Report to the General Assembly
January 2016

Public Act 93-0536

State of Illinois
Bruce Rauner, Governor

Illinois Department of Healthcare and Family Services
Felicia F. Norwood, Director

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ILLINOIS DEPARTMENT OF
Healthcare and
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December 2015

Governor Rauner and Honorable Members of the General Assembly:

I am pleased to present the 2016 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, 2012, and 2014, and are available on our website on the Perinatal Report to the General Assembly webpage.

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 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, and more than 90 percent of the births to adolescents.

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 will continue our collaboration with them, members of the General Assembly and other stakeholders to craft a shared and renewed strategic vision for reducing poor birth outcomes and launch any new initiatives to accomplish that goal.

Sincerely,

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Legislative Mandate

Public Act (PA) 93-0536 (305 ILCS 5/5 – 5.23) was enacted with the goal of improving birth outcomes for approximately 80,000 babies whose births are covered by the Illinois Department of Healthcare and Family Services (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 PA 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, 2012, and 2014) is available on the HFS web site on the Perinatal Report to the General Assembly web page.

Acronyms

The following acronyms are used throughout this report.

AAFP	American Academy of Family Physicians
ACA	Affordable Care Act
ACOG	American Congress of Obstetrics and Gynecology
APORS	Adverse Pregnancy Outcome Reporting System (DPH)
ATOD	Alcohol Tobacco and Other Drugs
BBO	Better Birth Outcomes program (DHS)
CCCD	Care Coordination Claims Data (HFS)
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program (HFS)
CHIPRA	Children's Health Insurance Program Reauthorization Act (HFS)
CHITREC	Chicago Health Information Technology Regional Extension Center
CMS	Centers for Medicare and Medicaid Services
CoIIN	Infant Mortality Collaborative Improvement and Innovation Network (DPH)
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, (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 Health 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 (HFS)
EED	Early Elective Delivery
EHR	Electronic Health Records
EPS	Enhanced Perinatal Surveillance (DPH)

FCM	Family Case Management (DHS)
FDA	Federal Drug Administration
FIMR	Fetal and Infant Mortality Review (DPH)
FIMR-HIV	Fetal and Infant Mortality Review – HIV (DPH)
FPL	Federal Poverty Level
FQHC	Federally Qualified Health Center
FSBC	Free Standing 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
HPV	Human Papillomavirus
HRSA	Health Resources and Services Administration
IFPAP	Illinois Family Planning Action Plan (HFS)
IHW	Illinois Healthy Women (HFS)
ILPQC	Illinois Perinatal Quality Collaborative
IM	Infant Mortality
ITQL	Illinois Tobacco Quitline
IUD/IUS	Intrauterine Devices/Systems
JCAR	Joint Commission on Administrative Rules
LARC	Long-Acting Reversible Contraceptives
LBW	Low Birth Weight
MATEC	Midwest AIDS Training and Education Center
MCH	Maternal and Child Health
MCHB	Maternal and Child Health Bureau (HRSA)
MCO	Managed Care Organization
MIECHV	Maternal Infant Early Childhood Home Visiting
MMIS	Medicaid Management Information System (HFS)
MoD	March of Dimes
NCHS	National Center for Health Statistics
OASA	Office of Alcoholism and Substance Abuse (DHS)
OWHFS	Office of Women's Health and Family Services (DPH)

PA	Public Act
PACPI	Pediatric AIDS Chicago Prevention Initiative
PCMH	Patient Centered Medical Home
PCQT	Prenatal Care Quality Tool (HFS)
PHER	Pediatric HIV Exposure Reporting (DPH)
PMEDS	Prenatal Minimum Electronic Data Set (HFS)
PMHCT	Perinatal Mental Health Consultation Team
PRAMS	Pregnancy Risk Assessment Monitoring System (DPH)
QIO	Quality Improvement Organization (HFS)
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SBTF	State Breastfeeding Task Force (DHS)
SMART Act	Save Medicaid Access and Resources Together Act
SNAP	Supplemental Nutrition Assistance Program (DHS)
STI	Sexually Transmitted Infection
SUD	Substance Use Disorders
TEDS	Treatment Episode Data Set
TIPCM	Targeted Intensive Prenatal Case Management (DHS)
VBAC	Vaginal Birth After Cesarean Section
VLBW	Very Low Birth Weight
WIC	Special Supplemental Nutrition Program for Women, Infants and Children (DHS)

Introduction

The Illinois Department of Healthcare and Family Services (HFS) is the largest insurer in Illinois, providing comprehensive health insurance coverage for over 3.1 million Illinoisans in SFY2014. In calendar year 2013, HFS covered 51.9 percent of the state's births and 91.5 percent of births to teens (provisional data).[1]

Assessing trends in Illinois data (Appendix II) and national birth data from the National Center for Health Statistics (NCHS), Illinois experienced a 1.5 percent decrease in births from 2012 to 2013 which is slightly more than the <1 percent decline in the national birth number for the same period. Illinois is one of 12 states that saw a decline in the birth number from 2012 to 2013. The national teen birth rate declined from 2012 to 2013 by 10 percent while Illinois' teen birth rate declined by 13 percent. Illinois' low birth weight ([LBW] infants born less than 2,500 grams) rate for 2013 (8.1%) is comparable to the national low birth weight rate (8.0%). The very low birth weight ([VLBW] infants born less than 1,500 grams) rate for the U.S. and Illinois are comparable at 1.4 percent and 1.5 percent, respectively (2013).[2]

Social determinants of health are economic status and social conditions that affect health outcomes and lead to health disparities.[3] As the state Medicaid agency, HFS provides care to the lowest income groups thereby addressing economics as a social determinant of health to achieve improved outcomes. Therefore, this report focuses on health disparities as a result of economic status. Addressing health disparities based on race, in the U.S. and Illinois, disparities persist for Blacks/African Americans. The NCHS reports 2013 data showing the U.S. LBW rate for Blacks is 13.1 percent, 7.0 percent for non-Hispanic White and 7.1 percent for Hispanics. The data published by the NCHS shows the Illinois LBW rate among Blacks is 13.8 percent, 6.8 percent for non-Hispanic Whites and 7.1 percent for Hispanics (2013). Nationally and in Illinois, Blacks experience a nearly two-fold higher LBW rate compared to non-Hispanic Whites and Hispanics. Similarly, the NCHS report on the VLBW rate nationally (1.4%) and in Illinois (1.5%) are comparable. But, the rate for Blacks nationally and in Illinois (2.9% and 2.8%, respectively) are over two-fold higher than the national non-Hispanic White and Hispanic rates (1.1% and 1.2%, respectively) and the Illinois non-Hispanic Whites and Hispanic rates in Illinois (1.1% and 1.3%, respectively).[4]

This report identifies steps HFS has taken with its partners (sister state agencies, 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 birth outcomes; identifies the progress made to address poor birth outcomes through analysis of trend data; and summarizes steps in improving birth outcomes. The 2014 Perinatal Report also included Other Priority Recommendations that did not fit into a specific category. Since the 2004 Perinatal Report was issued, HFS, Illinois' Department of Public Health (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."

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[1] Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, November 20135.
[2] Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2013. National vital statistics reports; vol 64 no 1. Hyattsville, MD: National Center for Health Statistics. 2015.
[3] U.S. Centers for Disease Control and Prevention. (2015, November). *Social Determinants of Health*. Retrieved from http://www.cdc.gov/nchhstp/socialdeterminants/faq.html.
[4] Martin JA, Hamilton BE, Osterman MJK, et al. Births: Final data for 2013. National vital statistics reports; vol 64 no 1. Hyattsville, MD: National Center for Health Statistics. 2015.

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** **Update**	Family Planning coverage for the 19-year old population losing eligibility was extended under the Illinois Healthy Women (IHW) program in 2006. IHW was phased out 12/31/14, however, coverage is now available for this population under health care reform which provides the opportunity for improved access to health care coverage for the uninsured through Medicaid expansion to eligible adult populations, increased age limits on parent coverage, and availability to the Marketplace.
Include folic acid and vitamin supplementation in the package of covered services under Illinois Healthy Women (IHW)	**Completed** **Update**	Refer to the 2012 Perinatal Report for complete report on HFS' response to the recommendation. Even though coverage under IHW is no longer available, folic acid supplementation remains a covered service through HFS' benefit package.
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** **Update**	The IHW federal demonstration waiver was implemented in April 2004 and phased out December 31, 2014, providing family planning coverage to women who would otherwise *not* be eligible for Medicaid—for those, ages 19 through 44, losing comprehensive medical coverage, and/or, with income levels at or below 200 percent of the Federal Poverty Level (FPL). A brief synopsis of the successes experienced during the ten years of IHW is recapped below: • 193,715 unduplicated women received family planning services through IHW • more low-income women received *publicly-funded* family planning services with IHW experiencing a five-fold increase • IHW showed a lower rate of women with a birth spacing interval of <18 months compared to Medicaid women • IHW showed a higher rate of women with a birth spacing interval of 24 months or greater compared to Medicaid women • the Illinois unintended pregnancy rate decreased 9.1 percent (2001-2011), while the HFS rate for the same period decreased 10.4 percent • the IHW fertility rate is substantially lower than the total population and population of women ≤200 percent FPL. From 2005 to 2009, the fertility rate of IHW women on average (2.1%) was 9.5 percentage points less than Illinois women in poverty (11.6%) and nearly 5 percentage points less than the total Illinois population (7.0%) • reduced births among low-income women under age 25 • delays in pregnancies demonstrated by an increase in low-income women delivering between ages 30 through 39 • 48,369 averted births resulting in an estimated $559M in cost savings The full report submitted to Centers for Medicare & Medicaid

		Services (CMS) is available upon request by contacting HFS' Bureau of Quality Management. HFS was very pleased to have had the opportunity to administer this demonstration waiver since 2004. The evaluation findings reveal that having a family planning waiver reduces unplanned pregnancies and provides financial benefits to the State by reducing the amount of dollars spent on costly prenatal care, delivery, postpartum care and care provided during the first-year of the infant's life, which is consistent with evaluation results of family planning waivers nationally. However, additional benefits that are not easily measured include enabling women to obtain essential preventive reproductive healthcare services, the opportunity to make better-educated decisions regarding the timing of pregnancies which leads to enhanced self-sufficiency, and ultimately improved birth and health outcomes. In recognition of the positive outcomes directly attributable to the family planning waiver, and to maintain a focus on quality family planning services, as part of the IHW waiver phase-out/transition process, HFS developed a first-ever family planning policy to reinforce this service provision for all Medicaid beneficiaries. A provider notice was released on June 26, 2014 to inform enrolled providers of HFS' new policy – Quality Family Planning and Reproductive Health Care Services. This effort was part of a larger initiative HFS undertook to enhance family planning care for Medicaid beneficiaries. On August 20, 2014, HFS' Director announced the Department's new Illinois Family Planning Action Plan (IFPAP) at the Illinois Contraceptive Equity Summit held in Chicago. The IFPAP goal was to "increase access to family planning services for women and men in the Medicaid Program by providing comprehensive coverage to ensure pregnancy is a planned pregnancy" – Action #1, Payments and operational policies reflect the value HFS places on providing the most effective form of contraception (policy and payment reform), and Action #2, Health plans and providers in the Medicaid Program make all forms of family planning available to Medicaid clients in a convenient and seamless manner (remove service/financial/inventory barriers). Among the actions taken, the new policy for immediate postpartum long-acting reversible contraceptives (LARC) should have the most impact on reducing unintended pregnancies—women leaving the hospital after delivery with a very effective contraceptive method in place. A new page was added to the Department's web site and made available for providers, clients and the public to obtain additional information about family planning. A recent study by the Guttmacher Institute entitled *Return on Investment: A Fuller Assessment of the Benefits and Cost Savings of the US Publicly Funded Family Planning Program* concludes that for every public dollar spent on family planning, seven dollars are saved.
Add coverage for a preconception visit and interconception 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** **Update**	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. Refer to "Other Related Initiatives" later in this table – Illinois DocAssist -Perinatal Depression
Allow HFS reimbursement for screening for depression, such as for the Edinburgh Postnatal Depression Scale during the prenatal and postpartum period	**Completed**	Reimbursement continues. No update since last reported in the 2010 Perinatal Report.
Provide information and training to providers on how to use the depression screening tool	**Completed** **Ongoing**	HFS educated providers on the screening tool and partnered with other organizations to provide training on perinatal depression screening. In accordance with PA 95-046 the Perinatal Mood Disorder Act, DHS is mandated to provide educational materials to healthcare providers who are caring for pregnant women and their infants. The pamphlet, "Is It The Baby Blues or Something Else" is available free of charge, available in English and Spanish, and shipped in requested quantity amounts to providers across the state. DHS and a team of stakeholders developed Rules to accompany the Perinatal Mood Disorder Act. The rules address policy, frequency of screening, use of approved tools for screening, referral, staff credentialing, and documentation. Joint Commission Administrative Rules (JCAR) approved these in May 2015.
Identify a mechanism to provide mental health screening and treatment to women beyond the current 60 days postpartum eligibility period and work with other agencies (e.g., DHS', Division of Mental Health [DMH]) to provide mental health services to these women	**Completed** **Ongoing**	HFS reimburses for perinatal depression screening during the prenatal and postpartum periods, up to one year after birth. In accordance with PA 95-046, DHS continues to support screening, assessment and treatment of women for Perinatal Mood Disorders. All DHS funded case management programs are required to conduct screenings for Perinatal Mood Disorders at or after 25 weeks of pregnancy, and at least once during the child's first year of life. Women who screen positive in the Chicago area and have no resources for further assessment and treatment are referred to Healthcare Alternatives Systems, a community-based agency that receives funding for this service from DHS. Additionally, DHS provides partial funding to support a 24 hour Perinatal Hotline at NorthShore Hospital. Any person who desires more information about Perinatal Mood Disorder may use this Hotline to obtain general education, referral information, or provider support. The hotline number is 1-866-364-MOMS (866-364-6667). The Statewide Provider Database, operated by the Illinois Department of Children and Family Services (DCFS), includes statewide referral resources for perinatal depression services and treatment.

Oral Health		
Recommendation	**Status**	**Update**
Expand HFS coverage for prevention and treatment of oral disease in pregnant women, including measures to reduce colonization of S. mutans and to control periodontal infections	**Completed**	Per PA 98-0104, HFS is required 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 Congress 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 no longer sends periodic notices to participants. HFS covers smoking cessation products to assist participants in quitting smoking. HFS' dental program also promotes smoking cessation with participants. HFS provides electronic prescription pads that encourage patients to quit smoking and provide information on DPH/ITQL to providers via email. Providers can request hard copies.
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** **Update**	Effective January 2, 2014, tobacco cessation counseling services for the referenced populations is separately reimbursed. HFS continues to promote the ITQL for additional cessation support. In a provider notice dated August 26, 2014, HFS informed providers of changes to coverage of tobacco cessation counseling services and pharmacotherapy for pregnant and up to 60-day postpartum women.

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 (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. 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, 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**	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: • 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, TIPCM, 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 have smoking cessation programs in place at their agencies (e.g., 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.

