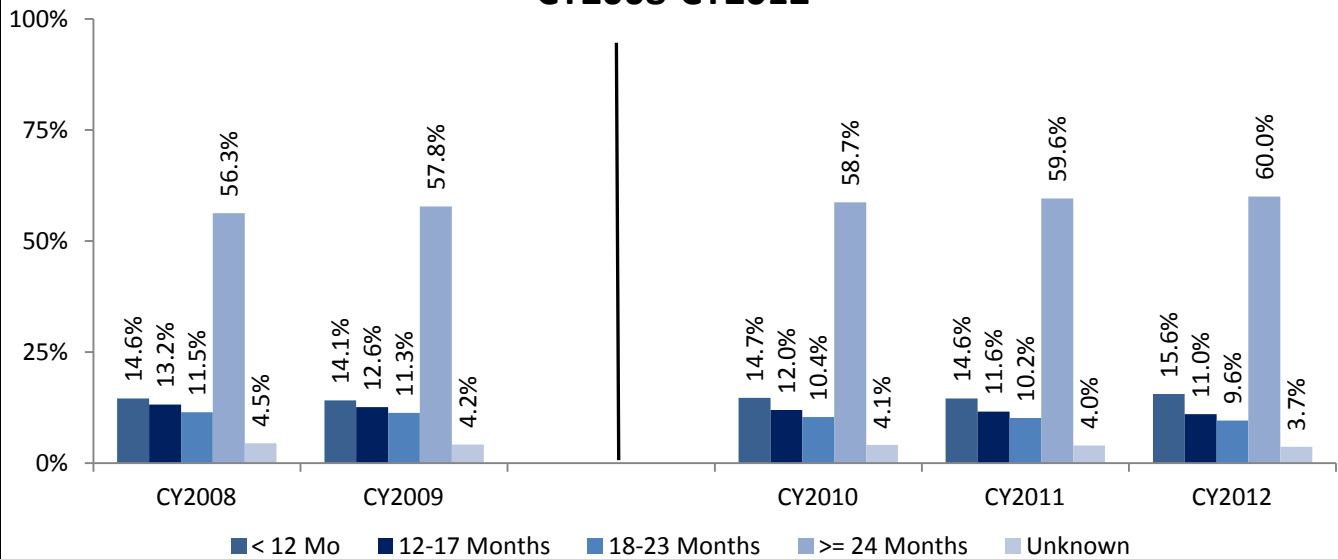


Chart 7: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012.

Medicaid Vaginal vs Cesarean Deliveries CY2008-CY2012

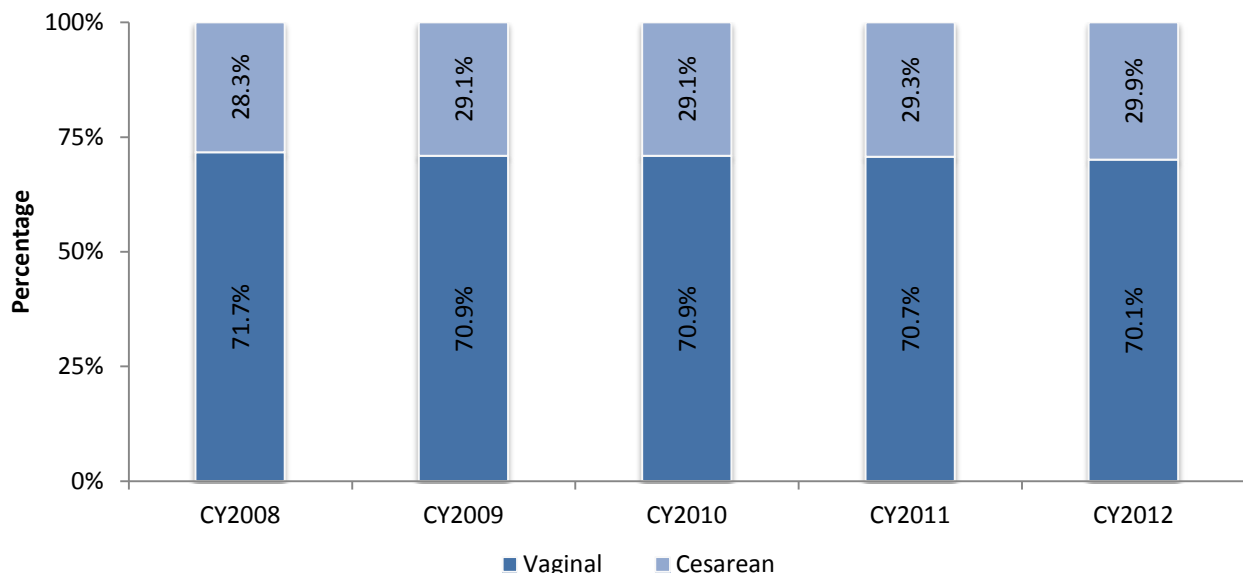


Chart 8: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013. Denominator excludes unknown delivery type.

Cesarean Rate for Nulliparous Singleton Vertex CY2008-CY2012

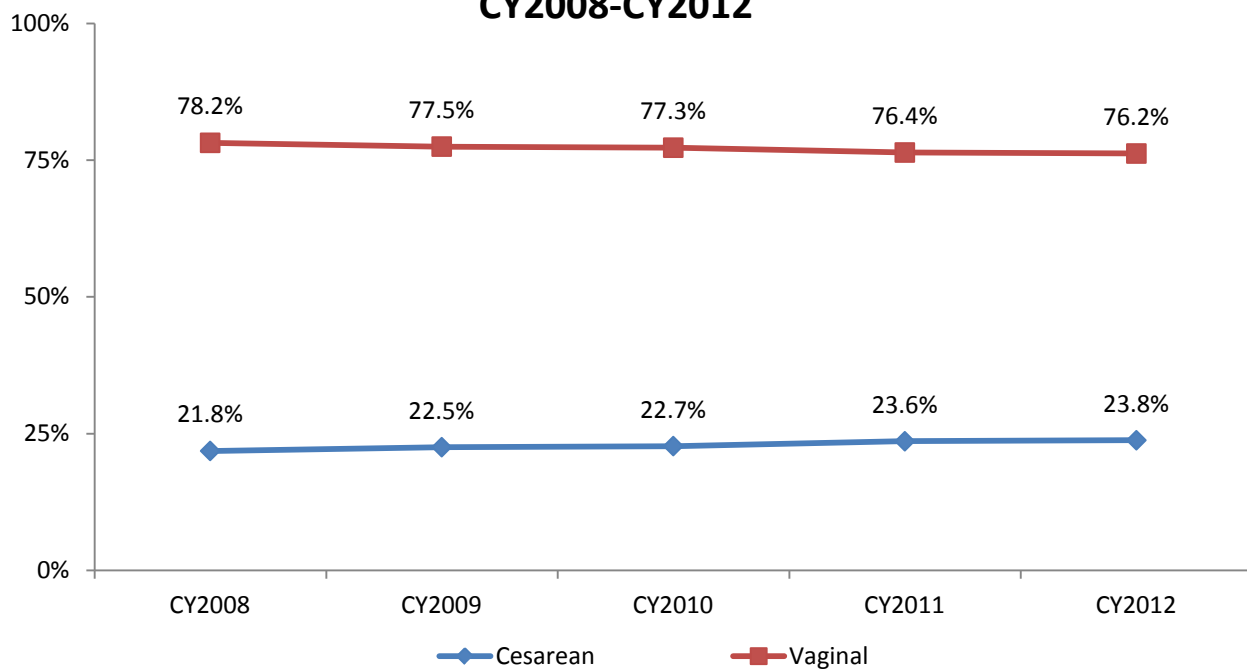


Chart 9: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.
NOTE: These data are provisional pending testing of HEDIS® measure programming. Denominator excludes unknown delivery type.

Medicaid Births by Birth Outcome CY2008-CY2012

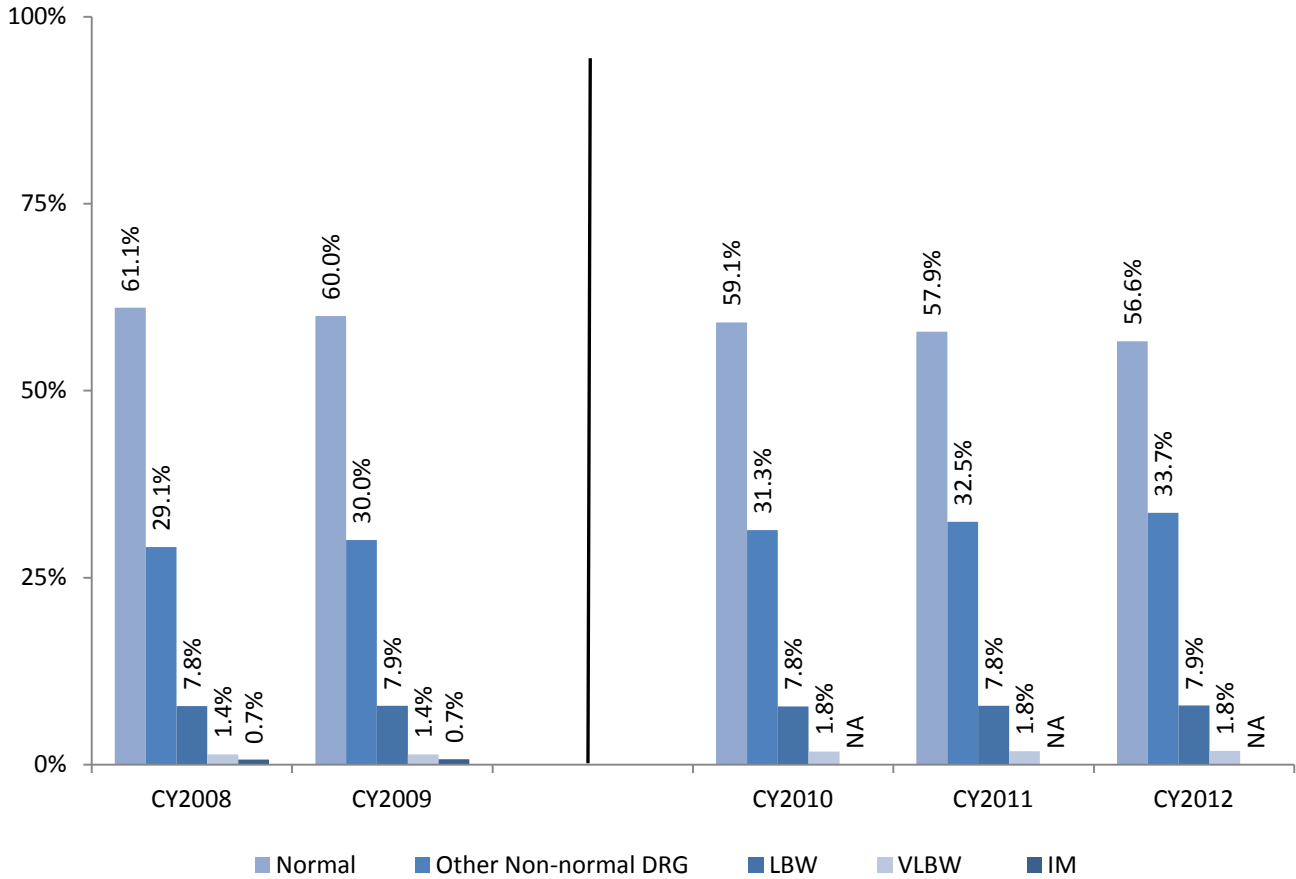


Chart 10: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Infant mortality (IM) data are not available for CY2010-CY2012. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

Very Low Birth Weight Rate: All Races CY2008-CY2012

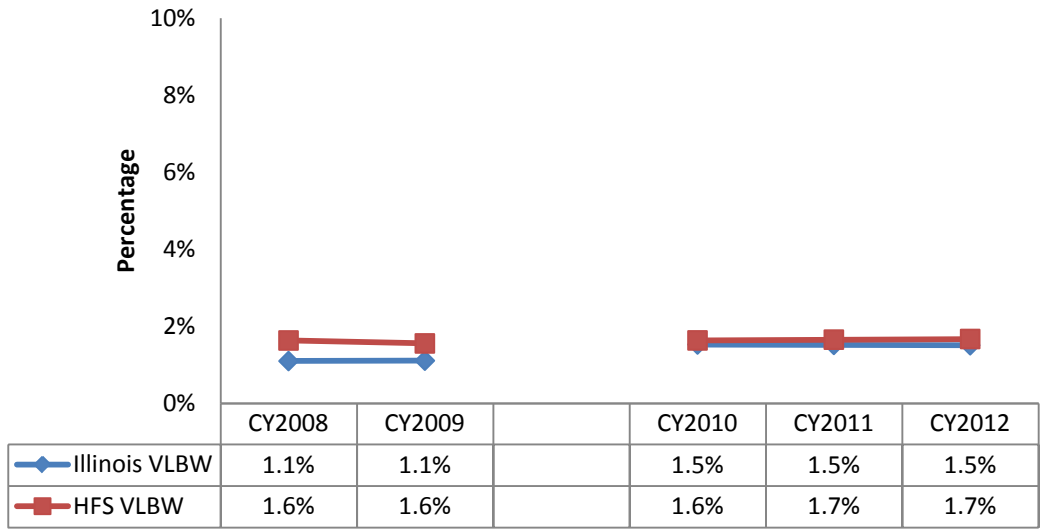


Chart 11: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.
NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The gap represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Denominator excludes unknown birth weights.