Human Immunodeficiency Virus (HIV) Counseling		
Recommendation	**Status**	**Update**
Cover HIV counseling and testing under IHW	**Completed** **Update**	Refer to the 2010 Perinatal Report for complete report. Even though coverage under IHW is no longer available, HIV counseling and testing remains a covered service through HFS' benefit package.
Implement strategies (e.g., outreach and case finding of pregnant women) to ensure that pregnant women receive prenatal care and FCM services	**Completed** **Ongoing/Update**	Initiative continues. No update since last reported in 2010 the Perinatal Report. Refer to "Other Related Initiatives" PA 097-0689

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 Review (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. Three intensive trainings on Perinatal HIV Transmission, and case management needs of pregnant and parenting HIV infected women have been offered during 2015 to case managers from a variety of settings. All three trainings were provided with the assistance of the Midwest AIDS Training and Education Center (MATEC), and occurred in Chicago and near suburbs. The training was offered to providers downstate in the fall of 2015.
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 continues to track and monitor providers' compliance with the Illinois Perinatal Prevention Act. Several partnerships have enhanced Illinois' capacity to routinely screen and test pregnant women. The state's 10 Regional Perinatal Networks consist of both birthing and non-birthing hospitals. These hospitals are mandated to offer tests, deliver and report both preliminary and confirmed results to the 24/7 Perinatal Hotline within 24 hours. Monthly, hospitals are required to report a summary of all rapid tested and known HIV-positive women delivering at their facility to The Rapid Testing Initiative, previously known as the Perinatal Rapid Testing Implementation in Illinois (PRII^2). In 2013, approximately 150,832 women delivered babies in Illinois, with 108 known to be HIV positive at the time; 4.25 percent, or 6,405, pregnant women presented to labor and delivery with an undocumented HIV status. Of the women without documentation, 99.6 percent, or 6,378, were rapid tested, with twelve confirmed positive. In 2014, approximately 152,440 women gave birth in Illinois, with 117 known to be HIV positive at the time. Among the pregnant women entering labor and delivery, 95.4 percent, or 145,458, presented documentation of their HIV status and 4.6 percent, or 6,982 pregnant women, presented to labor and delivery with an undocumented HIV status. Of the women presenting to labor and delivery without documentation of their HIV status, 99.7 percent, or 6,959, were rapid tested, with four confirmed positive. As part of this initiative, the Pediatric AIDS Chicago Prevention Initiative (PACPI) also provides training to nurses, physicians, and support staff about the Illinois Perinatal HIV Prevention Act and Safety Net as well as providing resources to clinicians such as the services of the 24/7 Hotline and the perinatal enhanced case management program. The Illinois 24/7 Perinatal HIV Hotline is a statewide resource for medical and social service providers caring for pregnant HIV positive women. The Hotline provides up-to-date treatment recommendations for pregnant women and their HIV exposed infants. Additionally, the Hotline is the official reporting mechanism for positive rapid HIV tests performed on

Recommendation	Status	Update
		mothers and infants and it initiates follow up and support for hospital rapid test reports. Pediatric HIV Exposure Reporting (PHER), previously known as Enhanced Perinatal Surveillance (EPS) is a process used to collect demographic, behavioral and clinical information on all HIV positive pregnant women and their infants by conducting medical record chart abstractions, the data collected through PHER is then analyzed and evaluated for the purposes of conducting detailed case reviews and studies through our Fetal and Infant Mortality Review–HIV (FIMR-HIV) in order to identify, address and reduce missed opportunities of mother-to-child HIV transmission.
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**	Illinois took further action to increase use of certified nurse midwives with the implementation of Birthing Centers. Pursuant to Affordable Care Act (ACA) guidance, HFS and DPH worked 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. Birthing 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: • Delivery Services • Observation Services • Facility Transfer Fee A birthing 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 birthing 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.
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 (n=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-two 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**	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. 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. This evaluation is ongoing, and uses data from both Doula enhanced, and non-Doula enhanced home visiting sites. The expectation is that findings will demonstrate that the enhancement of Doula services produces better client outcomes than home visiting alone.

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 (BBO) 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 has been implemented. Refer to the BBO 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**	An Interconception Care Case Management program has been funded at the University of Chicago since 2013, using Family Case Management funds. Women who have had a recent perinatal loss are referred to the program through FIMR, and are offered case management for up to 2 years post-loss. The goals are to improve pregnancy spacing, to link to needed services for improvement of health and well-being, to engage in Reproductive Life Planning, and offer assistance with grief issues. Beginning February 2015, three BBO program agencies are referring postpartum women who had a poor pregnancy outcome, or a history of short interconception spacing to the University of Chicago project. Referral occurs between six and eight weeks postpartum following the woman's BBO enrollment period. Also refer to the BBO program under the SMART Act section of this report for additional information.

Public Act 93-0536 Other Priority Recommendations		
Recommendation	**Status**	**Update**
Disseminate information to the provider community concerning perinatal 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. Two obstetrics practices are currently pilot testing the tool and have integrated it into their electronic health records (EHRs). In addition to the PCQT, other standards of care have been disseminated to providers through the Illinois Perinatal Quality Collaborative (ILPQC), the PCMH-Asthma Learning Collaborative, and through HFS provider notices addressing perinatal care transitions and perinatal education.
Work with the provider community to educate their colleagues about the perinatal standards of care.	**Ongoing**	See Above HFS regularly provides evidence-based best practices through provider notices, toolkits, webinars, HFS web site, and face-to-face meetings.

Recommendation	Status	Update
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**	Through private foundation funding and CHIPRA grant funding, a Perinatal Education Toolkit was developed and pilot tested. The toolkit includes educational content on preconception, prenatal, postpartum, and interconception care. The toolkit was pilot tested in two communities involving various providers during 2014 and 2015. The toolkit was made available to HFS providers on September 30, 2015, through an informational webinar. In addition, the toolkit is being housed and maintained by EverThrive Illinois and is available to any interested clinical or non-clinical provider on EverThrive's web site.
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. This includes matching claims data to DPH Vital Records data to identify birth outcomes. HFS uses data to identify women who are currently pregnant and who are at risk for a poor birth outcome using an algorithm that runs against data in the Enterprise Data Warehouse (EDW). The algorithm identifies current pregnancy using pharmacy and claims data. The odds ratio analysis is used to identify women at risk for a poor birth outcome. Data on currently pregnant women at high risk are sent weekly to DHS for case management through the BBO program. Managed care organizations (MCO) also are informed of these women via a high risk pregnancy flag included in the Care Coordination Claims Data (CCCD) files. In this way, data are transferred into action to provide early, intensive prenatal care to prevent, or mitigate, poor birth outcomes. Additionally, through a competitive bid process, HFS procured a Data Analytics and Reporting Platform to provide complex medical analytic features, such as episode groupers, risk adjustments, predictive modeling, pharmacy analysis, and quality of care and utilization measurements. The system is being brought online during 2015/2016. Future analytics capacity will provide analysis functions to drill into data to identify those at risk for poor outcomes, e.g., birth outcomes.
Look at the effects of nutritional support from WIC and food stamp participation on birth outcomes.	**Not Initiated**	DHS has reported there are no plans to implement this evaluation.

Other Related Initiatives		
Initiative	**Status**	**Update**
Task Force on Prematurity in Illinois	**In Progress**	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. 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: • 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.
Infant Mortality Collaborative Improvement and Innovation Network (CoIIN)	**In Progress**	The Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality is a multi-year, national initiative supported by the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration (HRSA) in the Department of Health and Human Services (DHHS). The Illinois COIIN team continues to work on this collaborative and multi-state initiative to improve infant birth outcomes, and reduce infant mortality and prematurity. The state CoIIN Team includes representatives from HFS, DHS, DPH, academia, advocacy organizations, and other state MCH leaders and works with states nationwide on strategies to reduce infant mortality by utilizing quality improvement, innovation, and collaborative learning. Additionally, through this endeavor, the Illinois CoIIN team leads will develop a comprehensive statewide Infant Mortality Reduction plan. The areas of focus for Illinois teams for reducing infant morbidity and mortality are Safe Sleep, Pre/Interconception Health, Early Elective Delivery, and Social Determinants of Health, and Perinatal Regionalization State workgroups have been formed and members are in the process of working on chosen strategies for addressing each of the four areas. It is anticipated that a focused approach to each of these four areas over the coming years will not only reduce infant mortality, but also more generally improve the health of Illinois women, babies, and families. DPH is committed to reducing prematurity and infant mortality, and is facilitating the work of the CoIIN. A perinatal strategic plans for 2015-2020 has been implemented with the following goals: 1) Create a system for collecting and reporting

		Perinatal data that is aligned with national metrics and used to drive performance improvement; 2) Decrease disparities in access to care and improve quality outcomes in Perinatal services; 3) Improve coordination of Perinatal care across time, settings, and disciplines with a focus on care provided in the community.
CHIPRA Child Health Quality Demonstration Grant	**In Progress**	The CHIPRA Quality Demonstration Grant received a one-year extension and will conclude in February 2016. Activities completed and in progress include: • The PCQT was developed to assist providers in providing evidence-based prenatal care and making appropriate high-risk referrals. CHIRPA 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 is intended to be incorporated into EHR. The PCQT is being pilot tested by two obstetric practices in the final year of the CHIPRA grant. • 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. The PMEDS tool is being pilot tested in two FQHCs and an affiliated hospital in the final year of the CHIPRA grant. • CHIPRA developed an electronic Perinatal Education 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. The toolkit was pilot tested in two communities involving various providers during 2014 and 2015. The toolkit was made available to HFS providers on September 30, 2015, through an informational webinar. In addition, the toolkit is being housed and maintained by EverThrive Illinois and is available to any interested clinical or non-clinical provider on EverThrive's web site.
Illinois Perinatal Quality Collaborative (ILPQC)	**In Progress**	HFS' CHIPRA grant provided start-up funding for ILPQC, an independent statewide collaborative quality improvement organization 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. After launching in November 2013, the ILPQC focused on two projects – a neonatal infant feeding and nutrition project and an obstetrics early elective delivery (EED) project. The neonatal project involved 18 hospitals and resulted in significant improvements in quality of care and $4.5 million in savings. The project reduced the VLBW infants discharged with weights <10th percentile from 45 percent to 33 percent from January to December 2013, a 12 percentage point decrease. The EED initiative showed a reduction of the EEDs at 37-38 weeks from 2.33 percent to 1.81 percent from the first quarter of 2013 to the 4th quarter of 2014, a .52 percentage point decrease among 40 hospitals. In 2015, ILPQC kicked off a birth certificate accuracy project in partnership with the DPH. The goal is to achieve at least 95 percent accuracy on 17 key birth certificate variables from a baseline of 87 percent. At its 2nd annual conference in November 2014, ILPQC committed to two new perinatal quality improvement projects on maternal hypertension and the golden hour. The CHIPRA grant is supporting these projects in its final grant year. ILPQC is also partnering with the March of Dimes (MoD) on the Big 5 initiative to improve appropriate documentation and use of corticosteroids to >95 percent in 12 hospitals. ILPQC received a three year CDC grant, but is in need of ongoing sustainable funding. The 3rd annual conference was held November 18, 2015. Additional information can be obtained on the ILPQC web site.

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 was developed and implemented. Among other activities, implementation included development of a process to enhance care coordination between HFS and DHS for women identified with the potential for a high-risk birth outcome. Using claims data, when a woman with a previous high-cost birth or a prior pregnancy indicative of selective risk factors associated with birth outcomes is identified, that information is shared with DHS' BBO and FCM programs and TIPCM program. This process assures that women at risk for a poor birth outcome are identified and provided access to the BBO programs early in the prenatal period in order to improve the birth outcome.
Better Birth Outcomes (BBO) Program intensive prenatal case management program for high-risk pregnant women	**In Progress**	At the end of June 2015, a total of 24 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 June 2015~~,~~ there were approximately 2,250 women enrolled. The agencies are required to: • coordinate care with medical providers, and other community providers; • actively engage in outreach; • use a standardized prenatal curriculum from MoD that focuses on 1st trimester enrollment, prenatal education, linkage with appropriate providers, coordinated model of care, community outreach, postpartum health visit interconception spacing; • use a standard risk assessment tool; and, • assure women complete postpartum care visits and are linked to a reproductive health care provider post-delivery. The intent is to move existing FCM providers to this model of care over the next several years, with initial steps incorporated into the FY2016 FCM contract.
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.	**Update**	During FY14, 1,243 Cesarean deliveries were reviewed and 53 cases were determined to be medically unnecessary. In 2014, eQHealth, HFS' QIO, requested a statistical sample of maternity health records to review. However, during the first year of review, the non-response rate averaged 8.1 percent of the sampled population. Many non-responders were inadvertently reimbursed at the Cesarean delivery rate. To determine the financial impact to non-responding providers, eQHealth tracked all of the non-responsive records within the inpatient claims data. eQHealth identified 51 non-responsive Cesarean section claims. Of the 51 claims, 46 hospitalizations (90.2%) were paid with amounts ranging from $2,300 to $4,270. As a result, and to ensure program adherence, HFS implemented a program modification to review all Cesarean deliveries effective September 12, 2014. In FY15, from September 12, 2014, through June 30, 2015, 7,316 Cesarean deliveries were reviewed, and 80 were determined to be medically unnecessary. The non-response rate averaged 10.6 percent (780). No payment was made for deliveries for which no response was received. Cost savings is currently being calculated for the 780 non-responders. It should be noted that six Illinois hospitals have adopted policies to not perform vaginal births after previous cesarean section (VBAC) deliveries. ACOG guidelines recommend that hospitals have staff readily available to perform emergency cesarean sections when women present for VBAC. These hospital policies could lead to access issues and/or an increase in non-medically indicated Cesarean deliveries.
Birthing Centers	**In Progress**	DPH certifies Birthing Centers. PCC 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 free standing birth center (FSBC) in Illinois, subject to finalization of their DPH license. The birthing center opened in Oak Park, Illinois in 2014. HFS

		provides reimbursement for labor and delivery services provided to Medicaid recipients in birthing centers. HFS released a provider notice and Birth Centers Handbook on December 20, 2013.
Illinois DocAssist Program with UIC School of Psychiatry –-- Perinatal Depression	**Ongoing**	Illinois DocAssist was originally established to provide professional behavioral health consultation services (mental health, substance abuse, trauma-informed issues, etc.) for HFS enrolled children, and provides support to primary care physicians faced with pediatric behavioral health issues. In FY2015, HFS expanded the role of Illinois DocAssist to include expanded access to direct consultation for primary care physicians regarding perinatal depression, the maintenance of a medication chart specific to perinatal depression, and dedicated training focused on perinatal depression. More information can be found at the Illinois DocAssist web site.
Title V Needs Assessment	**In Progress**	In June 2015, the DPH Office of Women's Health and Family Services (OWHFS) completed a federally mandated 5-year needs assessment for the Maternal and Child Health (Title V) Block Grant. The main goal of the needs assessment was to gather a wide array of data that would inform priority-setting for the work of the Title V program over the next five years. To achieve this end, the OWHFS engaged a wide variety of stakeholders in data collection, data interpretation, and prioritization. The complexity and magnitude of current MCH challenges require innovative and collaborative approaches to solve these issues. There were four main mechanisms for gathering input from professional and consumer stakeholders: 1) a series of provider/organization surveys, 2) consumer focus groups, 3) key informant interviews, and 4) an invited expert panel that advised the office on recommended priorities. When these four mechanisms were combined, hundreds of individuals and organizations were able to provide input into identifying MCH needs in Illinois and providing feedback about potential priority areas, strategies, and action steps. The surveys received a total of 227 responses, including forty-four local health departments, three faith-based organizations, and 180 MCH providers. Seventeen focus groups were held throughout the state, involving 176 consumers. Twenty-two key informant interviews were conducted with leaders in various fields of public health, healthcare, and other issues impacting women and children (e.g., domestic violence, mental health). In addition to the qualitative data collection, a quantitative databook was generated to provide data from population-based sources on key MCH indicators. The databook was organized to include a demographics section, and fact sheets on select indicators for the six MCHB population domains. Illinois' CDC Assignee in MCH epidemiology conducted the analyses and created the databook. When planning the databook, the goal was to identify approximately eight to ten health topics or key

		indicators that represented the health issues of each population domains. Within each topic, statewide trends, and relevant disparities were reported, as data were available. An expert panel was convened to synthesize the qualitative and quantitative data and then recommend Title V priority needs to OWHFS. State leaders in a variety of fields impacting women and children were invited to participate in the expert panel. Seventeen persons accepted the invitation and attended the expert panel meeting held on April 28, 2015. The expert panel meeting was facilitated by a contractor with expertise in strategic planning, meeting facilitation, and leadership development. In advance of the meeting, the expert panel was provided with several documents they were asked to read and reflect on, which were meant to prepare them for the discussion of state priorities. During the expert panel meeting, the facilitator asked participants to reflect on the information they had reviewed and to share their thoughts with the group. Small group exercises had the panel members work together to develop important criteria and premises for the Title V priorities. Through a participatory process, expert panel members provided feedback on general topics and needs that they felt Title V should better address in the next five years. Taking the recommendations of the expert panel into account and considering other elements (e.g., political will, feasibility) OWHFS developed the following list of Title V priorities for 2016-2020: • Assure accessibility, availability and quality of preventive and primary care for all women, particularly for women of reproductive age • Support healthy pregnancies and improve birth outcomes • Support expanded access to and integration of early childhood services and systems • Facilitate the integration of services within patient-centered medical homes for all children, particularly for children with special healthcare needs • Empower adolescents to adopt healthy behaviors • Assure appropriate transition planning and services for adolescents and young adults, including youth with special health care needs • Assure that equity is the foundation of all MCH decision-making; eliminate disparities in MCH outcomes • Support expanded access to and integration of mental health services and systems for the MCH population • Partner with consumers, families and communities in decision-making across MCH programs, systems and policies.