Low Birth Weight Rate: All Races CY2008-CY2012

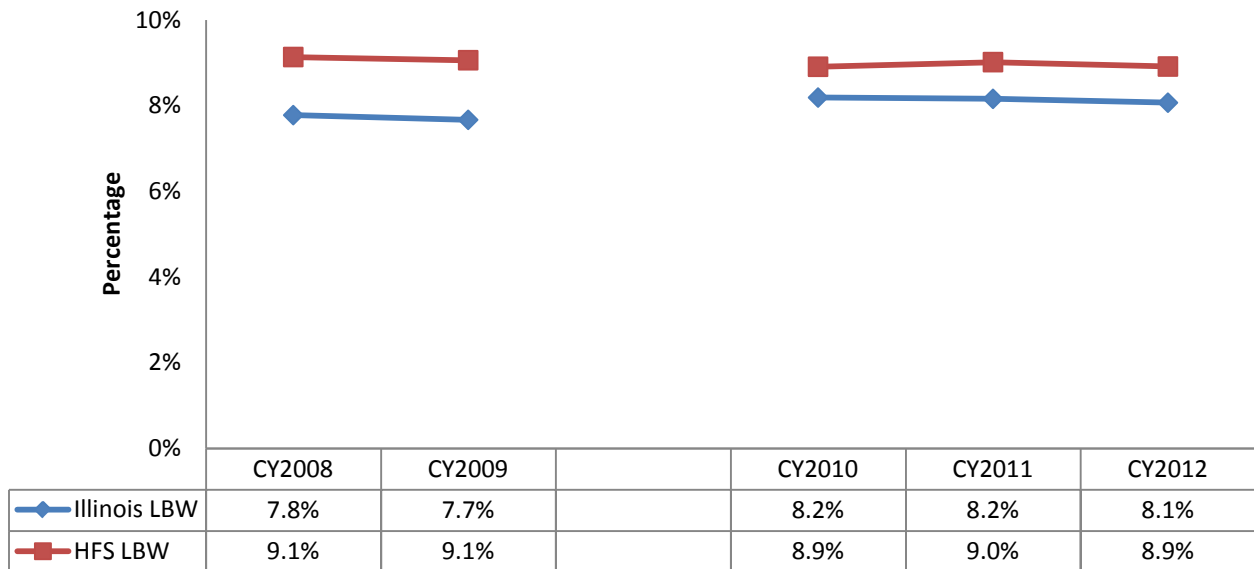


Chart 12: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.
NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. LBW is inclusive of VLBW. The gap represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Denominator excludes unknown birth weights.

Medicaid Infant Mortality Rate CY2008-CY2009

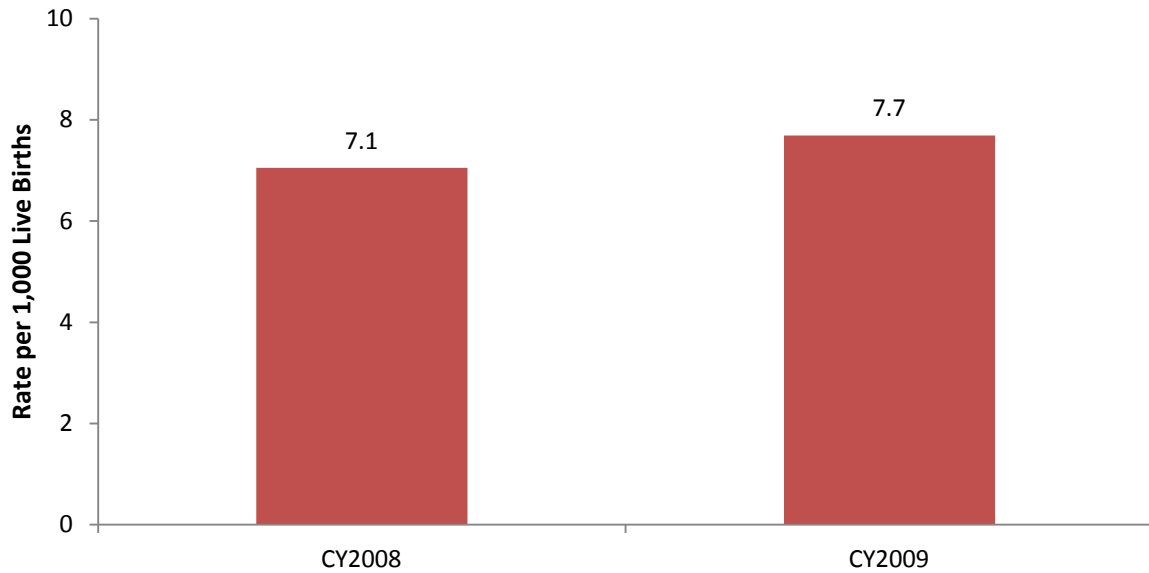


Chart 14 : Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. IM identified if Mom has eligibility or infant has eligibility and does not rely on the identification of a Mom/baby match.

Medicaid Deliveries at a Level III Facility by Birth Outcome CY2008-CY2012

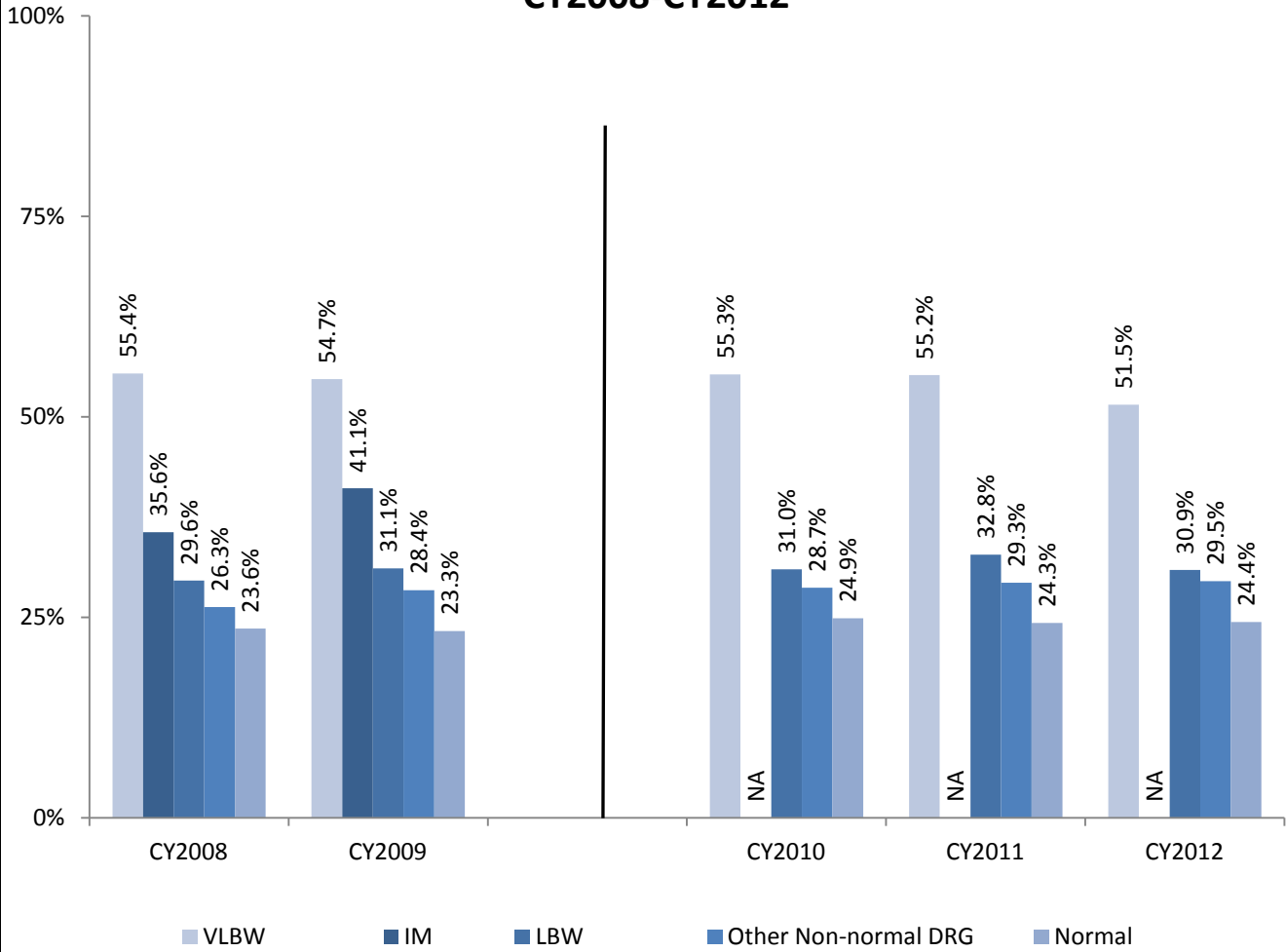


Chart 15: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

Medicaid Cesarean Deliveries at a Level III Facility by Birth Outcome CY2008-CY2012

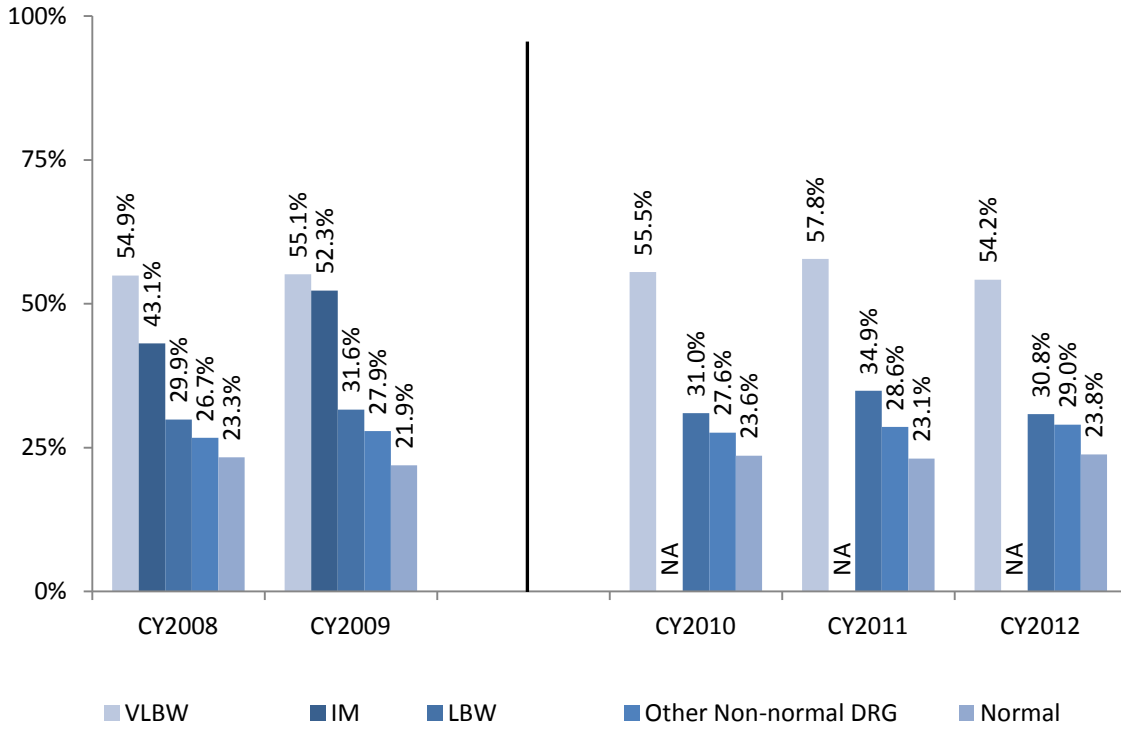


Chart 16: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data not available CY2010-CY2012. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Covered Deliveries are those where the recipient had full benefits on date of delivery. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

Number and Percent of Medicaid Births Served by WIC or FCM CY2008 - CY2012

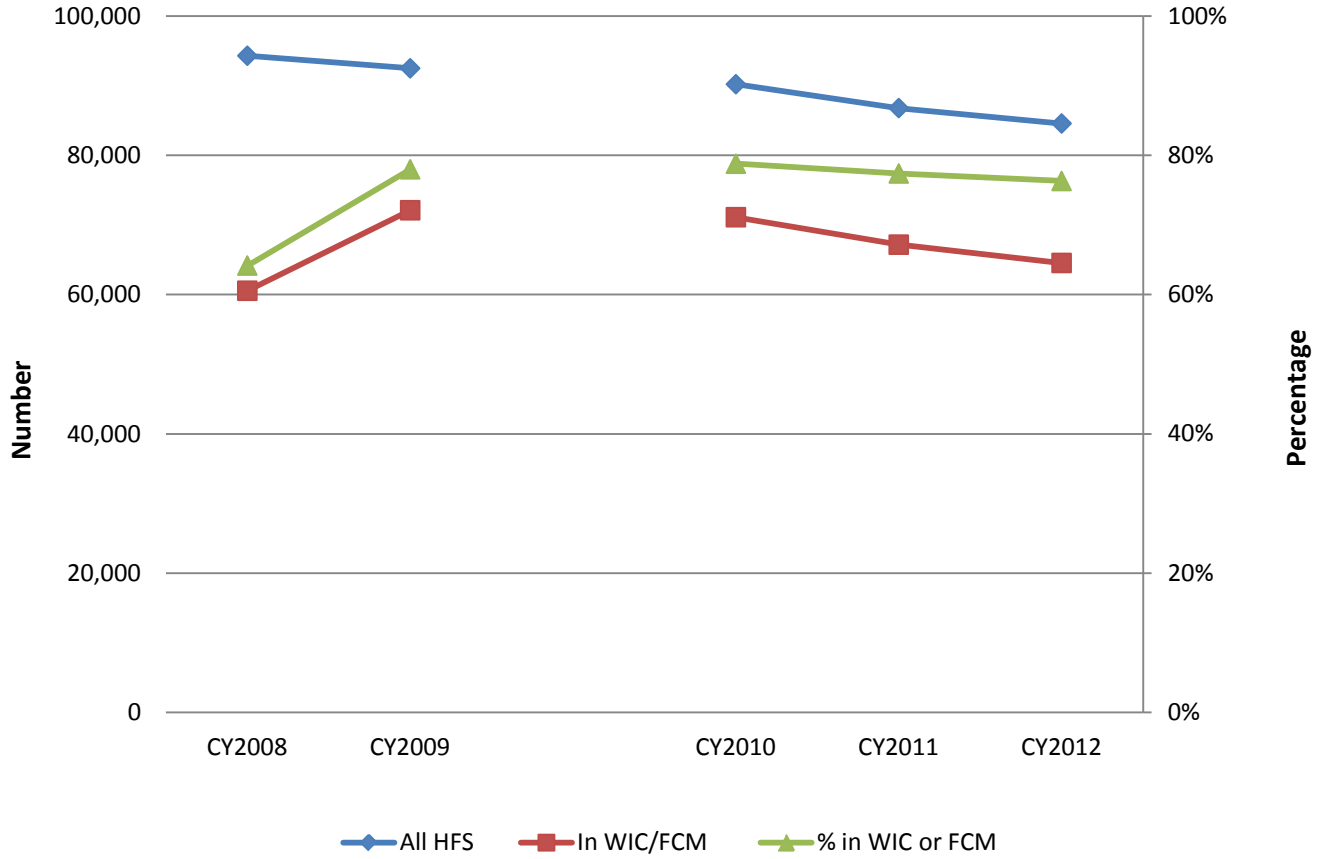


Chart 17: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. The gap represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012.

Frequency of Ongoing Prenatal Care CY2010 - CY2012

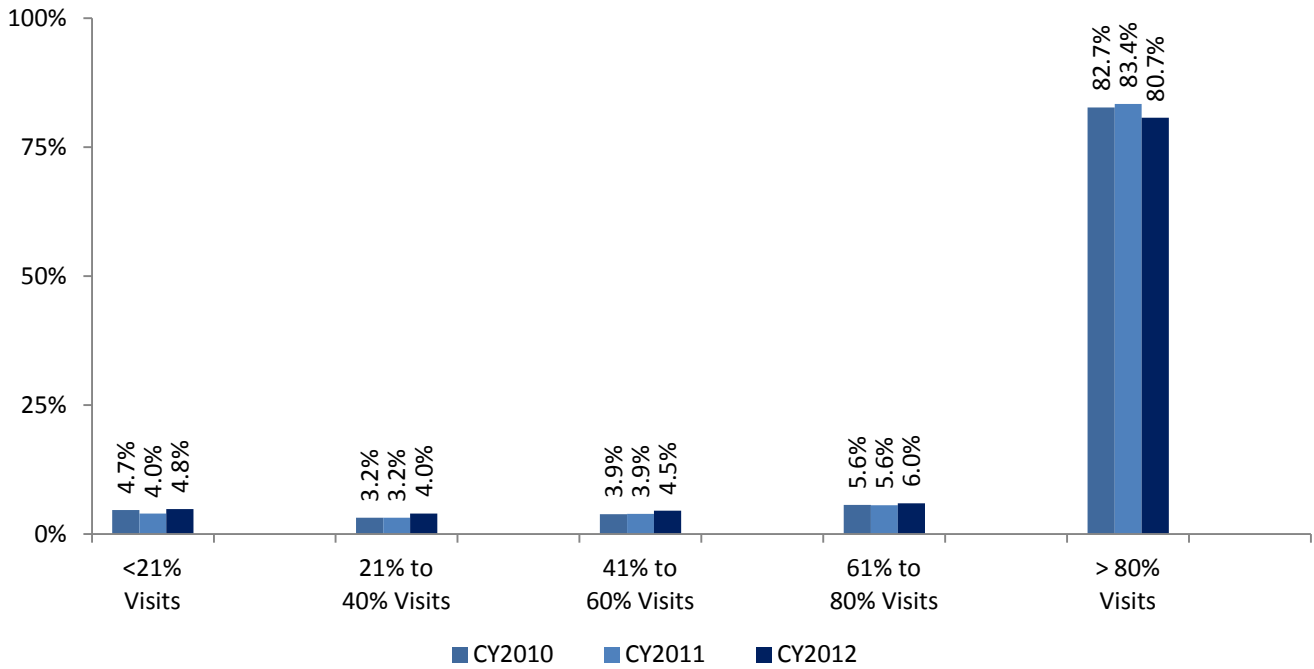


Chart 18: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.
NOTE: These data are provisional pending testing of HEDIS® measure programming. More than 80 percent of visits is considered adequate prenatal care.

Timeliness of Prenatal Care CY2010 - CY2012 Percentage of Pregnant Women Receiving Timely Prenatal Care (Visit in the First Trimester or within 42 Days of Enrollment)

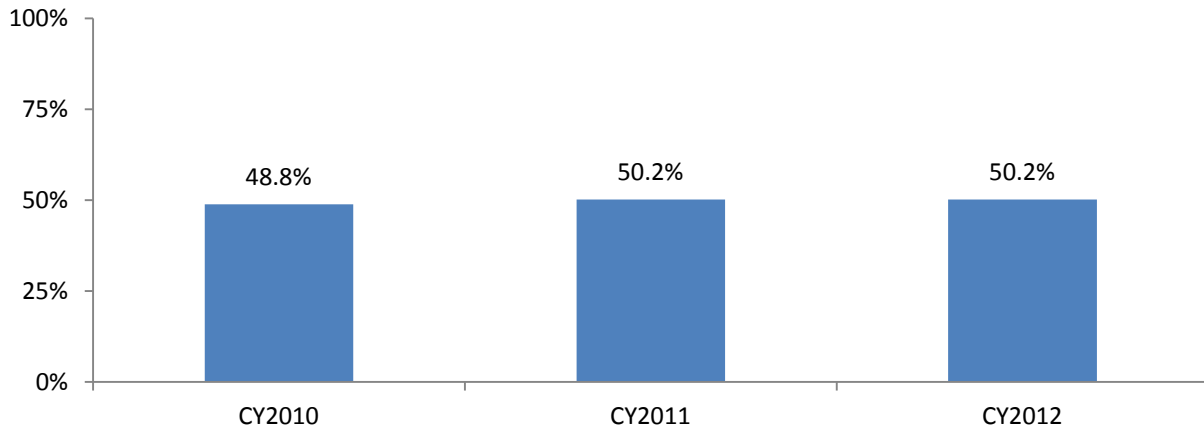


Chart 19: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.
NOTE: These data are provisional pending testing of HEDIS® measure programming.

Medicaid Prenatal Services at a Level III Facility by Birth Outcome CY2008-CY2012

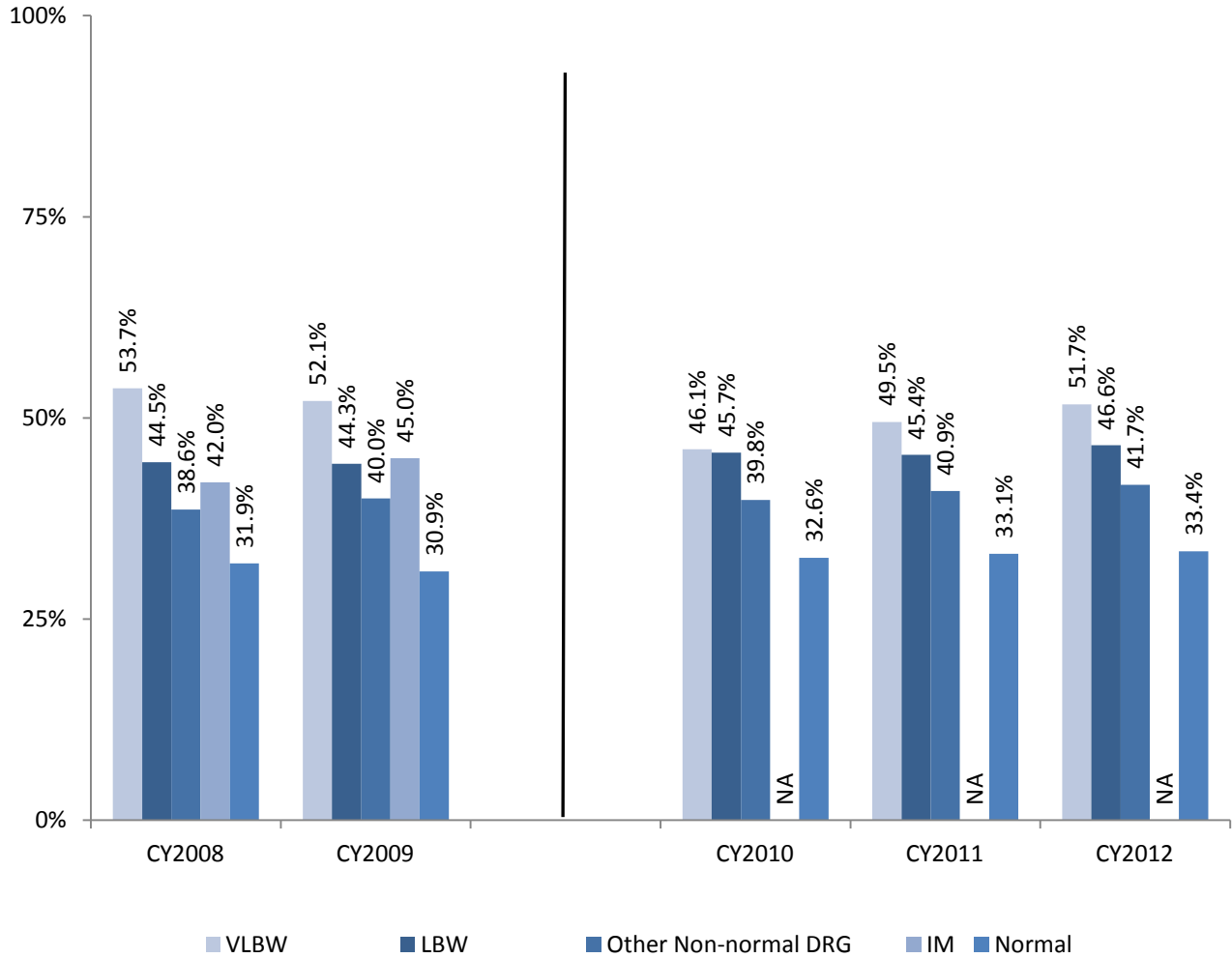


Chart 20: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

Timeliness of Postpartum Care CY2010 - CY2012
Percentage of Women Receiving a Postpartum Care Visit on or Between Three Weeks and Eight Weeks after Delivery