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 and encounter data matched with shared data from DHS' Cornerstone system and DPH's Vital Records. The period reported varies by measure and typically covers a three-year trend period. These charts and graphs show what is currently known about HFS births, including demographics, health care utilization, 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 2014 Perinatal Report, there have been methodological changes in the data analysis strategy, primarily improvements in the identification of deliveries based on claims data. Measure programming is updated to conform to Healthcare Effectiveness Data and Information Set (HEDIS®) measure specifications updates. These changes mean that data depicted in this report are not necessarily comparable to data reported in the 2014 Perinatal Report. As such, comparison between Perinatal Reports is not appropriate since each report reflects the data at the time of publication.

This report uses Vital Records data from DPH for the CY2011-CY2013 period. The CY2011-CY2012 data are certified and CY2013 data are uncertified. There are no infant mortality matched birth/death file data for these years. The use of these Vital Records data is necessary since they are the most recent available for the 2016 Perinatal 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.

The movement of over 50 percent of Medicaid recipients to managed care significantly developed in CY2014. Services provided within managed care settings need to be reported as encounter claims rather than traditional fee for service claims. Extensive changes to the Illinois HFS Medicaid Management Information System (MMIS) to process encounter claims have been required. Similarly, Medicaid health plans have needed to adjust to new reporting requirements. Both HFS and the payer community continue to advance to meet expectations with all related systems projected to be updated during 2016 at which time 2014 and 2015 data will be brought up to date. Therefore, data for CY2014 are not included in the trend period for quality metrics due to impacts of encounter data.

Birth Demographics

- Based on DPH Vital Records data (CY2011-CY2012 certified, CY2013 uncertified), total Illinois and Medicaid-covered deliveries appear to be declining. The percentage of Illinois deliveries covered by Medicaid remains above 50 percent. (Appendix II, ***Number of Illinois Deliveries Covered by Medicaid CY2011–CY2013*** [Chart 1] and ***Percentage of Illinois Deliveries Covered by Medicaid CY2011–CY2013*** [Chart 2])

- Based on Vital Records data (CY2011-CY2012 certified, CY2013 uncertified), total Illinois and Medicaid-covered deliveries among teens are decreasing. Medicaid continues to cover over 90 percent of teen deliveries in Illinois. (Appendix II, ***Number of Illinois Teen Deliveries***

Covered by Medicaid CY2011–CY2013 [Chart 3] and ***Percentage of Illinois Teen Deliveries Covered by Medicaid CY2011-CY2013*** [Chart 4])

- According to the CY2012 Pregnancy Risk Assessment Monitoring System (PRAMS) data, 56.5 percent of pregnancies to Medicaid covered women were unintended compared to 24.7 percent of women not covered by Medicaid. Therefore, women enrolled in HFS' medical programs (or low-income women) are over two-times more likely to have an unintended pregnancy than women not enrolled in HFS' medical programs. PRAMS data are not available after CY2012. (Appendix II, ***Unintended Pregnancy Illinois PRAMS CY2012*** [Chart 5])

- The percentage of women enrolled in Medicaid experiencing a first-time birth appears to be declining, while those experiencing a subsequent birth (2nd or higher)appears to be increasing. (Appendix II, ***Medicaid Births by Birth Order CY2011–CY2013*** [Chart 6])

- Of women experiencing a subsequent birth, there appears to be an increase in the percentage of births with a 24-month or greater interval based on provisional data. Birth intervals between 12-17 months and between 18-23 months appear to be decreasing. Intervals of less than 12 months are relatively stable. Presumably, these data indicate a shift from shorter to longer birth intervals. Intervals of between 18 and 24 months are optimal for having better birth outcomes. (Appendix II, ***Medicaid Subsequent Births by Interval in Months CY2011–CY2013*** [Chart 7])

Delivery

- Vaginal deliveries to women enrolled in Medicaid decreased from 70.8 percent (CY2011) to 70.3 percent (CY2013) of total deliveries. Cesarean section deliveries increased from 29.2 percent (CY2011) to 29.7 percent (CY2013) of total deliveries. From CY2011 to CY2013, the vaginal delivery rate decrease and Cesarean section delivery rate increase are statistically significant at the $p<.05$ level. (Appendix II, ***Medicaid Vaginal vs. Cesarean Deliveries CY2011–CY2013*** [Chart 8])

- From CY2011 to CY2013, the Cesarean section rate among women experiencing a first birth of a single fetus in vertex position had a non-statistically significant increase from 21.2 percent to 21.5 percent. An increase in the Cesarean section rate may indicate more elective deliveries are occurring. (Appendix II, ***Medicaid Cesarean Rate for Nulliparous Singleton Vertex CY2011–CY2013*** *[Chart 9])*

Birth Outcomes

- Based on Vital Records data (CY2011-CY2012 certified, CY2013 uncertified), normal births comprise over 50 percent of all birth outcomes annually, but that rate is decreasing over time. The rates of Other Non-normal diagnosis related grouping (DRG) and LBW (1,501 to 2,500 grams) and VLBW ($\leq$1,500 grams) births are relatively stable. IM matched birth/death file data are not available. Other non-normal DRG births are defined by codes 385, 386, 387,

388, 389, 390, 985, 986, 987, or 989[5] at any time during first year of life. (Appendix II, ***Medicaid Births by Birth Outcome CY2011–CY2013*** [Chart 10])

- Based on certified Vital Records data for CY2011-CY2012, the VLBW birth rate per 1,000 live births for the Medicaid population shows a non-statistically significant increase while the total Illinois population had a non-statistically significant decrease. Data for CY2013 should be reviewed once certified since the provisional data show decreases between CY2012 and CY2013 for both groups. (Appendix II, ***Very Low Birth Weight Rate per 1,000 Live Births All Races CY2011–CY2013*** [Chart 11])

- Based on certified Vital Records data for CY2011-CY2012, the LBW (≤2,500 grams) rate per 1,000 live births for the Medicaid enrolled had a non-statistically significant increase and the total Illinois population had a non-statistically significant decrease. The provisional CY2013 LBW rates should be reviewed once certified since there are increased rates for both groups, with a much larger magnitude increase for Medicaid enrolled. (Appendix II, ***Low Birth Weight Rate per 1,000 Live Births All Races CY2011–CY2013*** [Chart 12])

- The Illinois infant mortality rate per 1,000 live births decreased from 10.7 in 1990 to 6.5 in 2012. Although the infant mortality rate for African Americans also has decreased, the racial disparity continues to be dramatic, with the African American rate over two and a half times higher than the White rate (13.2 and 5.1, respectively, 2012). (Appendix II, ***Illinois Infant Mortality Rate by Race, CY1990-CY2012*** [Chart 13])

- DPH administers the Illinois Perinatal System, which is a statewide system providing 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 Vital Records data (CY2011-CY2012 certified, CY2013 uncertified), among Medicaid covered deliveries over two-thirds of all VLBW births were delivered at a Perinatal Level III facility, followed by nearly half of LBW births and over one-third of other non-normal DRG deliveries. These data show that more high-risk infants are being delivered at a Perinatal Level III facility compared to those with a normal outcome. But, 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 CY2011–CY2013*** [Chart 14])

- Among Medicaid covered deliveries at a Perinatal Level III facility, approximately three-fourths of VLBW births, nearly half of LBW births and over one-third of other non-normal DRG births were delivered by Cesarean section. Among normal births delivered at a Level III facility, over 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 Vital Records data (CY2011-CY2012 certified, CY2013

[5] 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

uncertified). (Appendix II**, *Medicaid Cesarean Deliveries at a Level III Facility by Birth Outcome CY2011–CY2013*** [Chart 15])

- Using Vital Records data (CY2011-CY2012 certified, CY2013 uncertified) to identify births, from CY2011 to CY2013 the number of women enrolled in Medicaid and participating in WIC or FCM has decreased as the number of births has decreased. Relative to all HFS covered births, the percentage of women enrolled in WIC/FCM decreased slightly in CY2013. Anecdotal reasons possibly accounting for the decrease are having fewer available FCM providers as health departments have dropped the program and having smaller WIC caseloads due to increased Supplemental Nutrition Assistance Program (SNAP) benefits. (Appendix II, ***Number and Percentage of Medicaid Births Served by WIC or FCM CY2011–CY2013*** [Chart 16])

- Among women enrolled in Medicaid who participated in WIC/FCM, there were more births with a normal outcome compared to those who did not participate in WIC/FCM. However, based on Vital Records data (CY2011-CY2012 certified, CY2013 uncertified) both groups saw decreasing percentages of normal birth outcomes from CY2011 to CY2013. Participants in WIC/FCM also showed lower rates of LBW, VLBW and other non-normal DRG births compared to those who did not participate in WIC/FCM. (Appendix II, ***Medicaid Birth Outcomes by WIC/FCM Participation vs. Non-participation CY2011–CY2013*** [Chart 17])

- The total average annual cost (includes prenatal, delivery, postpartum, and baby's first year of life costs) among those participating in WIC/FCM is lower than the costs for those who did not participate in these programs. The average annual costs for LBW and other non-normal DRG births are lower among those participating in WIC/FCM compared to those who do not participate. The average annual cost of normal births and VLBW births among those participating in WIC/FCM is higher than those who do not participate in these programs. These increased costs for normal births are likely due to increased care during the prenatal, postpartum and baby's first year of life associated with involvement in the WIC/FCM programs. During CY2012, DHS began the BBO program focusing on recruiting high-risk pregnant women into early, intensive prenatal care. The BBO program is included in the analysis as part of the FCM program. The higher costs associated with VLBW births may be attributed to the ongoing involvement with the programs (i.e., FCM, BBO) during the prenatal, postpartum and baby's first year of life compared to a lack of similar engagement among those not in WIC/FCM. (Appendix II, ***Average Annual Delivery Cost and Birth Outcome Costs among WIC/FCM Participants vs. Non-participants CY2011–CY2013*** [Chart 18])

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 less than 6.0 percent. However, from CY2011 to CY2013 the rate of women receiving less than 21 percent of recommended visits increased significantly ($p < .05$). The percentage of pregnant women covered by HFS receiving more than 80 percent of recommended prenatal care visits decreased from CY2011 (82.4%) to CY2013 (78.1%). This 4.3 percentage point decrease is statistically significant ($p < .05$). (Appendix II, ***Medicaid Frequency of Ongoing Prenatal Care CY2011–CY2013*** [Chart 19])

- The percentage of pregnant women covered by HFS who received timely prenatal care visits is slightly above 50 percent, showing a need for improvement. The 2.3 percentage point decrease in the rates from CY2011 to CY2013 is statistically significant ($p < .05$). Based on HEDIS® specifications, timely prenatal care is defined as visits occurring within the first trimester of the pregnancy, or within 42 days of enrollment in one of HFS' medical programs. (Appendix II, ***Medicaid Timeliness of Prenatal Care CY2011–CY2013*** [Chart 20])

- Using Vital Records data (CY2011-CY2012 certified, CY2013 uncertified), higher rates of women delivering VLBW, LBW and other non-normal DRG births received prenatal care at a Perinatal Level III hospital compared to women delivering a normal birth. While CY2013 data show an apparent increase in prenatal care services occurring at a Perinatal Level III among women subsequently delivering an infant with poor birth outcome, the rates should be viewed with caution as they are based on uncertified Vital Records data and there was an update to the list of Perinatal Level III hospitals in the data system. However, from CY2011 through CY2013, the rates at which women delivering births with poor outcome received prenatal care at a Perinatal Level III hospital is approximately 50 percent or less. 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 II, ***Medicaid Prenatal Services at a Level III Facility by Birth Outcome CY2011– CY2013*** [Chart 21])

- The percentage of women covered by HFS who received postpartum care on or between three to eight weeks after delivery decreased by a statistically significant ($p < .05$) 3.4 percentage points from CY2011 (57.1%) to CY2013 (53.7%). 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 II, ***Medicaid Timeliness of Postpartum Care CY2011–CY2013*** [Chart 22])

- HFS further investigated the above rates of women receiving postpartum care, by removing the HEDIS® specification defining timely receipt of postpartum care as occurring between 21 and 56 days postpartum. The histogram in Chart 23 shows the distribution of the first postpartum visit by number of days after delivery for consistency with HEDIS®, which also counts days from the delivery date. The data show that a substantial number of postpartum visits occur outside of the 21 to 56 day window defined by the HEDIS® measure. HFS' data show that of the total number of women receiving at least one postpartum visit in CY2012, 27.8 percent of postpartum visits occurred between 1 and 20 days after delivery, 63.0 percent between 21 and 56 days post-delivery and 9.3 percent were between 57 and 90 days post-delivery (data not shown). Based on the total number of HFS covered deliveries occurring in CY2012, 70.4 percent of women received at least one post-partum visit between one and 90 days post-delivery (data not shown). This rate is substantially higher than the 54.7 percent rate reported (CY2012, Chart 22) based on the HEDIS® specifications for timely receipt of postpartum care. Defining receipt of postpartum care in a less restrictive manner than the HEDIS® measure may provide important information to assess quality improvement initiatives focused on increasing receipt of postpartum care independent of a 21-56 day window. (Appendix II, ***Medicaid Number of Postpartum Visits Occurring after the Discharge Date by Days after Delivery CY2011–CY2013*** [Chart 23])

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 6.2 percent compared to almost no report of abuse for non-HFS covered women. Over 3.5 percent of women covered by HFS reported abuse during pregnancy, compared to almost no report of abuse for non-HFS covered women. PRAMS data are not available after CY2012. (Appendix II, ***Physical Abuse: Illinois PRAMS CY2012*** [Chart 24])

- HFS covered women are less likely to use alcohol in the three months before pregnancy and during pregnancy than other women. Approximately 46 percent of HFS women reported using alcohol before pregnancy compared to 71.9 percent of non-HFS covered women. During the last three months of pregnancy, 4.6 percent of HFS women reported using alcohol, compared to 9.9 percent of non-HFS covered women. (Appendix II, ***Prevalence of Drinking Before and During Pregnancy: Illinois PRAMS CY2012*** [Chart 25])

- HFS covered women are more likely to smoke than other women before and during pregnancy. More than 29 percent of HFS women smoked in the three months before pregnancy, and 14.1 percent smoked during the last three months of pregnancy, compared to 11.6 percent of other women who smoked before pregnancy, and 3.2 percent who smoked during pregnancy. (Appendix II, ***Prevalence of Smoking before and During Pregnancy: Illinois PRAMS CY2012*** [Chart 26])

- There were over 27,000 calls to the Illinois Tobacco Quitline during SFY2014. This represents a nearly 40 percent increase in calls from SFY2011 (n=19,659). The majority of callers were females (59.6%). As a percentage of total SFY2014 calls, 11 percent of callers have children under the age of five, 2.1 percent receive WIC benefits and 1.9 percent reported being pregnant. There is a substantial decrease in calls attributed to an HFS mailing. This could be due to the less frequent mailings to enrollees. (Appendix II, ***Illinois Tobacco QuitlineCalls for SFY2011–SFY2014*** [Chart 27])

- The number of women enrolled in Medicaid and receiving Office of Alcoholism and Substance Abuse (OASA) treatment facility services increased from 12,478 (SFY2012) to 14,045 (SFY2014) while the total number of women served decreased from 25,694 (SFY2012) to 24,978 (SFY2014). As a percentage of all women receiving treatment services, women enrolled in Medicaid increased from 48.6 percent (SFY2012) to 56.2 percent (SFY2014). (Appendix II, ***Number of Women Served in OASA-supported Treatment Facilities SFY2012–SFY2014*** [Chart 28])

- The number of women with children receiving OASA-supported substance abuse services increased from SFY2012 to SFY2014 (6,271 to 6,479, respectively) while the number of all women with children served decreased from 9,925 (SFY2012) to 9,586 (SFY2014). (Appendix II, ***Number of Women with Children Receiving OASA-supported Substance Abuse Services SFY2012–SFY2014*** [Chart 29])

- Of the total number of women receiving OASA-supported substance abuse services who are enrolled in Medicaid and have children there was a decrease from SFY2012 (50.3%) to SFY2014 (46.1%). During the same period, as a percentage of all women served, the percentage of women with children remained relatively stable from SFY2012 to SFY2014 at

approximately 38 percent. (Appendix II, ***Percentage of Women with Children Receiving OASA-supported Substance Abuse Services SFY2012–SFY2014*** [Chart 30])

- Based on CY2012 PRAMS data, women enrolled in Medicaid reported being diagnosed with postpartum depression at a higher rate than other women. Among women enrolled in Medicaid, 14.4 percent reported a postpartum depression diagnosis compared with 6.1 percent of non-Medicaid covered women. Observing the confidence intervals around these rates, this is a statistically significant difference. (Appendix II, ***Postpartum Depression Diagnosis: Illinois PRAMS CY2012*** [Chart 31])

- Using HFS claims and encounter data, from CY2011 to CY2013 (31.2% and 28.3%, respectively) there was a statistically significant decrease of -9.3 percent in the rate of women receiving a prenatal depression screening. However, there was a statistically significant increase ($p < .05$) from CY2011 (31.6%) to CY2013 (34.9%) in the rate that women received postpartum depression screening. There was also a statistically significant increase from CY2011 to CY2013 in the rate of women receiving both prenatal and postpartum depression screening (19.3% and 20.1% respectively). While the increase is a positive trend, improvement is still needed as only 1 in 5 women receive both a prenatal and postpartum depression screening. (Appendix II, ***Medicaid Perinatal Depression Screenings CY2011–CY2013*** [Chart 32])

- From CY2011 to CY2013, there were statistically significant decreases ($p < .05$) in the rate of chlamydia screening among females 16 -24 years of age, and the sub-categories of 16-20 years and 21-24 years. Among those 16-20 years of age the screening rate declined from 47.6 percent (CY2011) to 45.0 percent (CY2013). Those 21-24 years of age saw rates decline from 57.0 percent (CY2011) to 54.6 percent (CY2013). The rates for the total age range (16-24 years) declined from 51.9 percent (CY2011) to 49.5 percent (CY2013). (Appendix II, ***Medicaid Chlamydia Screening Among Females 16-24 Years of Age CY2011–CY2013*** [Chart 33])

- From CY2011 to CY2013, there was a statistically significant increase ($p < .05$) in the rate of Human papillomavirus (HPV) vaccination among 13 year old females (11.7% to 14.3%, respectively). While the trend shows a positive increase, the rate of vaccination remains low with approximately one of 10 female adolescents receiving the vaccine. (Appendix II, ***Medicaid Human Papillovavirus (HPV) Vaccine for Female Adolescents 13 Years of Age CY2011–CY2013*** [Chart 34])

- HFS was one of only a handful of states able to report on a developmental Adult Core Set measure to assess the use of most or moderately effective contraceptives and created by the CDC. From CY2011 to CY2013, use of contraceptive methods considered most or moderately effective decreased from 20.1 percent to 19.4 percent among 15 to 20 year olds and from 47.5 percent to 46.8 percent among those ages 21 to 44; both decreases are statistically significant ($p < .05$). Most or moderately effective methods are female sterilization, contraceptive implants, or intrauterine devices or systems (IUD/IUS). Moderately effective methods are injectables, oral pills, patch, ring, or diaphragm. LARC include use of contraceptive implants, intrauterine devised or systems (IUD/IUS) and are included in this measure. (Appendix II, ***Medicaid Use of Most or Moderately Effective Contraceptive Method CY2011–CY2013*** [Chart 35])

- HFS was one of only a handful of states able to report on a developmental Adult Core Set measure to assess the use of LARC and created by the CDC. From CY2011 to CY2013, use of LARC methods decreased among those ages 15 to 20 (3.9% to 3.7%, respectively) and among those 21 to 44 years of age (8.3% to 8.0%, respectively). While the decreases appear slight, they are statistically significant ($p < .05$). LARC methods include use of contraceptive implants, intrauterine devised or systems (IUD/IUS). (Appendix II, ***Medicaid Use of Long-acting Reversible Contraceptive (LARC) Method CY2011–CY2013*** [Chart 36])

- HFS conducted an odds ratio analysis to determine conditions associated with an adverse birth outcome. The results show that the following are the top ten conditions associated with an adverse birth outcome (i.e., LBW, VLBW or IM):
    - o Multiple birth
    - o Previous VLBW
    - o Placenta abruption
    - o Eclampsia
    - o Diabetes
    - o Previous moderately LBW
    - o Polyhydramnios
    - o Incompetent cervix
    - o Hypertension
    - o Drug/alcohol abuse

  Note: Only women who had a previous birth covered by Medicaid were included in the analysis. Women may be included in more than one pre-existing condition. An odds ratio of greater than one indicates a higher probability of an adverse birth outcome. If the confidence interval crossed 1.0, the odds ratio was considered non-significant. 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 health conditions for more intensive interventions designed to improve subsequent birth outcomes. (Appendix II, ***Medicaid Odds Ratio of Adverse Birth Outcome for HFS Women with a Previous Birth Based on Select Risk Factors – CY2014 Births*** [Chart 37])

Family Planning

- Using certified Vital Records data, the rate of HFS enrolled women receiving family planning services (birth control) within six months after delivery significantly ($p < .05$) declined from CY2011 (65.8%) to CY2012 (62.3%). There is a further decline from CY2012 to CY2013. Data for CY2013 show less than 60 percent of women receive family planning services post-delivery. (Appendix II, ***Medicaid Births with Family Planning Service within Six Months After Delivery CY2011–CY2013*** [Chart 38])

- Using certified Vital Records data (CY2011-CY2012), the percentage of HFS enrolled women receiving family planning services (birth control) within six months after delivery has significantly ($p < .05$) declined for normal, other non-normal and LBW births; there is a non-statistically significant decline for VLBW. Consistently across the time period, the rate of receipt of family planning services within six months post-delivery remained higher among women who experienced a normal birth compared to those with a poor birth outcome. Approximately one-third to one-half of women, depending on the birth outcome category, did not receive family planning services within six months after delivery. Women who had a VLBW birth are the least likely to receive family planning services within six months post-

delivery. This is especially troubling since, based on HFS' odds ratio analysis (Chart 37), a previous delivery of a VLBW infant is highly predictive of a subsequent poor birth outcome delivery. (Appendix II, ***Medicaid Births by Outcome with Family Planning Service within Six Months After Delivery CY2011–CY2013*** [Chart 39])

HFS Eligibility

- From CY2011 to CY2013 among HFS-enrolled women who gave birth, data show a significant increase ($p < .05$) in the percent enrolled $\geq$ 12 months prior to delivery (52.1% to 55.7%, respectively). Conversely, there is a significant decrease ($p < .05$) in the percent enrolled three to nine months (33.5% to 31.3%, CY2011 to CY2013) and 9-12 months prior to delivery (11.0% to 9.4%, CY2011 to CY2013). These data are likely showing a shift in enrollment duration from the shorter periods of between 3 to <12 months duration to a longer duration. Post-delivery, there are significantly more ($p < .05$) women eligible for $\geq$ 9 months (22.9% to 28.3%, CY2011 to CY2013) and significantly fewer ($p < .05$) who are enrolled from 0 to <9 months. These trends indicate that opportunity exists to provide care interconceptionally. (Appendix II, ***Women Enrolled in Medicaid Before and After Delivery All Births CY2011 –CY2013*** [Chart 40])

- Of HFS-enrolled women who experienced a poor birth outcome, the data show that over 50 percent were eligible $\geq$ 12 months prior to delivery (55.0% to 56.5%, CY2011 to CY2013) and fewer were eligible for 3 to <9 months (33.8% to 32.4%, CY2011 to CY2013) or for 9 months to <12 months (7.0% to 5.9%, CY2011 to CY2013). However, there was an increase in the percentage of women enrolled for $\leq$90 days (4.3% to 5.1%, CY2011 to CY2013). Regarding enrollment duration following delivery of a birth with poor outcome, there was an increase from 26.5 percent (CY2011) to 29.7 percent (CY2013) in the percent of women enrolled for $\geq$9 months and a decrease in the percent enrolled for <90 days (32.7% to 30.8%, CY2011 to CY2013) and 3 to <9 months (40.8% to 39.5%, CY2011 to CY2013). This represents an opportunity to engage these women at high-risk in interconception care aimed at improving the outcome of subsequent births. Data for CY2011-CY2012 use certified Vital Records, CY2013 uses uncertified data. (Appendix II, ***Women Enrolled in Medicaid Before and After Delivery by Selected Poor Birth Outcomes CY2011–CY2013*** [Chart 41])

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 cost of prenatal, delivery, postpartum and infant's first year of life for non-normal births (i.e., VLBW, LBW, and other non-normal DRGs) is over 3.5 times the costs for a normal birth (about $1.01B per year compared to approximately $281M per year for normal births, CY2013). From CY2011 to CY2013, combined costs for non-normal births rose while costs for normal births declined. The total combined costs rose from CY2011 to CY2013. Costs for Medicaid covered births are increasing annually while the number of covered births is decreasing for the same period (CY2011-CY2013). Data for CY2011-CY2012 use certified Vital Records, CY2013 uses uncertified data. (Appendix II, ***Medicaid Birth Costs by Outcome CY2011–CY2013*** [Chart 42])

- The lowest average cost is for a normal birth at approximately $8,000 per birth (prenatal care, delivery, postpartum, and infant's first year of life), while the VLBW average cost is the highest at over $320,000 (CY2013). Among all birth outcomes, VLBW births show the greatest increase in cost over time (CY2011 to CY2013). Realizing that the number of VLBW births decreased from CY2011 to CY2013, the data were investigated further to determine whether outliers were driving up costs. Annually, the number of VLBW births with costs of over $500,000 increased from 27 births equaling $18.2M in cost (CY2011), to 30 births accounting for $19.3M in costs (CY2012), to 50 VLBW births in CY2013 costing $38.9M (data not shown). So, while overall VLBW births decreased the number of VLBW births over $500,000 increased as did the average cost for these outlier VLBW births. Data for CY2011-CY2012 use certified Vital Records, CY2013 uses uncertified data. (Appendix II, ***Medicaid Birth Average Costs by Outcome CY2011 –CY2013*** [Chart 43])

- LBW, other non-normal DRG and VLBW births account for a lower percentage of total births, but a higher percentage of total costs. VLBW births represent the lowest percentage of total births, at nearly 1.5 percent, but they account for nearly 25 percent of total birth costs (prenatal care, delivery, postpartum, and infant's first year of life). Conversely, approximately one-half of all births are normal outcome and account for only one-fifth of total costs. Data for CY2011-CY2012 use certified Vital Records, CY2013 uses uncertified data. (Appendix II, ***Percentage of Medicaid Births and Costs by Outcome CY2011-CY2013*** [Chart 44])

In Summary: Quality Improvement for Perinatal Health Care

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 over half of all births and a staggering 90 percent of teen births in Illinois each year, the imperative for action and the State's interests are not debatable.

Even though overall birth numbers are declining, too many births to Medicaid enrollees are "unplanned" or unintended. While the data on the length of time between births suggest we may be seeing some improvement, 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 (<1,500 grams at birth). Although small in numbers (<2% of all births) 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 two 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. The point: VLBW is a significant and costly matter.

There has been significant slippage in the percentage of births preceded by adequate prenatal care. There also is a decrease in the receipt of timely prenatal care (generally the first trimester). Timeliness of post-partum care also needs to improve, as significant decline has been noted in recent years.

The percentage of Medicaid enrolled birthing women who are subject to abuse during pregnancy is 72 percent higher than for the general delivering population. 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 which is a contributing factor to low birth weight. Postpartum depression is higher among the Medicaid population, and should continue to be a focus of concern.

Chlamydia screening rates among 16-24 year old women on Medicaid also have shown some decline. 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. While the human papillomavirus (HPV) vaccination rate is increasing among female adolescents enrolled in Medicaid, the rate is well below 20 percent indicating a need to focus on increasing vaccination.

The percentage of women who deliver under Medicaid and receive family planning at six months post-delivery significantly declined from CY2011 to CY2012. It is troubling that women who deliver a VLBW birth, which often comes with subsequent long-term health consequences for the infant, are the least likely to receive family planning services within six months post-delivery compared to women of all other birth outcome types. VLBW births also are highly correlated with a subsequent VLBW birth. Through provision of family planning subsequent unplanned pregnancies can be avoided and birth outcomes can be improved through contraception utilization which allows for greater birth intervals between pregnancies.

Perhaps the greatest avenue for improvement rests in addressing health disparities, whether they are based on socio-economic factors, geography or race. 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 40 percent decline in the African-American infant mortality rate in Illinois over the past 23 years, the rate has remained 2 ½ times that of Whites throughout this entire period.

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

- Using data to drive quality improvement – measurement required for federal and state mandated purposes and ad hoc investigation of data to delve into drivers of performance.
- Collaborating with MCOs to improve care through provision of evidence-based practices, promoting access to prenatal care, behavioral health and contraceptive services.
- Using quality improvement science to use data, evidence-based practices, policy and program initiatives to drive quality improvement and provision of healthcare.
- Collaborating with sister state agencies to coordinate, not duplicate, care delivery to women at risk for a poor birth outcome and providing cross agency data exchanges for evaluating program outcomes.
- Through early identification of high-risk populations to address those with urgent needs for care.
- Providing data to MCOs via the Care Coordination Claims Data (CCCD) files to identify high-risk pregnant women and to risk stratify their general covered population.
- Continuing robust efforts to improve contraceptive uptake (e.g., Contraceptive Equity Summit, Family Planning policy, IFPAP), and enhancing contraceptive policy development (e.g., LARC, immediate post-partum LARC) to improve inter-pregnancy spacing, improve poor birth outcomes, and decrease unintended pregnancy rates.
- Assessing HFS policy to reflect evidence based practice and research supporting earlier and more frequent post-partum visits.
- Focusing on disseminating quality and best practices through Quality Notices.
- Collaborating with federal agencies on innovations in healthcare policy (e.g., LARC, ILPQC, CoIIN) and in the development of new measures.

As HFS has become 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 places 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 incentive to focus on providing quality care to women before, during and between pregnancies.

HFS also is working with the MCOs to improve the scope of contraceptive care provided. HFS has ascertained that each Plan has family planning protocols, which includes a comprehensive list of FDA-approved contraceptives on their formulary. HFS amended 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 helps assure that individuals of reproductive age have access to all types of birth control methods, including 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.

Another initiative showing great promise was the establishment of a statewide perinatal quality collaborative, the ILPQC. Initially funded by the HFS CHIPRA Quality Demonstration Grant Project and patterned after models successfully implemented in other states, including Ohio and Florida, the ILPQC serves as an independent, voluntary statewide collaborative to bring together the various perinatal stakeholders (maternal/fetal medicine specialists, obstetricians, 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 have tackled such issues as reducing early, elective deliveries and improving nutrition for VLBW babies. Current projects include an initiative to improve the accuracy of birth certificate information, reduce maternal morbidity associated with maternal hypertension, and adopt evidence base practices during the first hour after birth, The Golden Hour, to improve outcomes of VLBW infants. The group uses data collection, analysis and reporting, education and sharing of best-practices, and peer interaction to drive quality improvement statewide and within the Medicaid population. More than 100 birthing hospitals are engaged in quality improvement activities with ILPQC.

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 Chicago Health Information Technology Regional Extension Center (CHITREC) 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 and developed 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 (BBO) 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 obesity, mental health and substance abuse. 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.