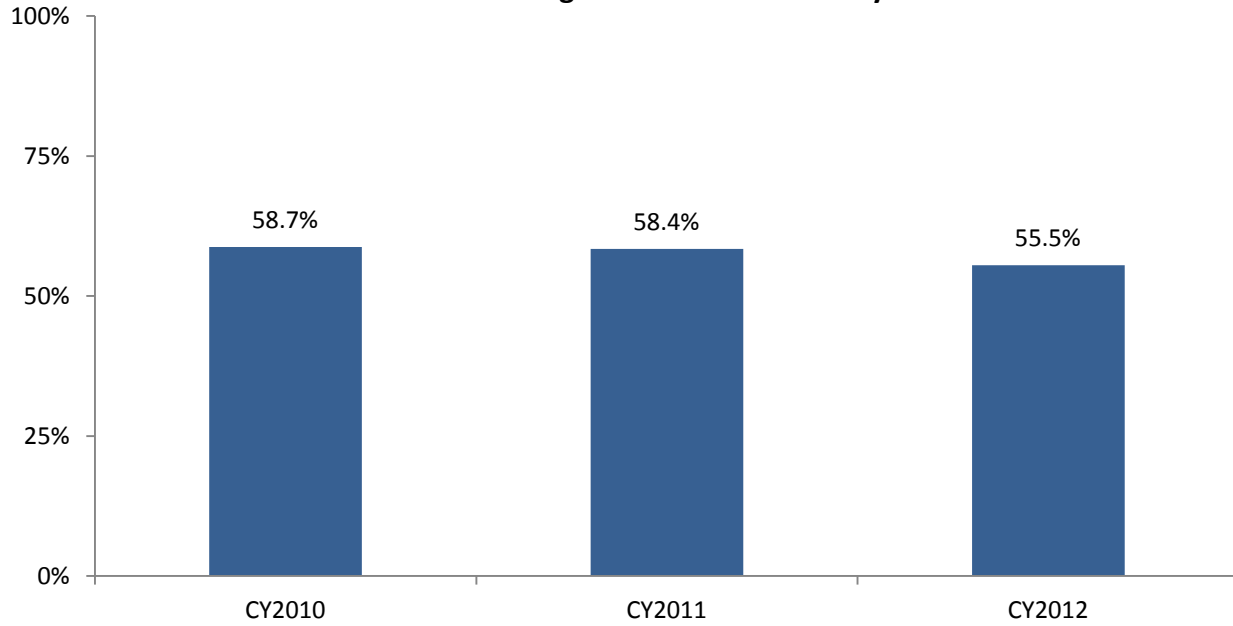


Chart 21: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.
NOTE: These data are provisional pending testing of HEDIS® measure programming.

Physical Abuse: Illinois PRAMS 2009

Abuse by Husband/Partner Before Pregnancy		Percentage
Illinois		2.80%
HFS Women		4.60%
Non-HFS Women		0.80%
Abuse by Husband/Partner During Pregnancy		Percentage
Illinois		2.10%
HFS Women		3.60%
Non-HFS Women		0.00%

2009 PRAMS did not include questions about abuse by "ex-" husband/partner

Chart 22: Illinois Department of Public Health, 2009 Pregnancy Risk Assessment Monitoring System (PRAMS)

Prevalence of Drinking Before and During Pregnancy:

Women who drank 3 months before pregnancy		Percentage
Illinois		53.30%
HFS Women		40.90%
Non-HFS Women		67.80%
Women who drank during last 3 months of pregnancy		Percentage
Illinois		6.80%
HFS Women		4.40%
Non-HFS Women		9.60%

Chart 23: Illinois Department of Public Health, 2009 Pregnancy Risk Assessment Monitoring System (PRAMS)

Prevalence of Smoking Before and During Pregnancy:

Women who smoked 3 months before pregnancy		Percentage
Illinois		20.90%
HFS Women		25.50%
Non-HFS Women		15.60%
Women who smoked during last 3 months of pregnancy		Percentage
Illinois		9.20%
HFS Women		12.50%
Non-HFS Women		5.30%

Chart 24: Illinois Department of Public Health, 2009 Pregnancy Risk Assessment Monitoring System (PRAMS)

Illinois Tobacco Quitline Calls for SFY2011-SFY2012

Description	SFY2011	SFY2012
Total Callers	19659	24575
Self-reported as being pregnant	184	285
Self-reported as receiving WIC	292	307
Call attributable to HFS mailing	604	418
Female callers	12451	15130
Children in household under age 5	N/A	1896

Chart 25: Illinois Department of Public Health, Tobacco Control Program

Postpartum Depression Diagnosis: Illinois PRAMS 2009

Women with a postpartum depression diagnosis	Percentage
Illinois	9.1%
HFS Women	11.2%
Non-HFS Women	6.6%

Chart 26: Illinois Department of Public Health, 2009 Pregnancy Risk Assessment Monitoring System (PRAMS)

Perinatal Depression Screenings CY2008-CY2012 Percent of Peripartum Women Receiving Perinatal Depression Screenings

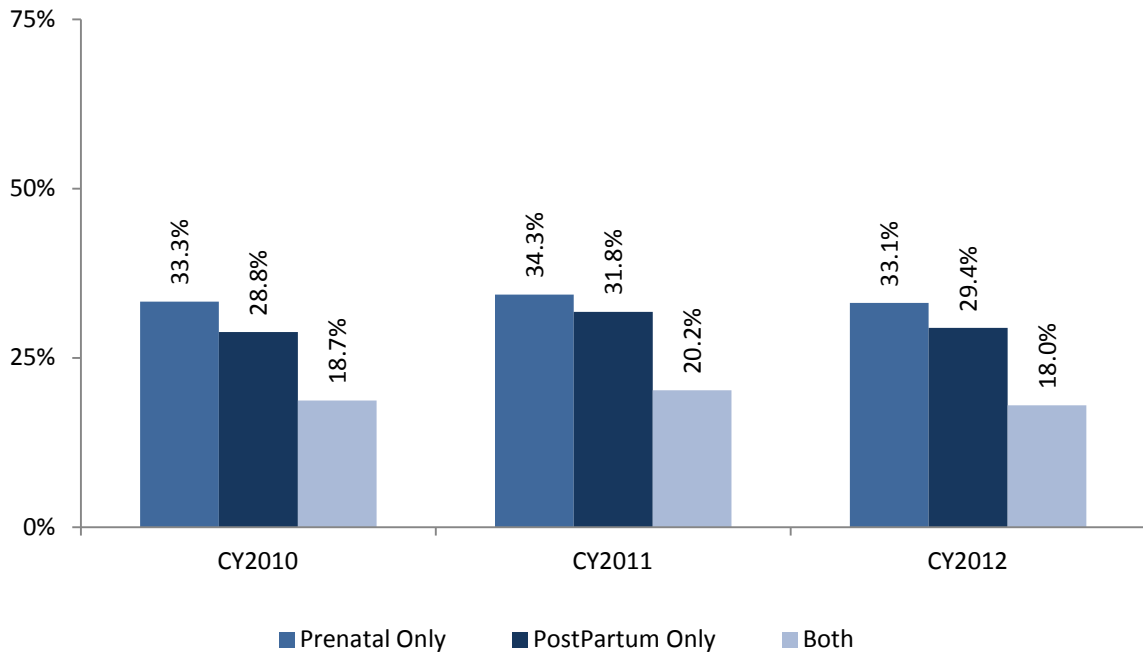


Chart 27: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

Chlamydia Screening CY2010 - CY2012 among Females 16-20 Years of Age

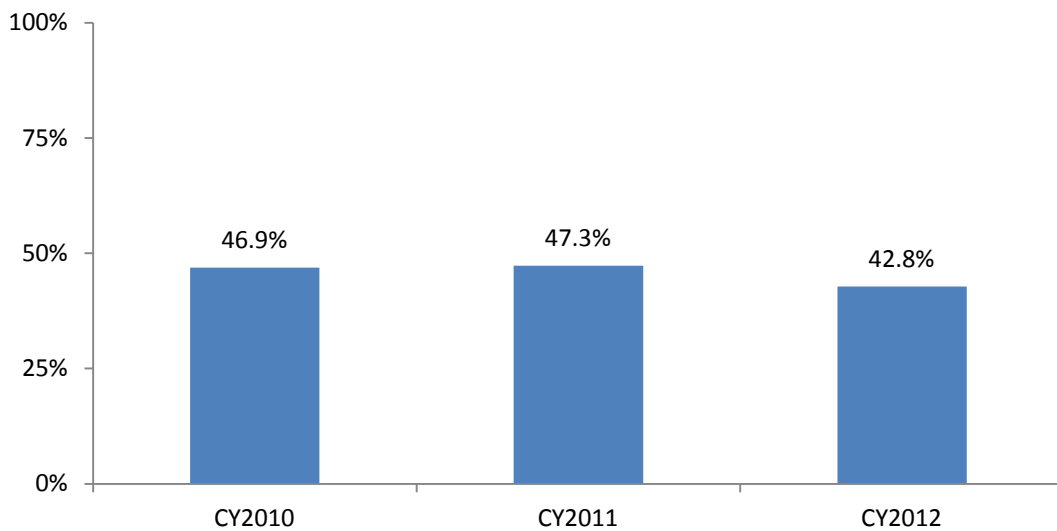


Chart 28: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013. Measure based on HEDIS® specifications.

Odds Ratio of Adverse Birth Outcome for HFS Women with a Previous Birth Based on Select Risk Factors - CY2011 Births

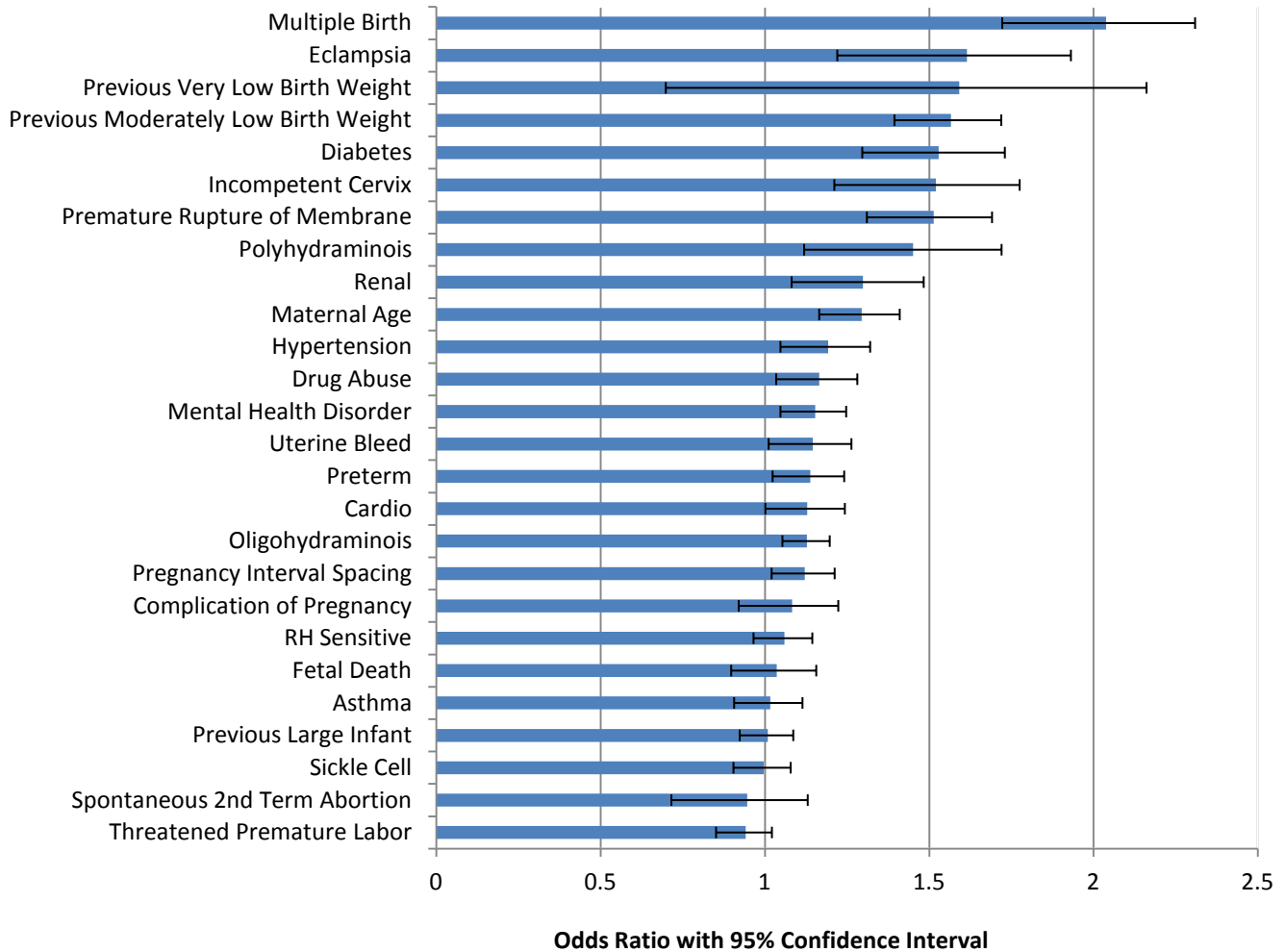


Chart 29: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013

Medicaid Births with Family Planning Service within Six Months After Delivery CY2008-CY2012

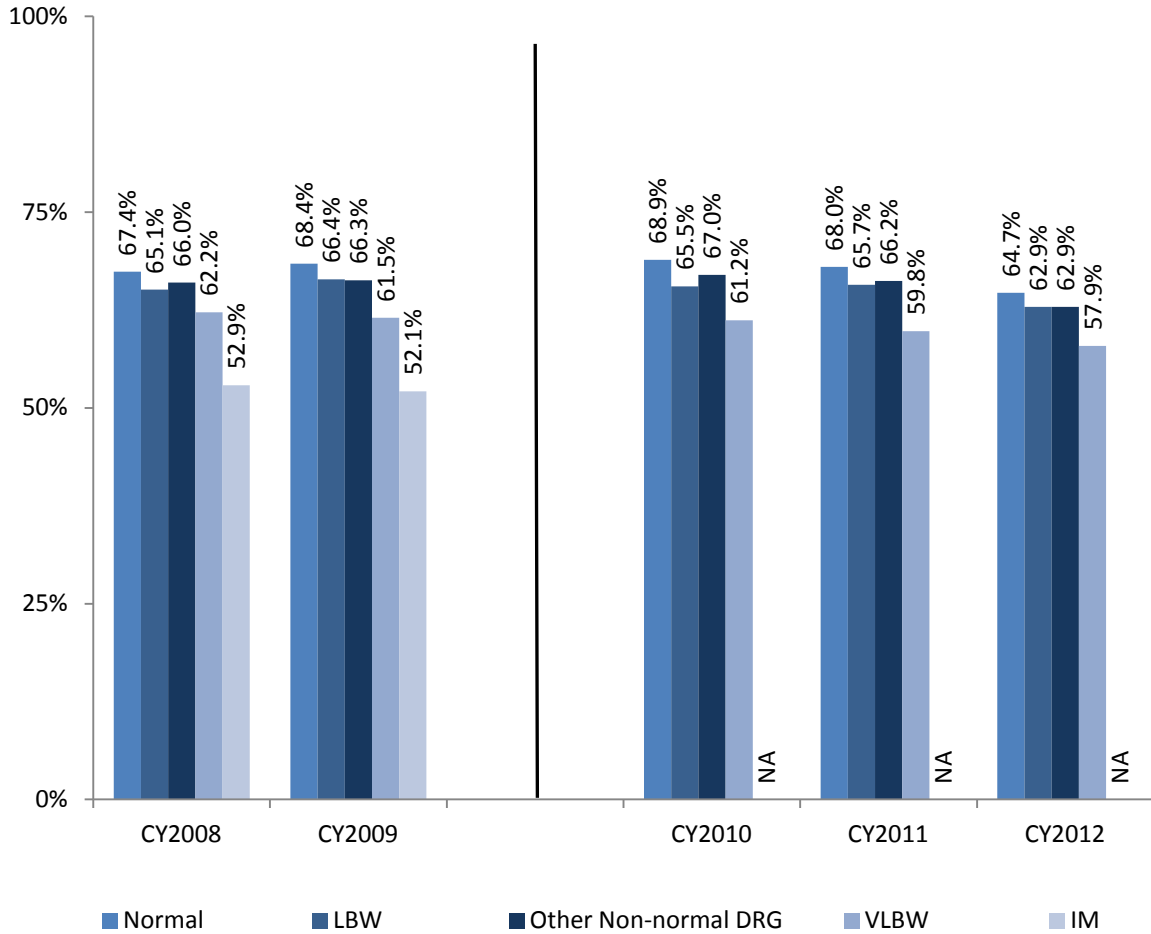


Chart 30: Illinois Department of Healthcare and Family Services, Executive Information System, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data not available for CY2010-CY2012. The vertical line represents that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

Women Enrolled in Medicaid Before and After Delivery All Births CY2008, CY2010 and CY2012

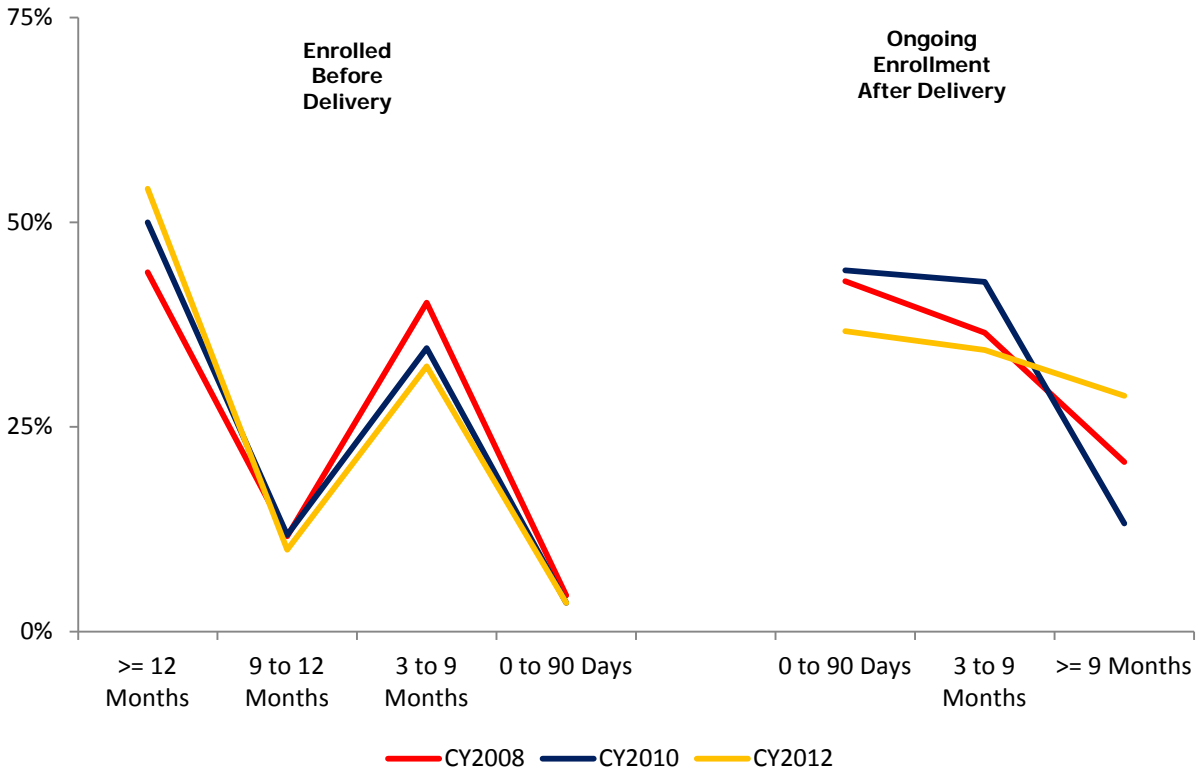


Chart 31: Illinois Department of Healthcare and Family Services, Executive Information System, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Data are among matched Mom/baby pairs.

Women Enrolled in Medicaid Before and After Delivery by Selected Poor Birth Outcomes CY2008, CY2010 and CY2012

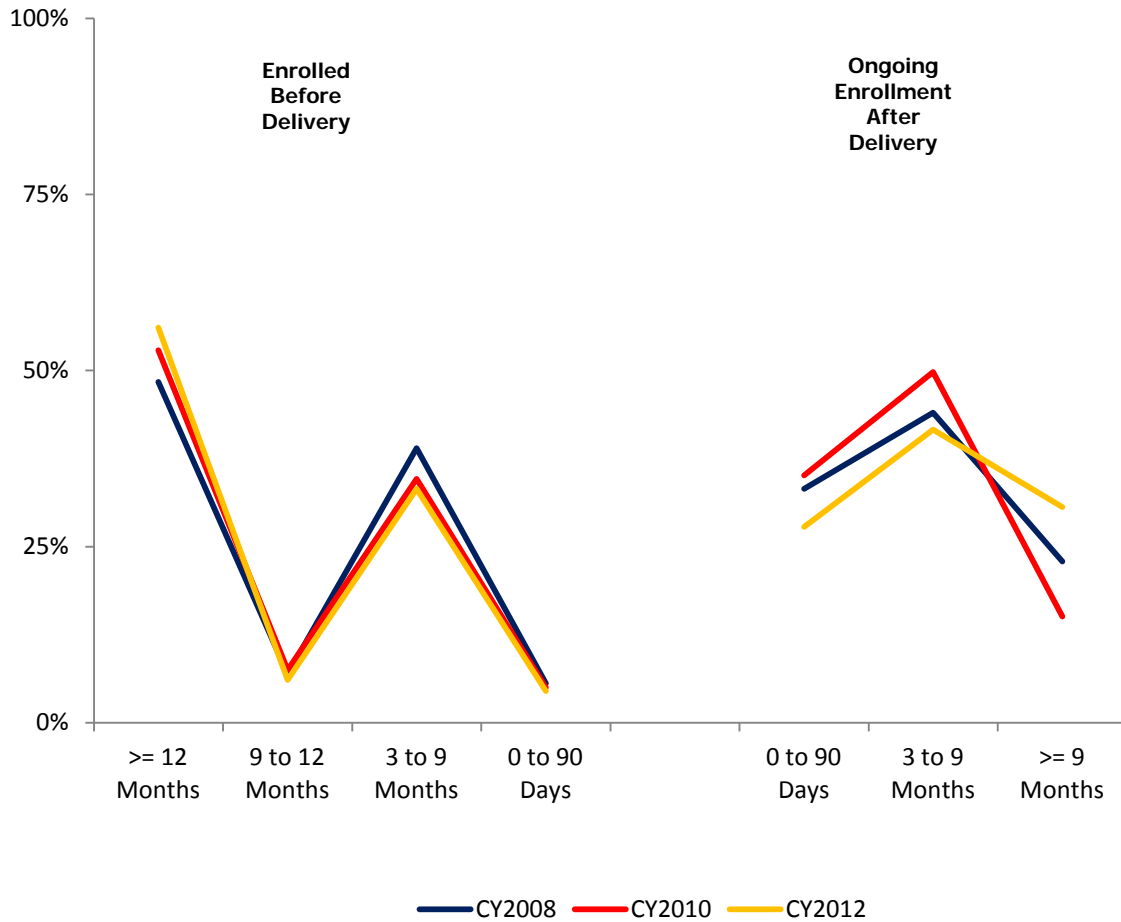


Chart 32: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. Data are among matched Mom/baby pairs. Denominator excludes unknown birth outcome.