To reiterate, HFS, our sister state agencies, community-based organizations, and others are contributing to improving the system of care to low-income women. As evidenced by this report, there is still much work to be done. We anticipate that through current endeavors and the prioritization of improving birth outcomes, initiatives yet to be implemented, and on-going collaboration to implement evidence-based practice there will be a positive effect on the lives of women, children and families in Illinois.

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, primarily improvements in the identification of actual deliveries based on claims data, and measure programming updates conducted to conform to revised measure specifications, (e.g., HEDIS®). 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. There are no Infant mortality data since DPH Vital Records matched birth/death files are not available for CY2010 – CY2013. Although infant mortality data are not available, the classification hierarchy describes how attributes are analyzed, regardless of whether those attributes are populated with data. Using the available information LBW, VLBW, 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 0-1,500 grams, then Birth Outcome is set to VLBW
- Else if birth weight is between 1,501-2,500 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. Beginning July 2014, APR-DRGs are used as a part of hospital rate reform. In the future, deliveries will be identified using APR-DRG codes 540-542, 560. 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. 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: Deliveries occurring 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.

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 sometimes 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" often 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. An 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 for CY2013 are provisional since CY2011 and CY2012 data are certified, but CY2013 are not certified by DPH. Matched Vital Records birth/death files to identify infant mortality are not available for CY2011 – CY2013.

Appendix II: Charts and Tables

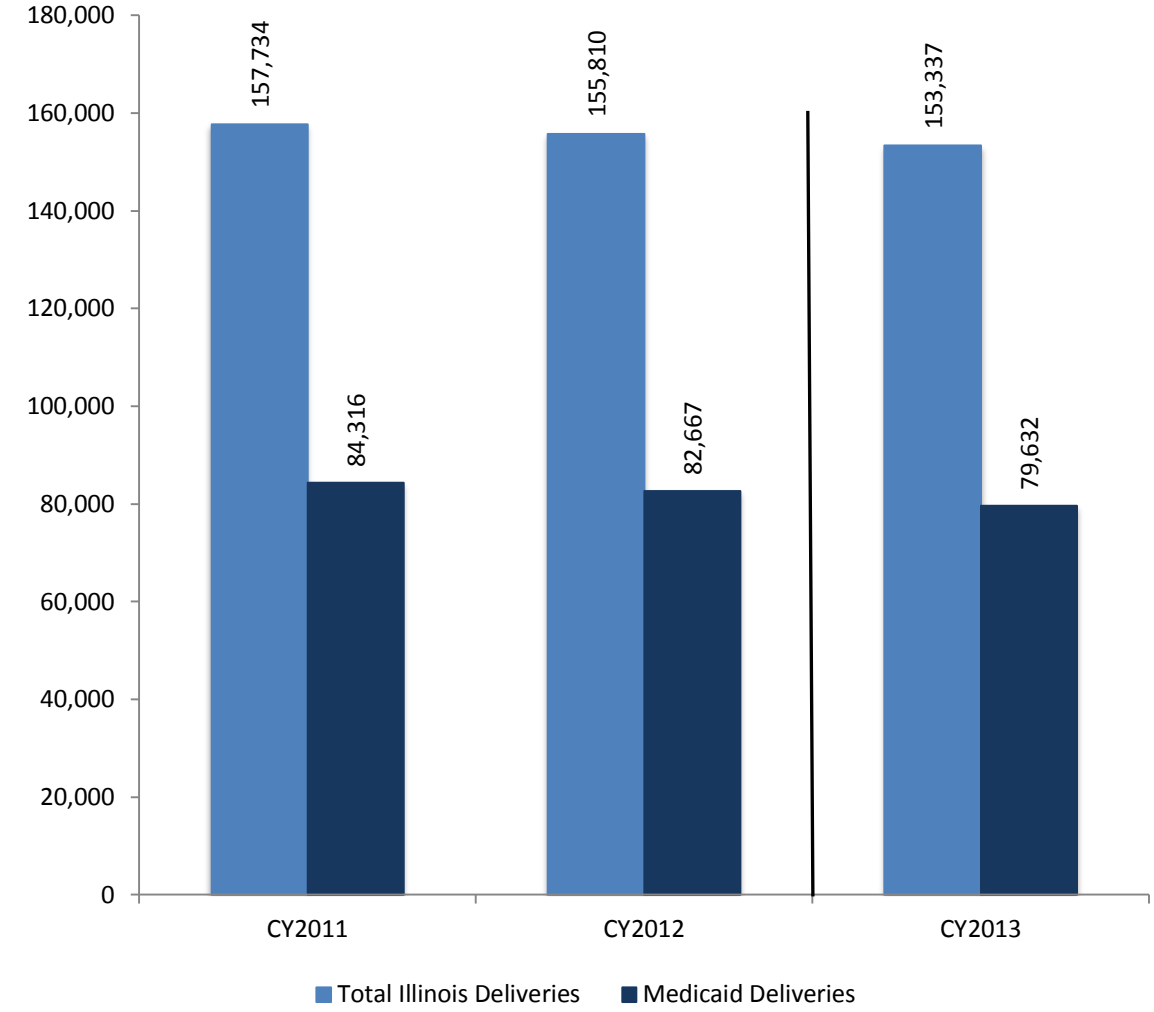


Chart 1: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Covered deliveries are those where the recipient had full benefits on date of delivery.

Percentage of Illinois Deliveries Covered by Medicaid CY2011 - CY2013

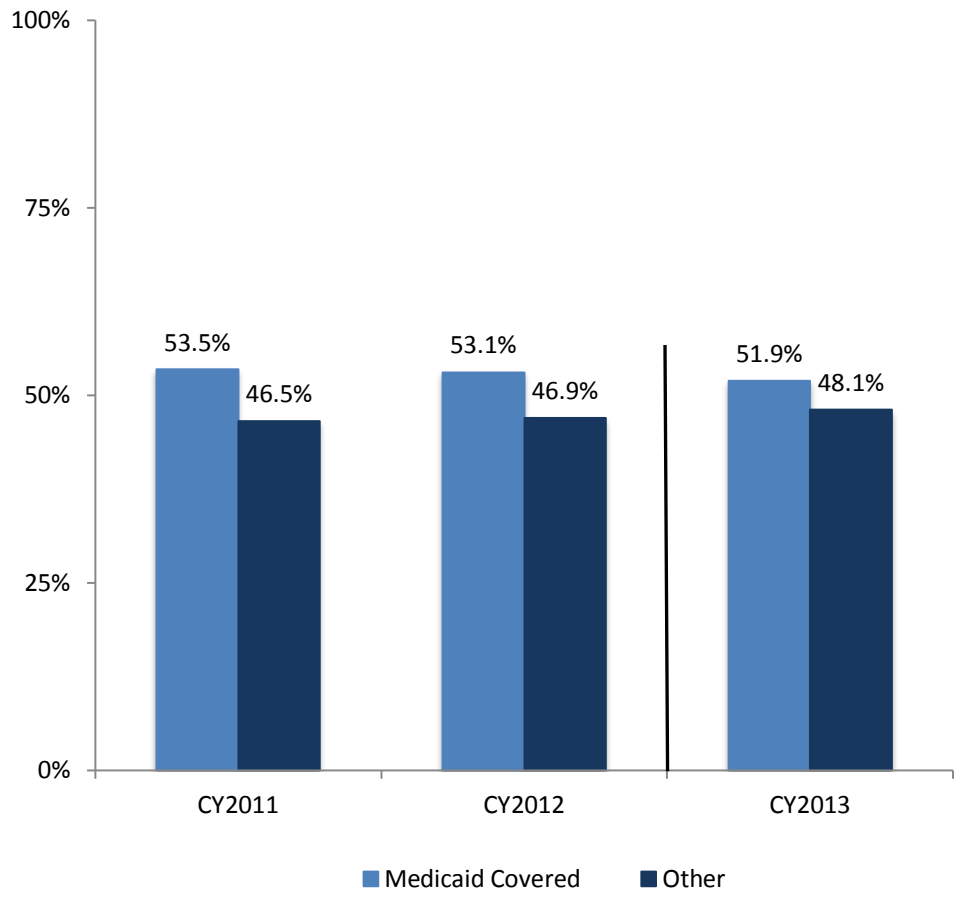


Chart 2: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Covered deliveries are those where the recipient had full benefits on date of delivery.

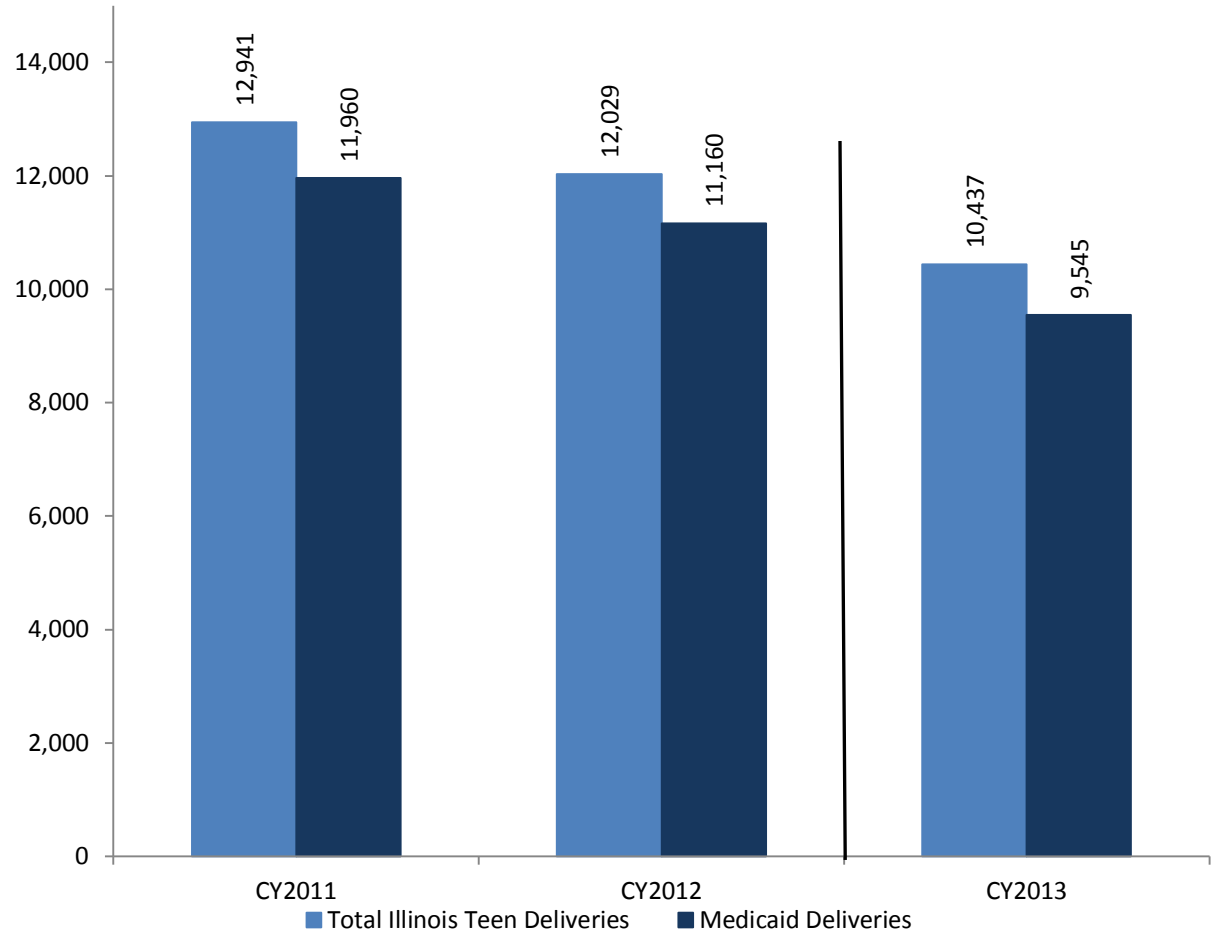


Chart 3: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Covered deliveries are those where the recipient had full benefits on date of delivery.

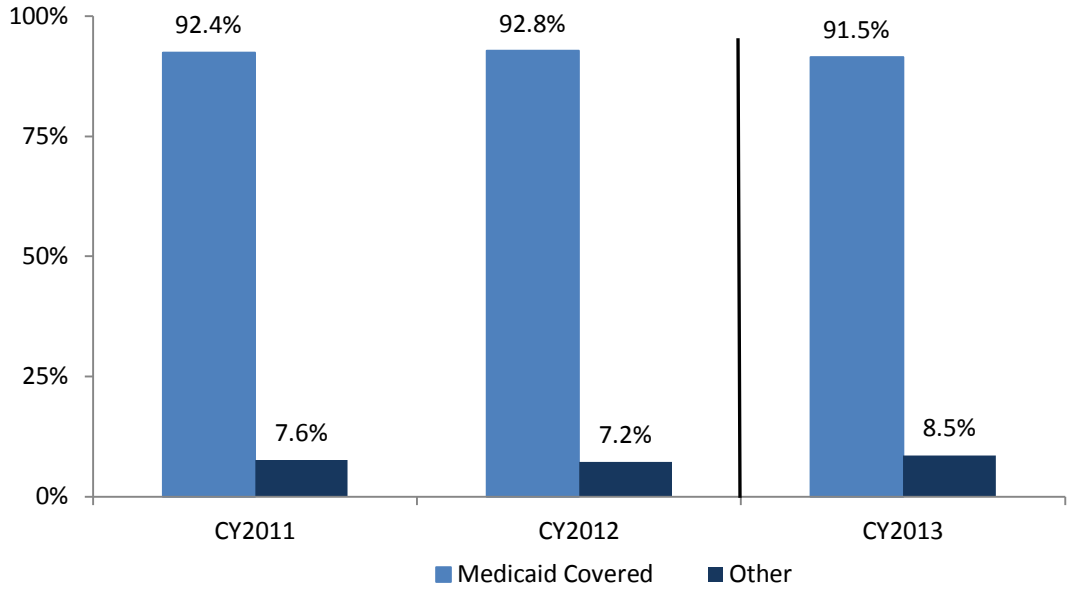


Chart 4: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Covered deliveries are those where the recipient had full benefits on date of delivery.

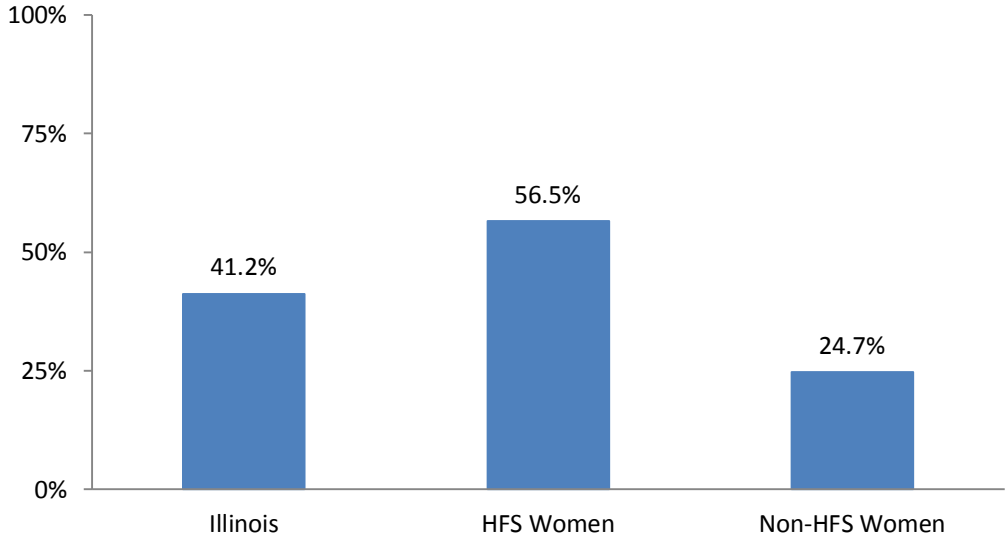


Chart 5: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, 2012 Pregnancy Risk Assesment Monitoring System (PRAMS). PRAMS data for CY2012 collected for 9 months, April to December. Data are weighted to represent 12 months.