Medicaid Birth Costs by Outcome CY2008 - CY2012

Includes Mom's Prenatal, Delivery, and Postpartum Costs; and Baby's 1st Year of Life Costs

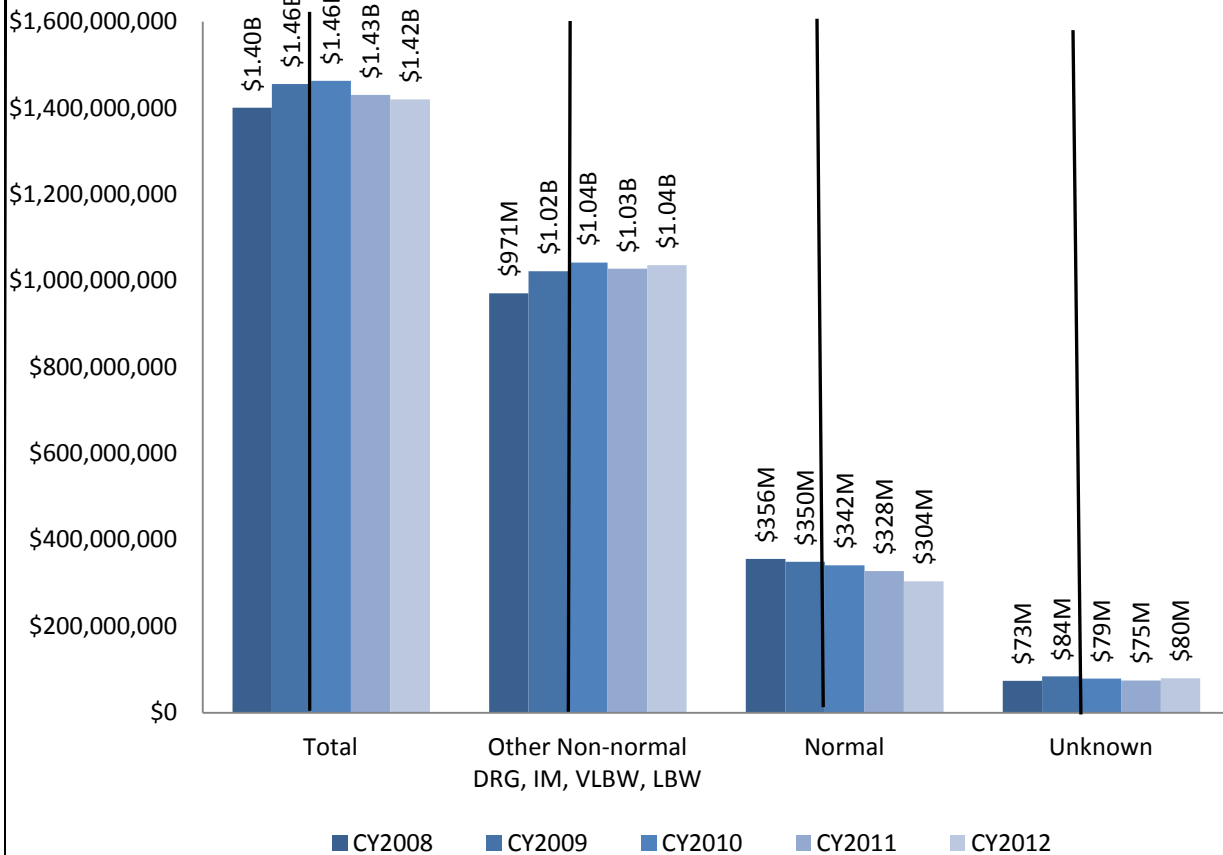


Chart 33: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. Postpartum includes costs from discharge date through day 56 post delivery. The vertical lines represent that the CY2008-CY2009 data are not comparable to CY2010-CY2012. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW.

Medicaid Birth Average Costs by Outcome CY2008 - CY2012

Includes Mom's Prenatal, Delivery, and Postpartum Costs; and Baby's 1st Year of Life Costs

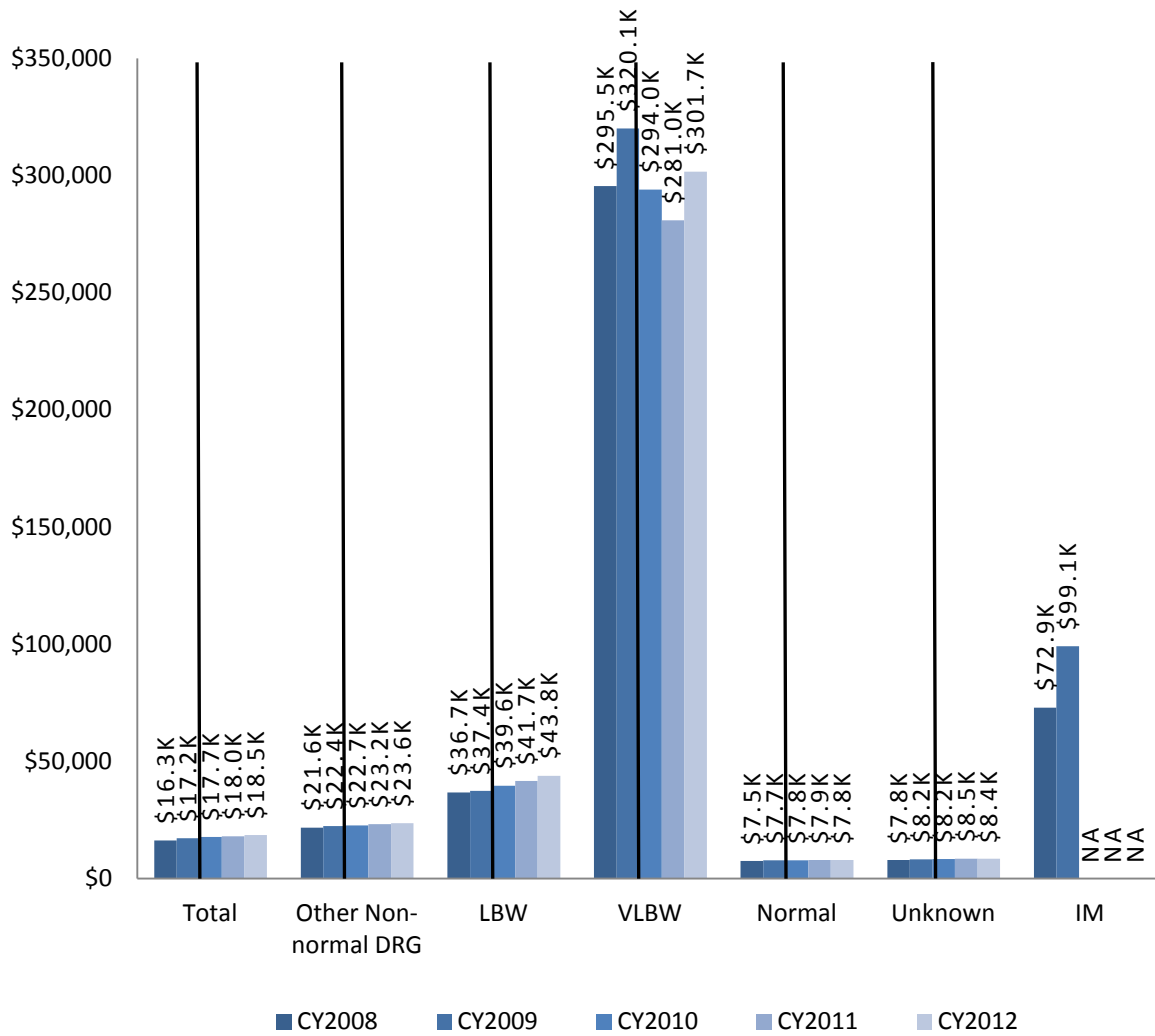


Chart 34: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. Postpartum includes costs from date of delivery through day 56 post-delivery. The vertical lines represent that the CY2008-CY2009 date are not comparable to CY2010-CY2012. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW.

Percentage of Medicaid Births and Costs by Outcome CY2008, CY2010 and CY2012

Includes Mom's Prenatal, Delivery, and Postpartum Costs; and Baby's 1st Year of Life Costs