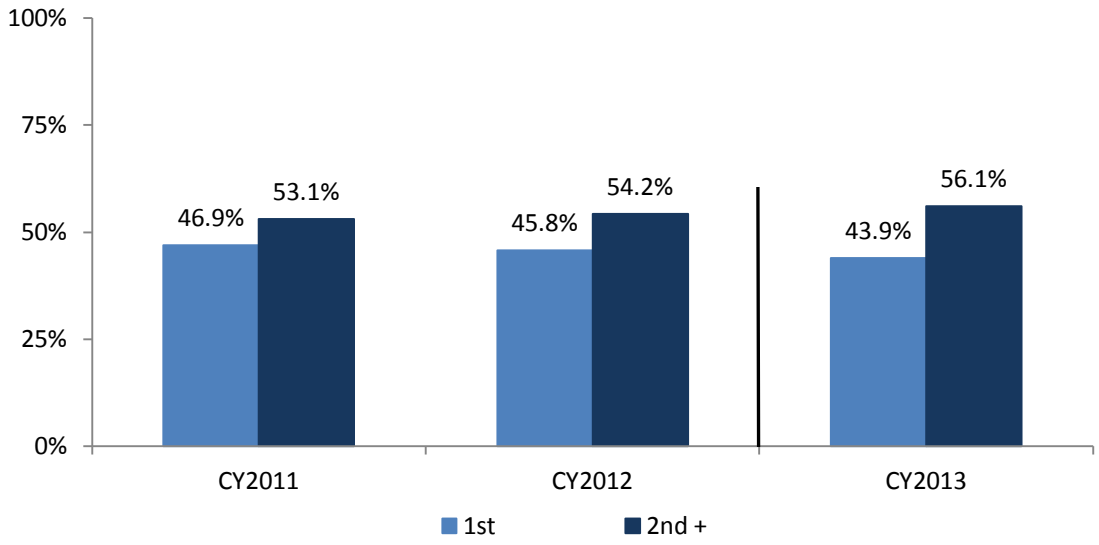


Chart 6: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013.

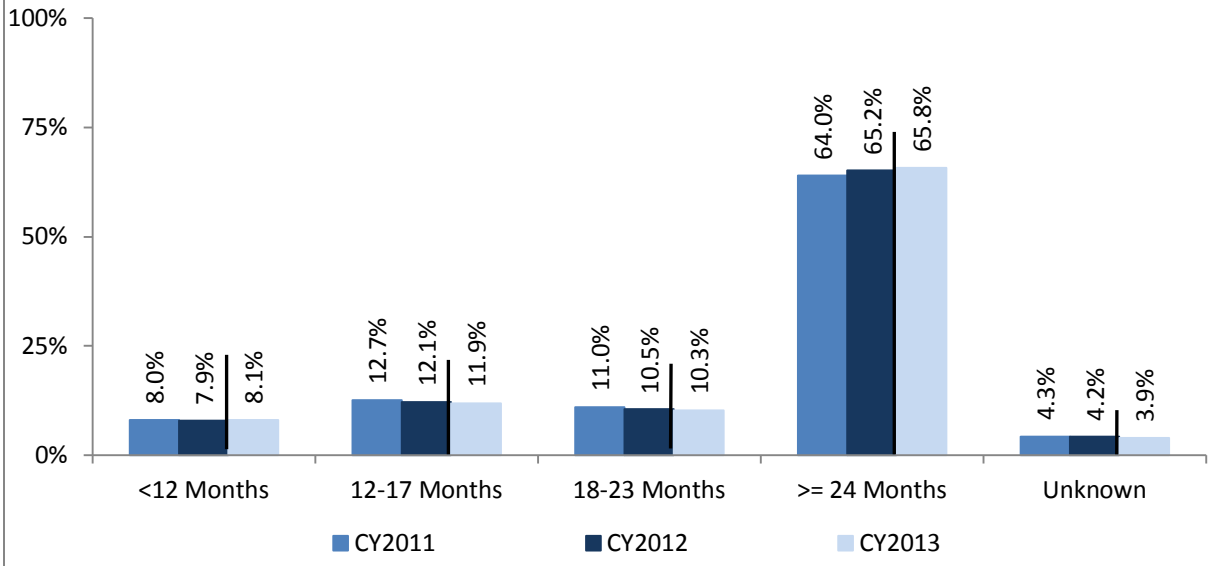


Chart 7: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013.

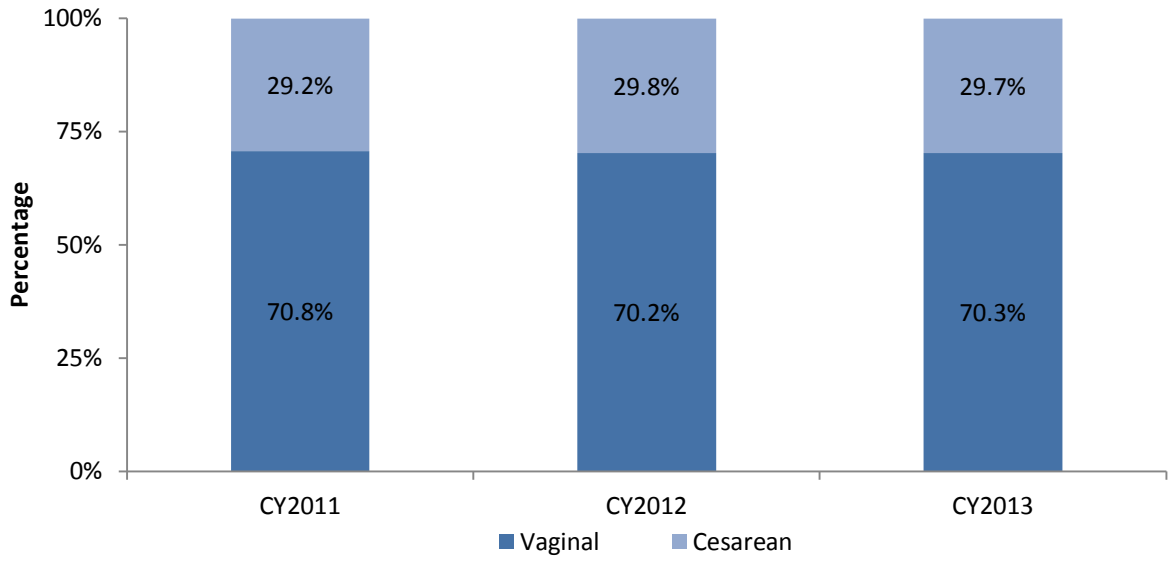


Chart 8: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Denominator excludes unknown delivery type.

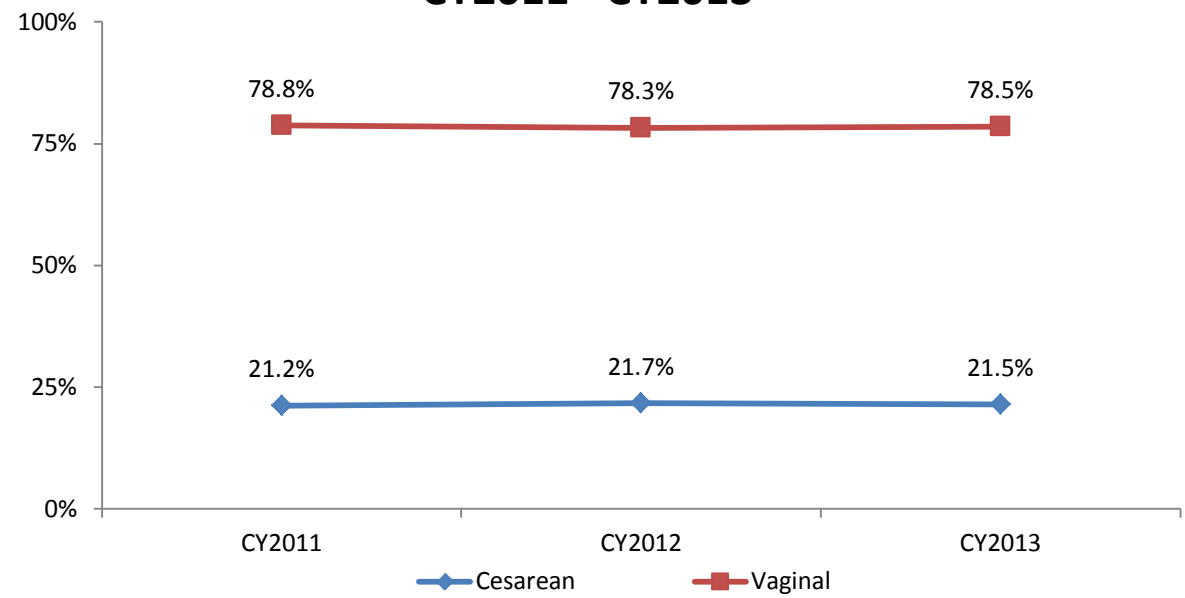


Chart 9: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Denominator excludes unknown delivery type.

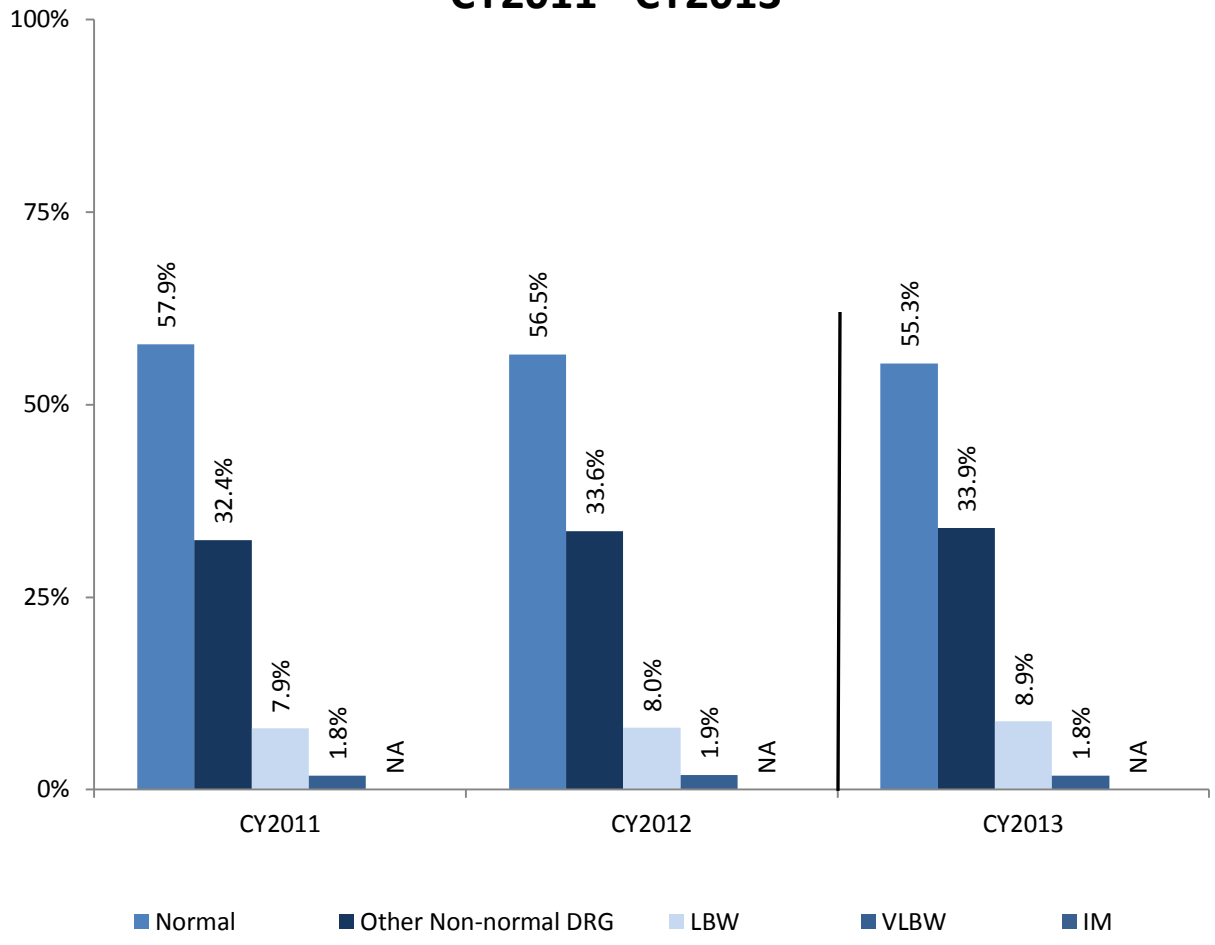
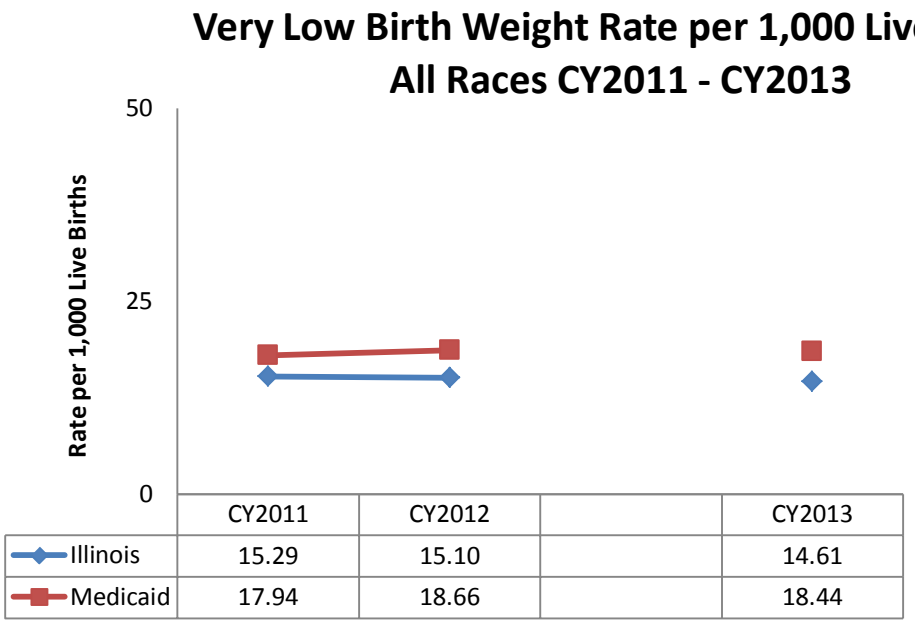


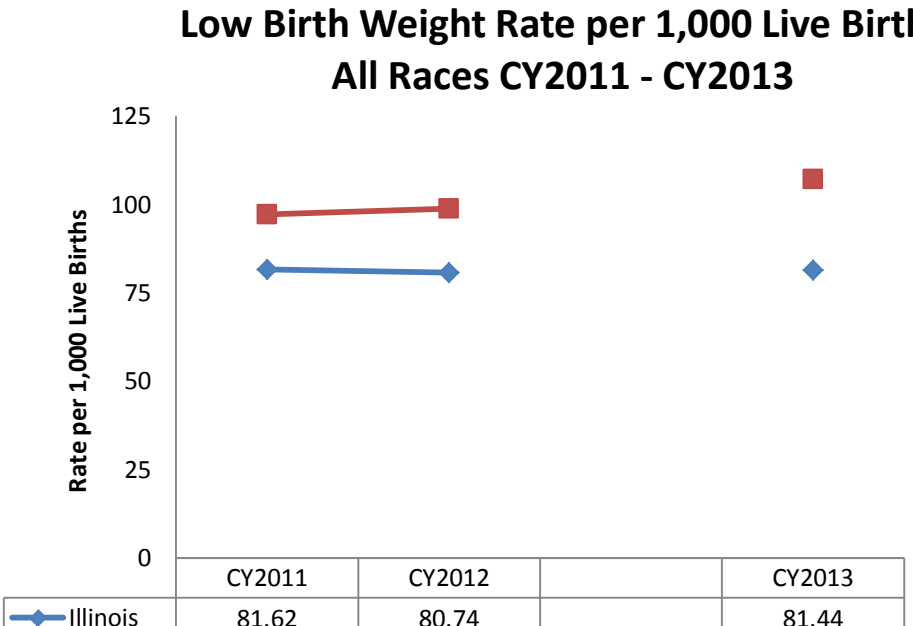
Chart 10: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.

NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.



	CY2011	CY2012		CY2013
Illinois	15.29	15.10		14.61
Medicaid	17.94	18.66		18.44

Chart 11: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The gap represents that the CY2011 - CY2012 data are not comparable to CY2013. Denominator excludes unknown birth outcome.



	CY2011	CY2012		CY2013
Illinois	81.62	80.74		81.44
Medicaid	97.25	98.71		107.10

Chart 12: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The gap represents that the CY2011 - CY2012 data are not comparable to CY2013. LBW is inclusive of VLBW. Denominator excludes unknown birth outcome.

Illinois Infant Mortality Rate by Race, CY1990 - CY2012			
Year	White	African American Rate	Overall
2012	5.1	13.2	6.5
2011	5.2	13.6	6.6
2010	5.3	13.6	6.8
2009	5.4	14.0	6.9
2008	5.8	13.9	7.2
2007	5.3	13.5	6.6
2006	6.1	14.4	7.4
2005	5.7	15.4	7.2
2004	5.9	14.8	7.3
2003	6.1	15.6	7.6
2002	5.5*	15.7	7.2
2001	5.9	14.9	7.5
2000	6.5	16.3	8.3
1999	6.2	17.4	8.3
1998	6.3	16.8	8.2
1997	6.2	16.5	8.2
1996	6.3	17.1	8.4
1995	7.2	18.2	9.3
1994	6.7	17.9	9.0
1993	7.1	18.8	9.6
1992	7.4	19.5	10.0
1991	7.9	21.1	10.7
1990	7.6	22.1	10.7
Rates are per 1,000 live births			
* Corrected rate			

Chart 13: Illinois Center for Health Statistics, Illinois Department of Public Health, Vital Statistics, Illinois Mortality Statistics

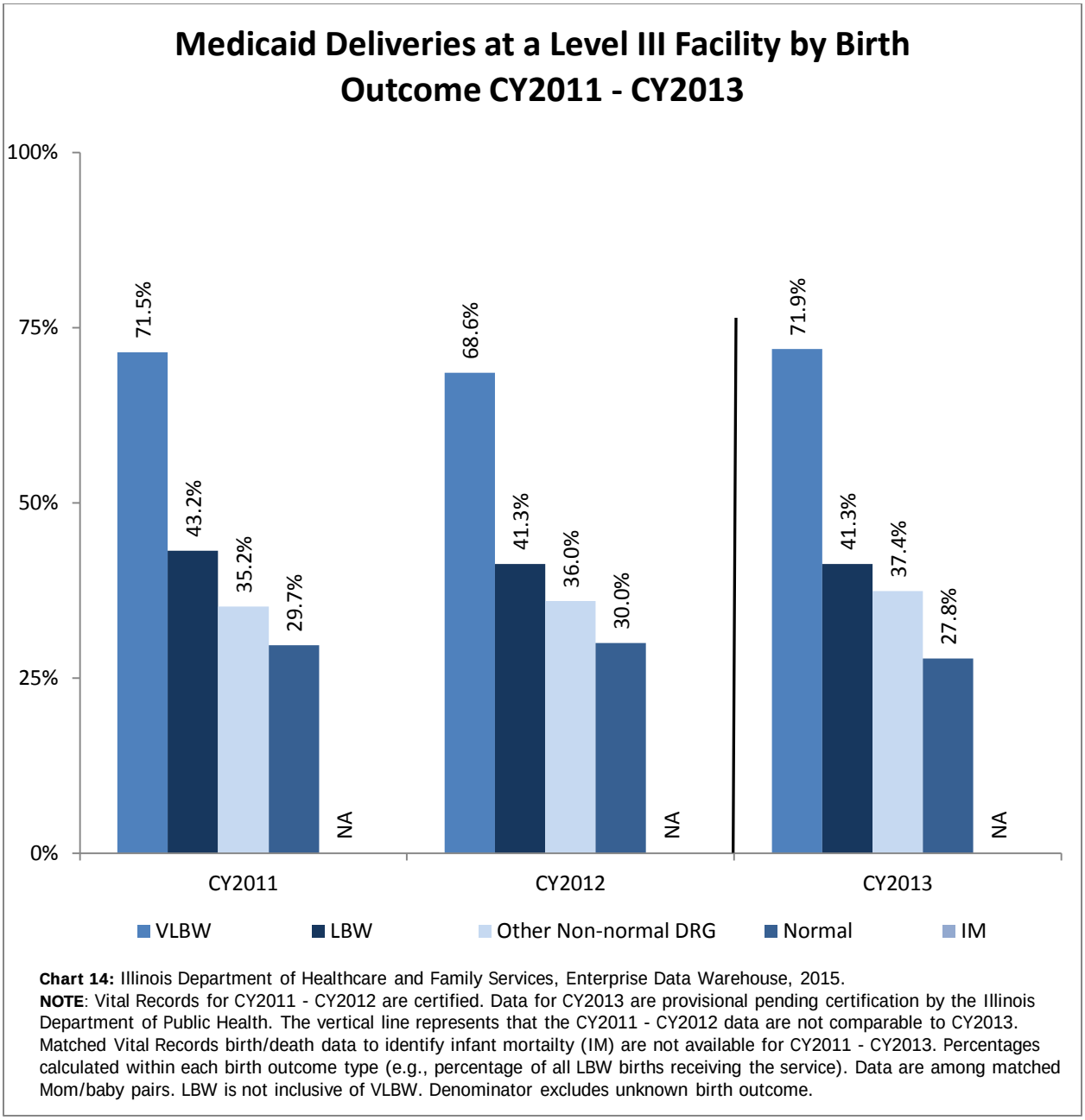


Chart 14: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Percentages calculated within each birth outcome type (e.g., percentage of all LBW births receiving the service). 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 CY2011 - CY2013

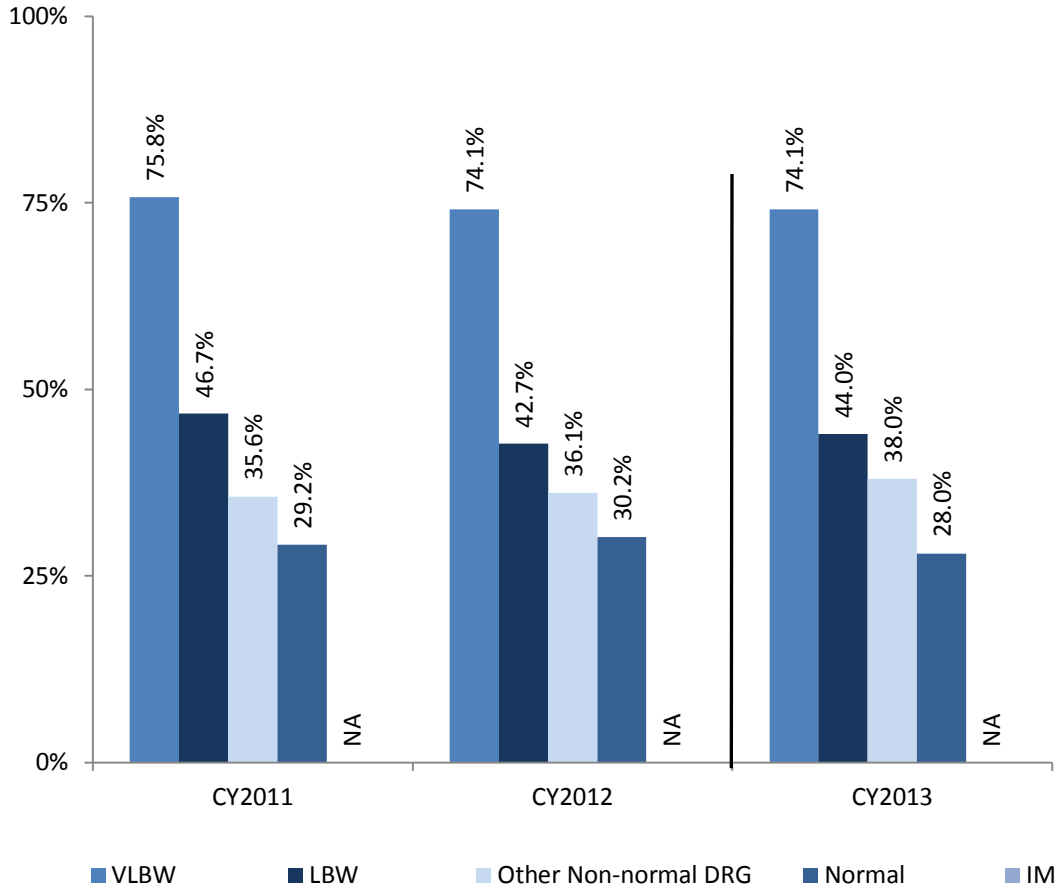


Chart 15: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Percentages calculated within each birth outcome type (e.g., percentage of all LBW births receiving the service). Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

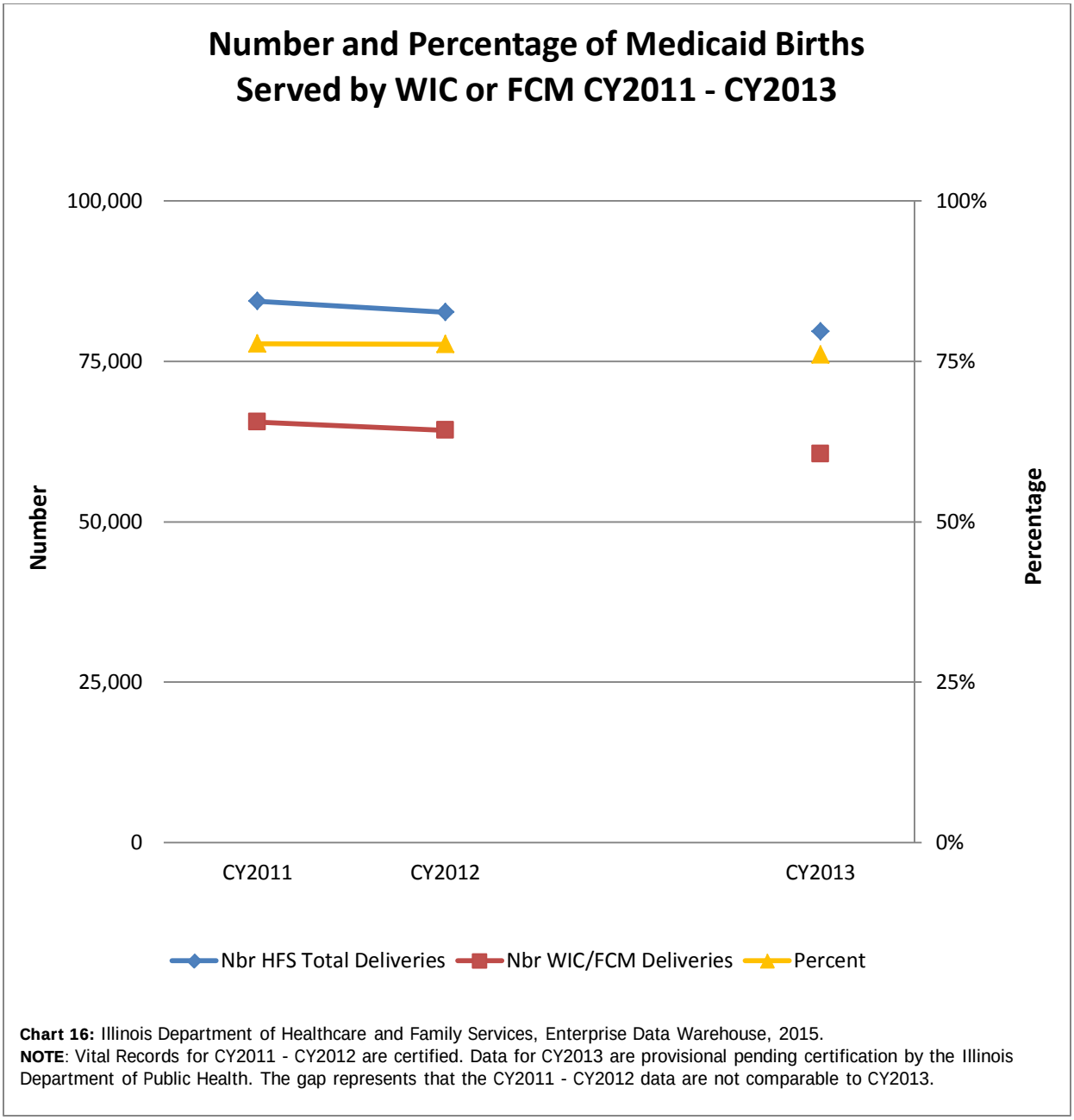


Chart 16: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The gap represents that the CY2011 - CY2012 data are not comparable to CY2013.

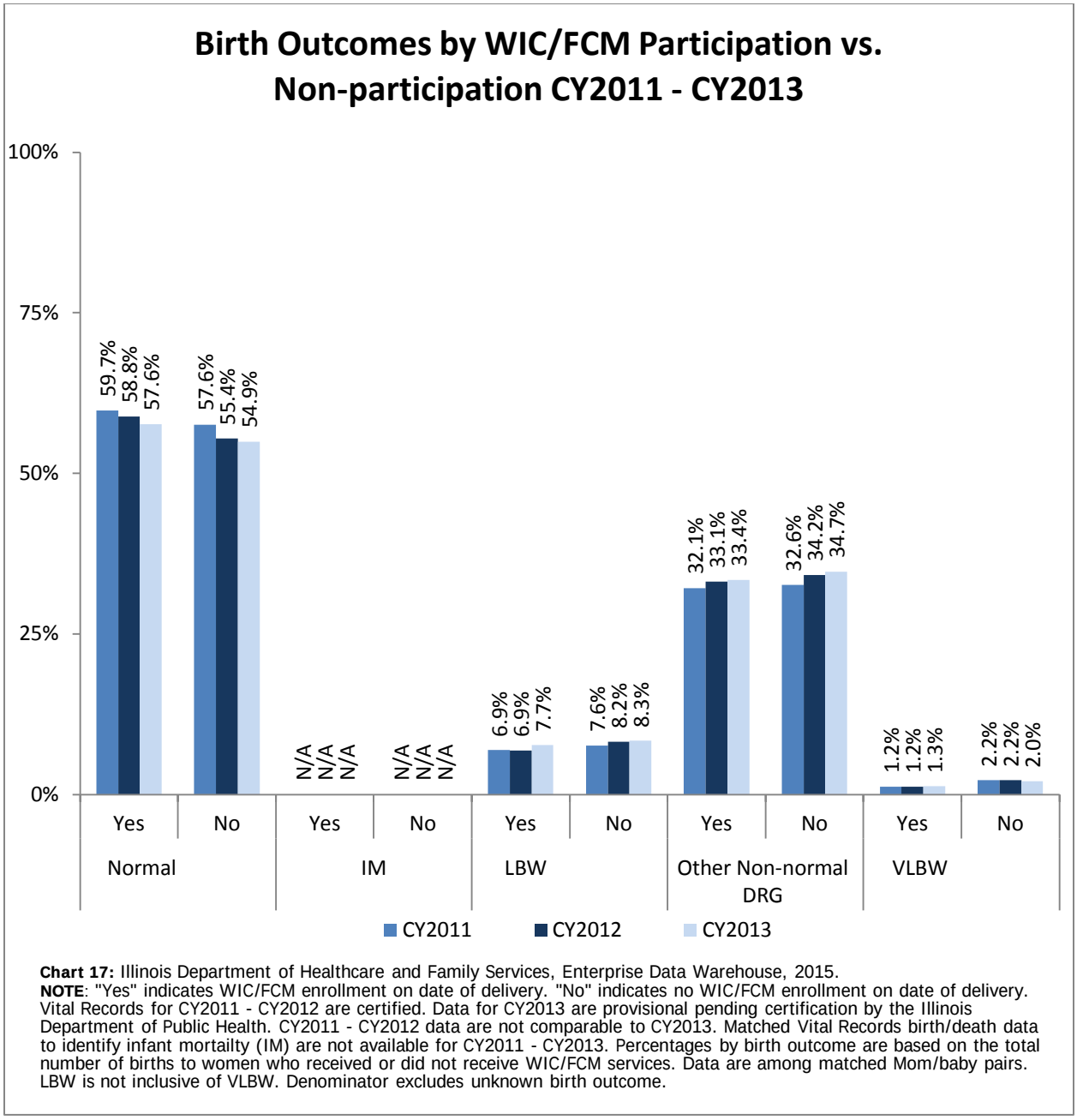


Chart 17: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: "Yes" indicates WIC/FCM enrollment on date of delivery. "No" indicates no WIC/FCM enrollment on date of delivery. Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Percentages by birth outcome are based on the total number of births to women who received or did not receive WIC/FCM services. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Denominator excludes unknown birth outcome.