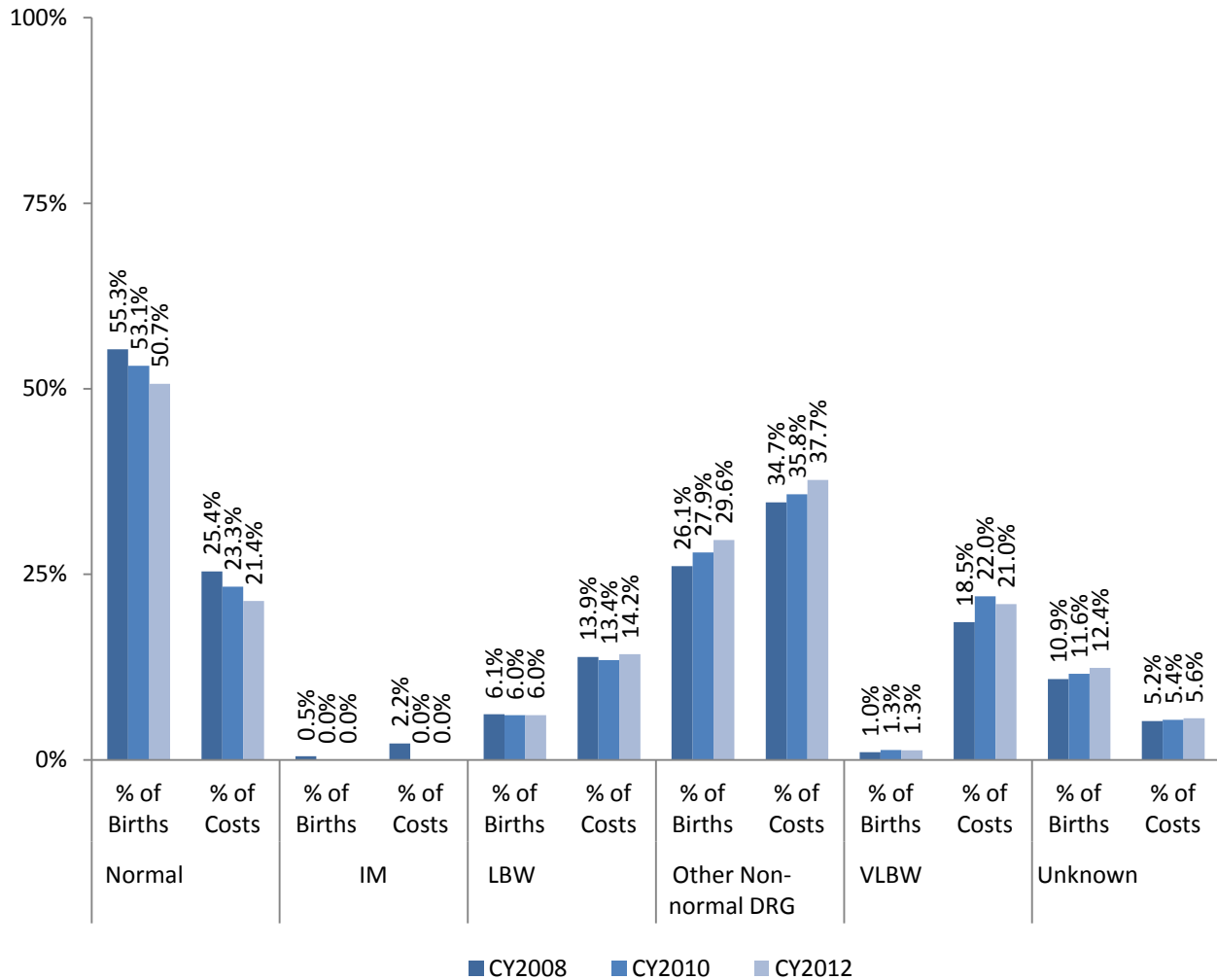
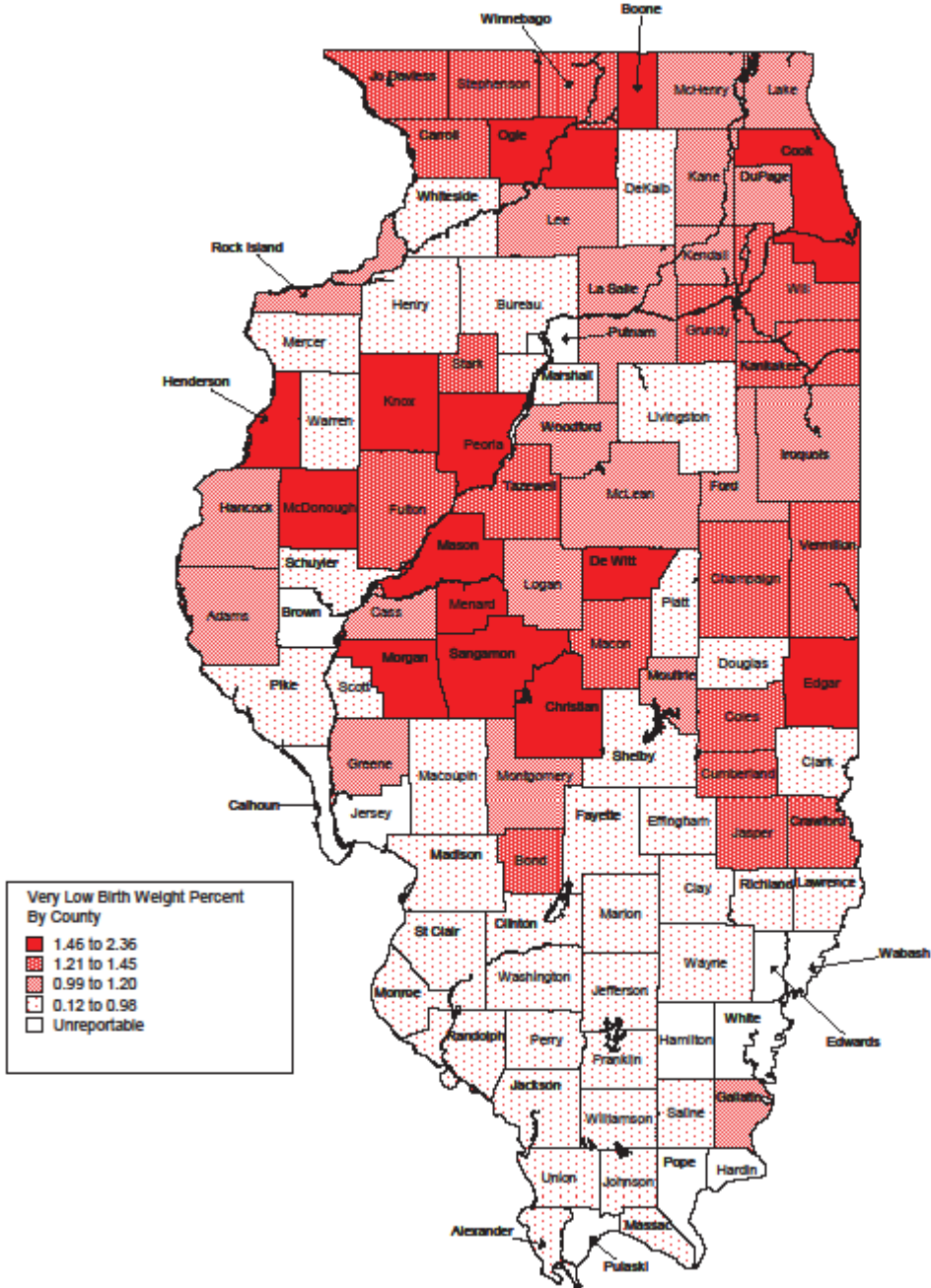


Chart 35: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2013.

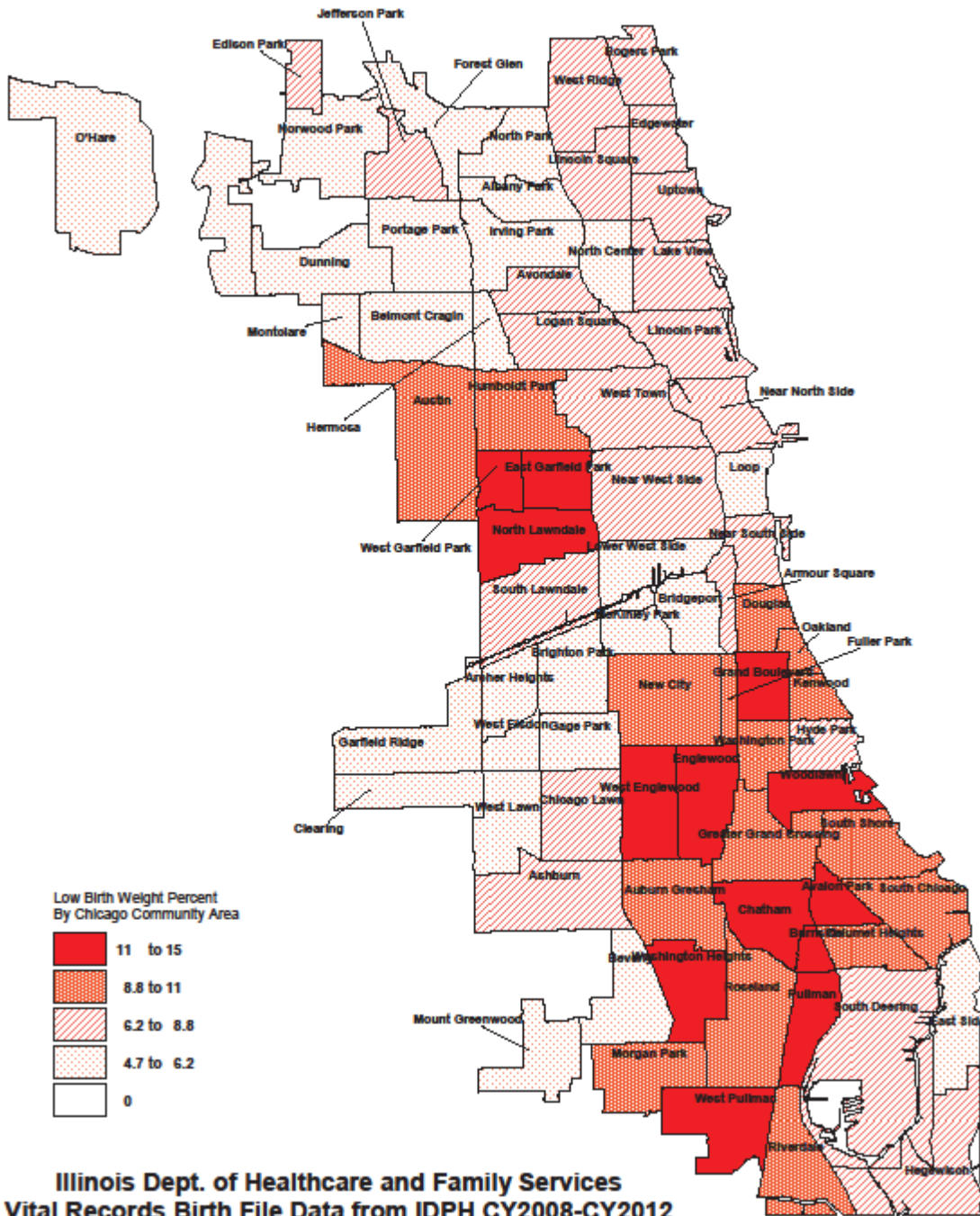
NOTE: These data are provisional pending certification of CY2010-CY2012 Illinois Department of Public Health Vital Records. Infant mortality (IM) data are not available for CY2010-CY2012. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW.

**Very Low Birth Weight Percent by County
Based on Total Illinois Live Births
CY2008-CY2012**



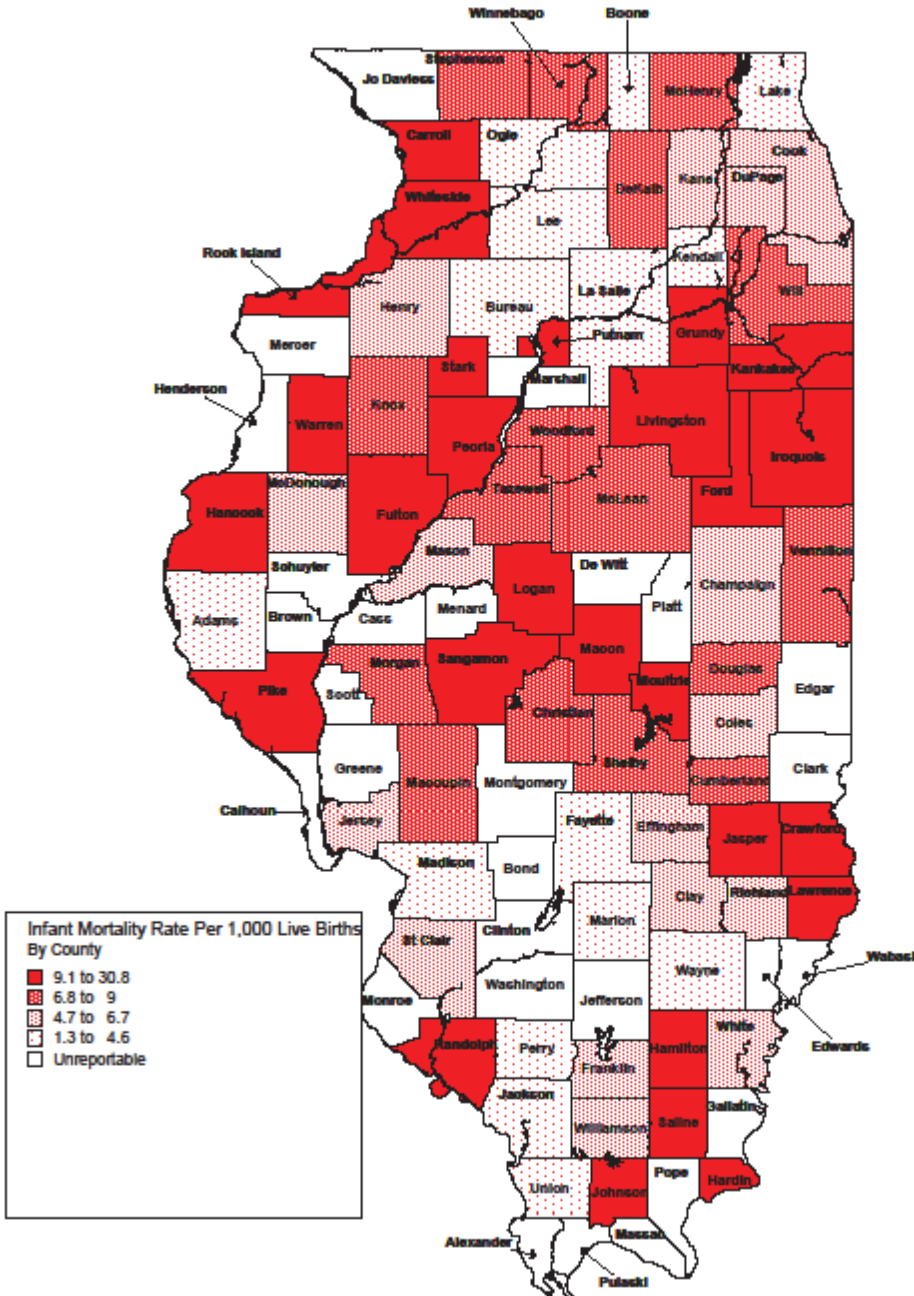
Illinois Dept. of Healthcare and Family Services Vital Records Birth File Data From IDPH CY2008-CY2012
Data are provisional for CY2010-CY2012

**Low Birth Weight Percent by Chicago Community Area
Based on Total Illinois Live Births
CY2008-CY2012**

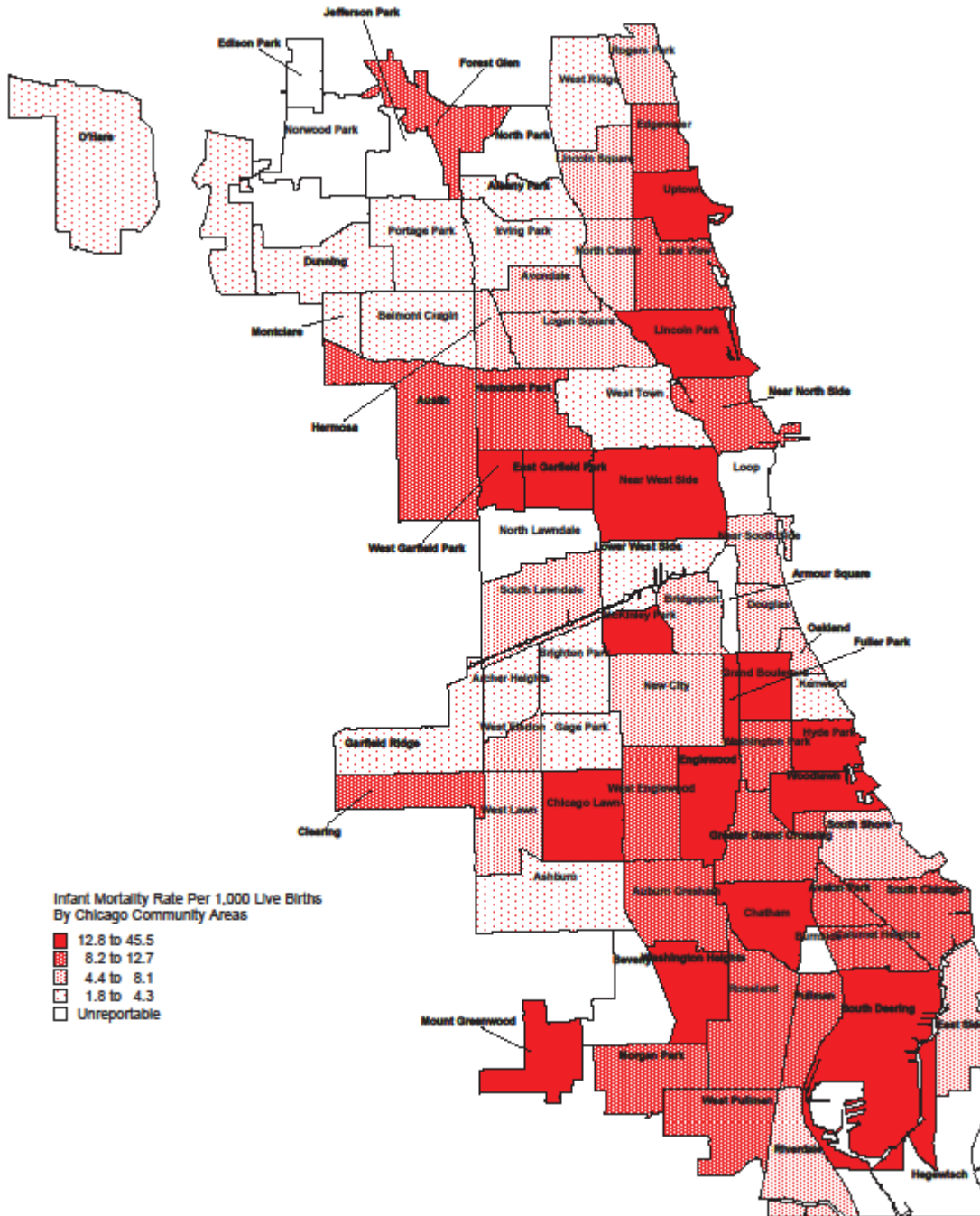


Infant Mortality Rate per 1,000 HFS Covered Live Births By County

CY2008-CY2009

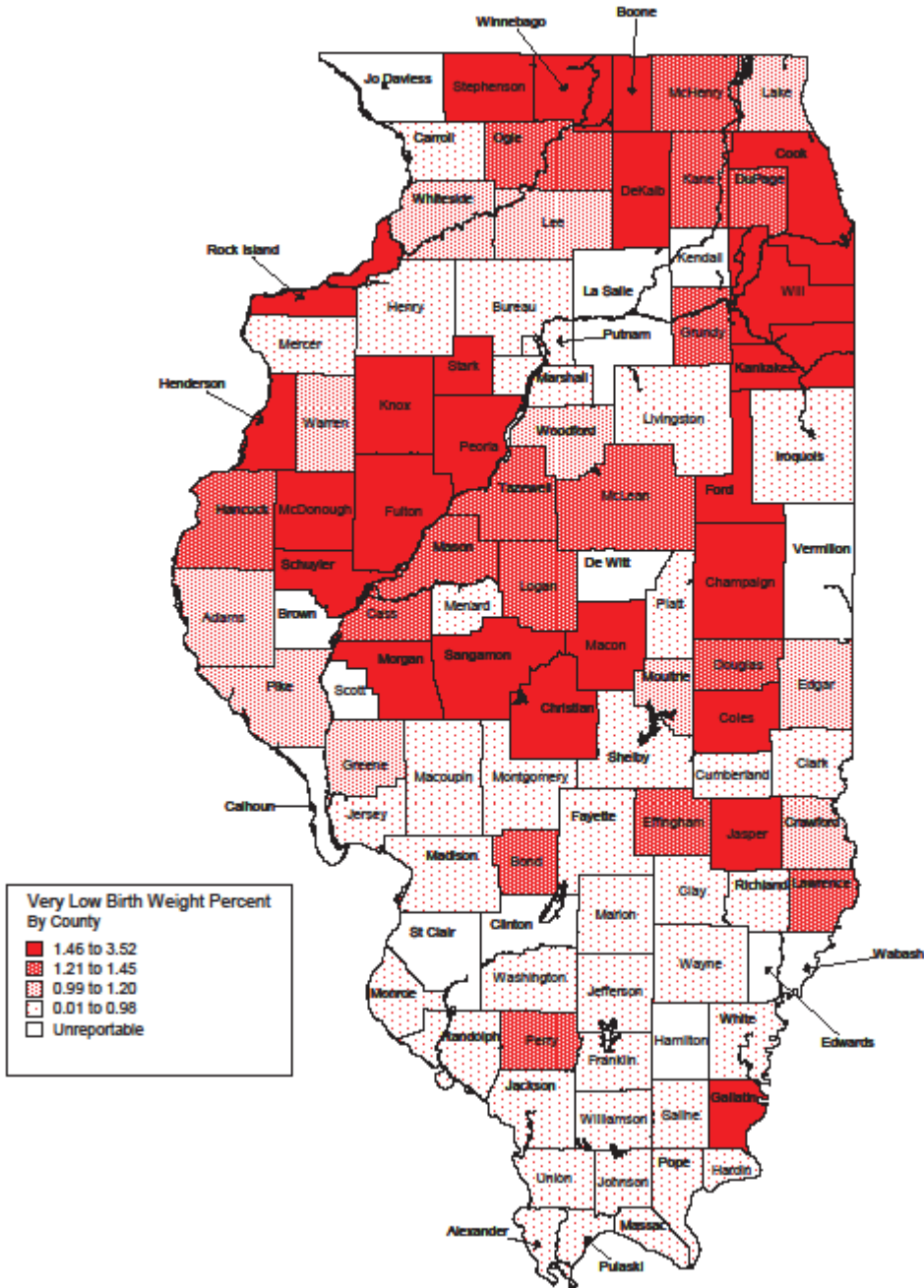


**Infant Mortality Rate per 1,000 HFS Covered Live Births
by Chicago Community Area
CY2008-CY2009**



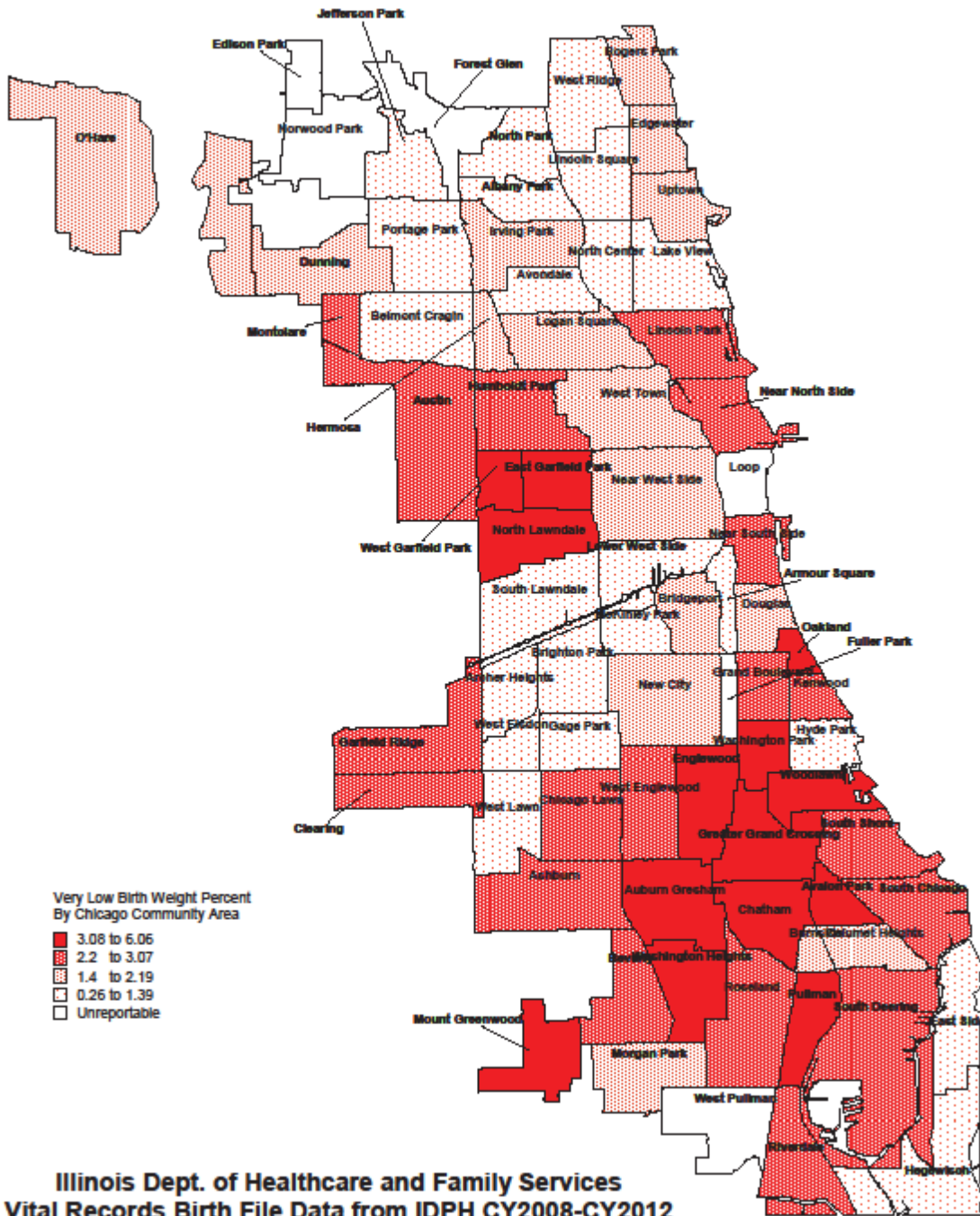
**Illinois Dept. of Healthcare and Family Services
Vital Records Birth File Data from IDPH CY2008-CY2009**

**Very Low Birth Weight Percent by County
Based on HFS Covered Live Births
CY2008-CY2012**



Illinois Dept. of Healthcare and Family Services Vital Records Birth File Data From IDPH CY2008-CY2012
Data are provisional for CY2010-CY2012

**Very Low Birth Weight Percent by Chicago Community Area
Based on HFS Covered Live Births
CY2008 - CY2012**



**Low Birth Weight Percent by Chicago Community Area
Based on HFS Covered Live Births
CY2008-CY2012**