Average Annual Delivery Cost and Birth Outcome Costs among WIC/FCM Participants vs. Non-participants CY2011 - CY2013

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

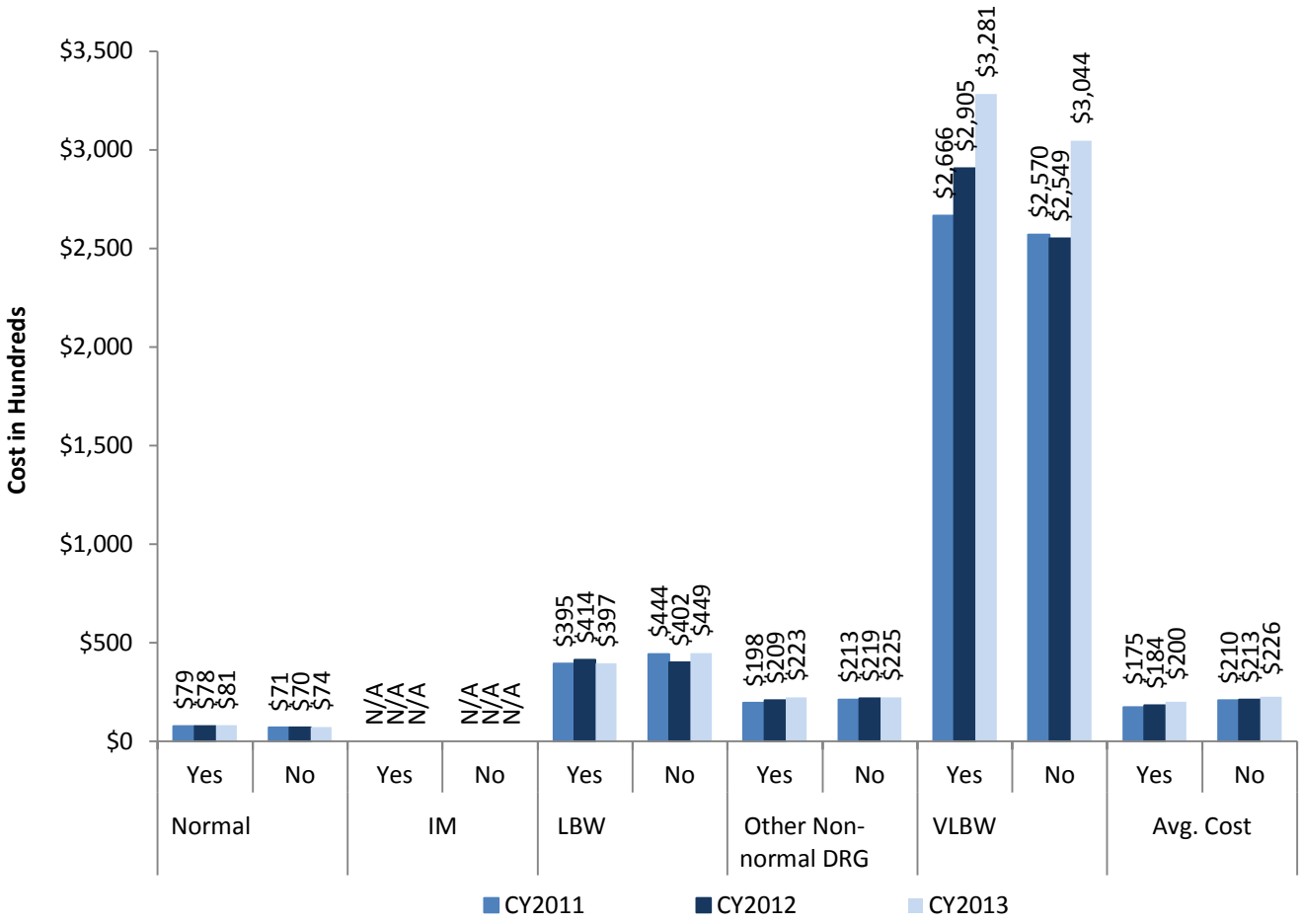


Chart 18: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: "Yes" indicates WIC/FCM enrollment on date of delivery. "No" indicates no WIC/FCM enrollment on date of delivery. Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. CY2011-CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW. Total average costs exclude unknown birth outcome.

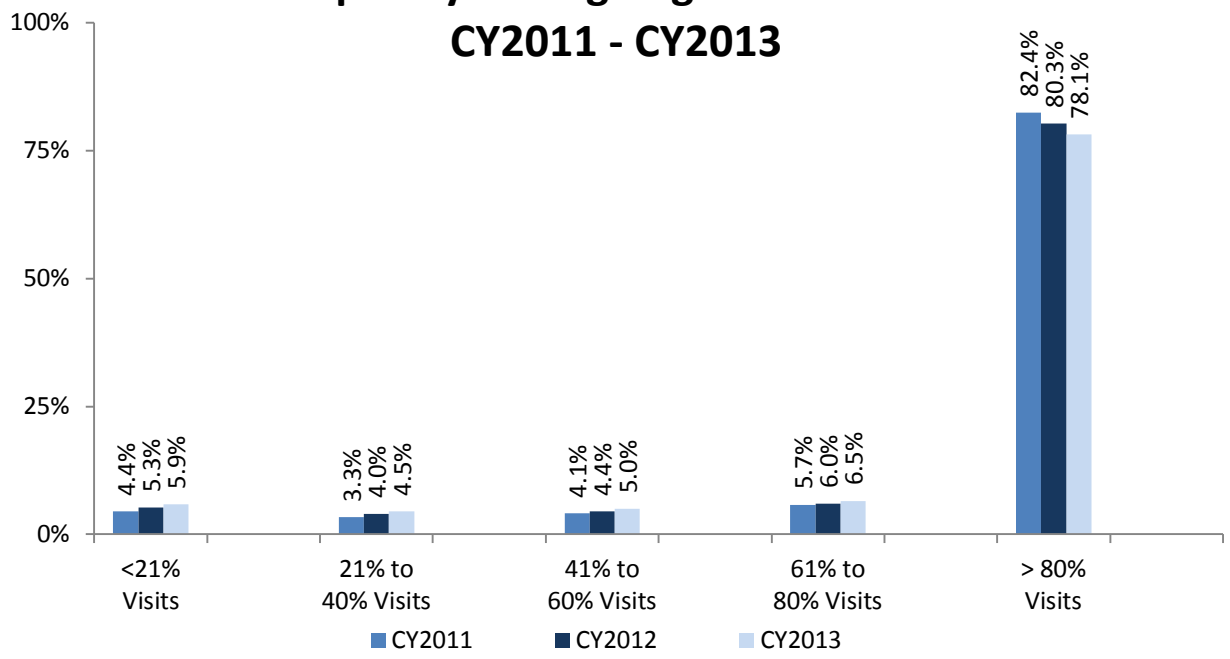


Chart 19: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on HEDIS® specifications.
NOTE: More than 80 percent of visits is considered adequate prenatal care.

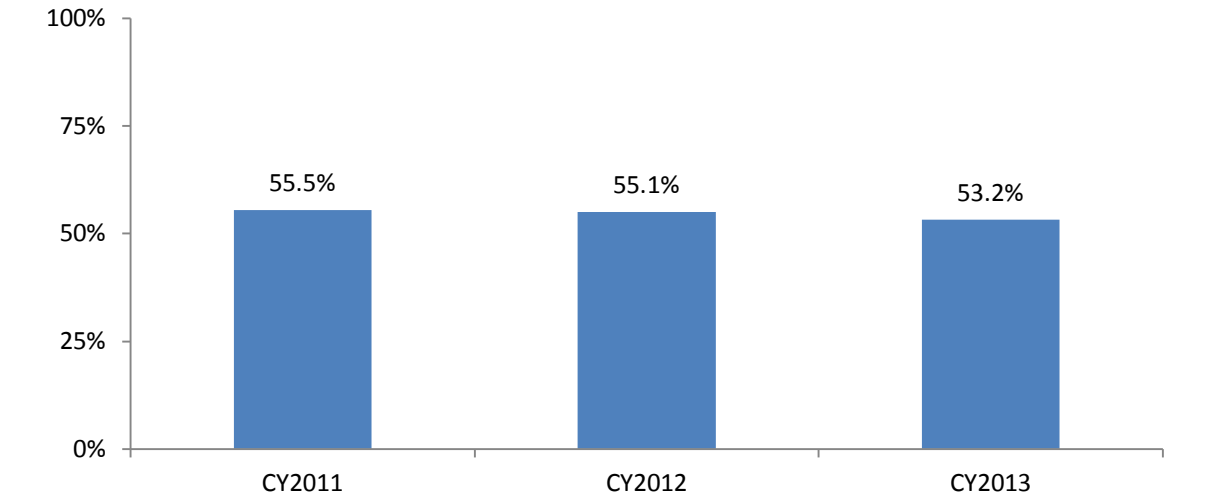


Chart 20: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on HEDIS® specifications. Timely prenatal care defined as a visit in the first trimester or within 42 days of enrollment.

Medicaid Prenatal Services at a Level III Facility by Birth Outcome
CY2011 - CY2013

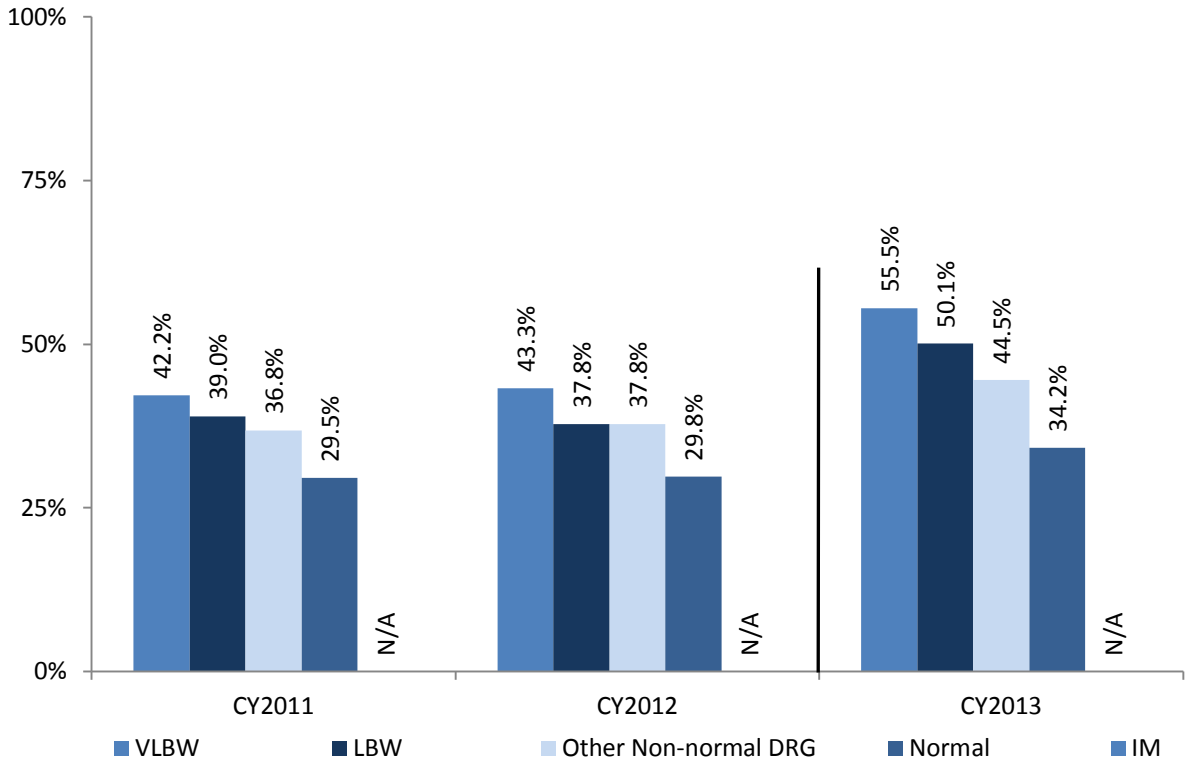


Chart 21: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Percentages calculated within each birth outcome type (e.g., percentage of all LBW births receiving the service). Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW.

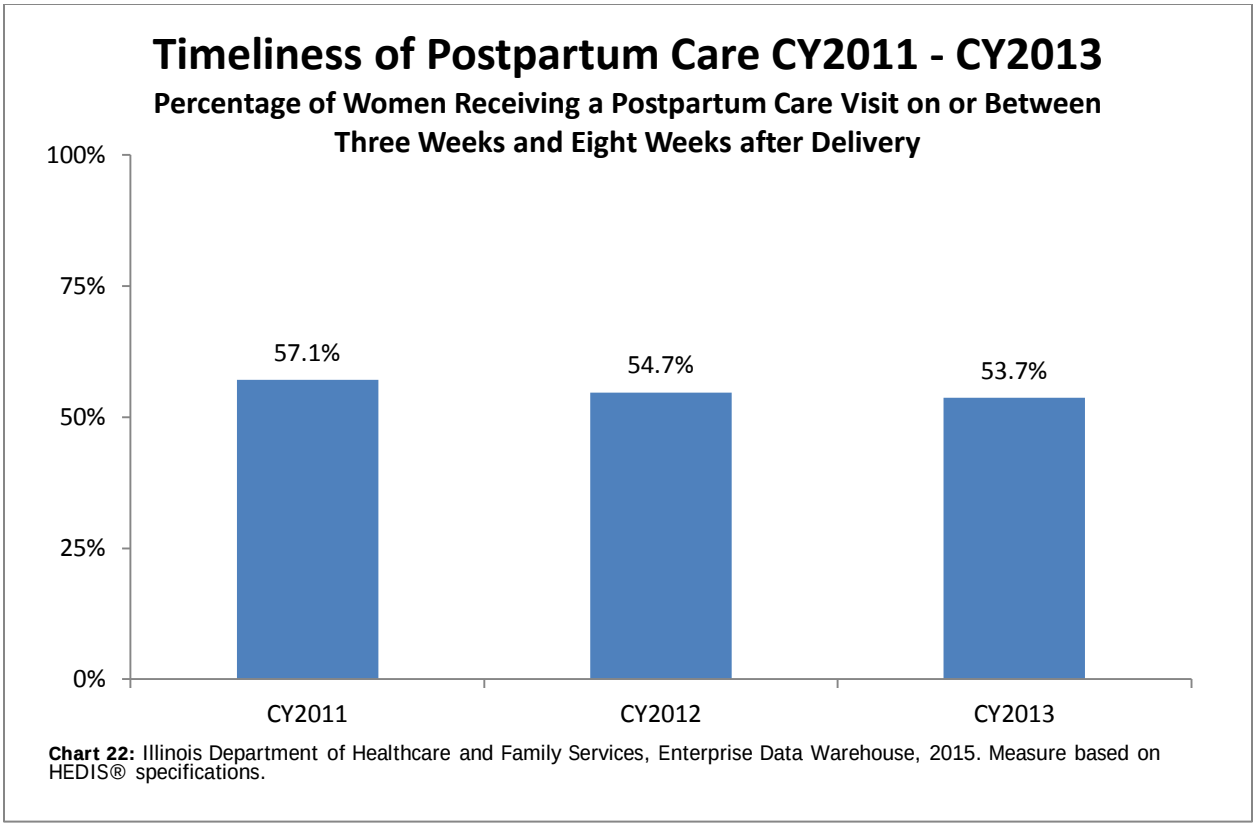


Chart 22: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on HEDIS® specifications.

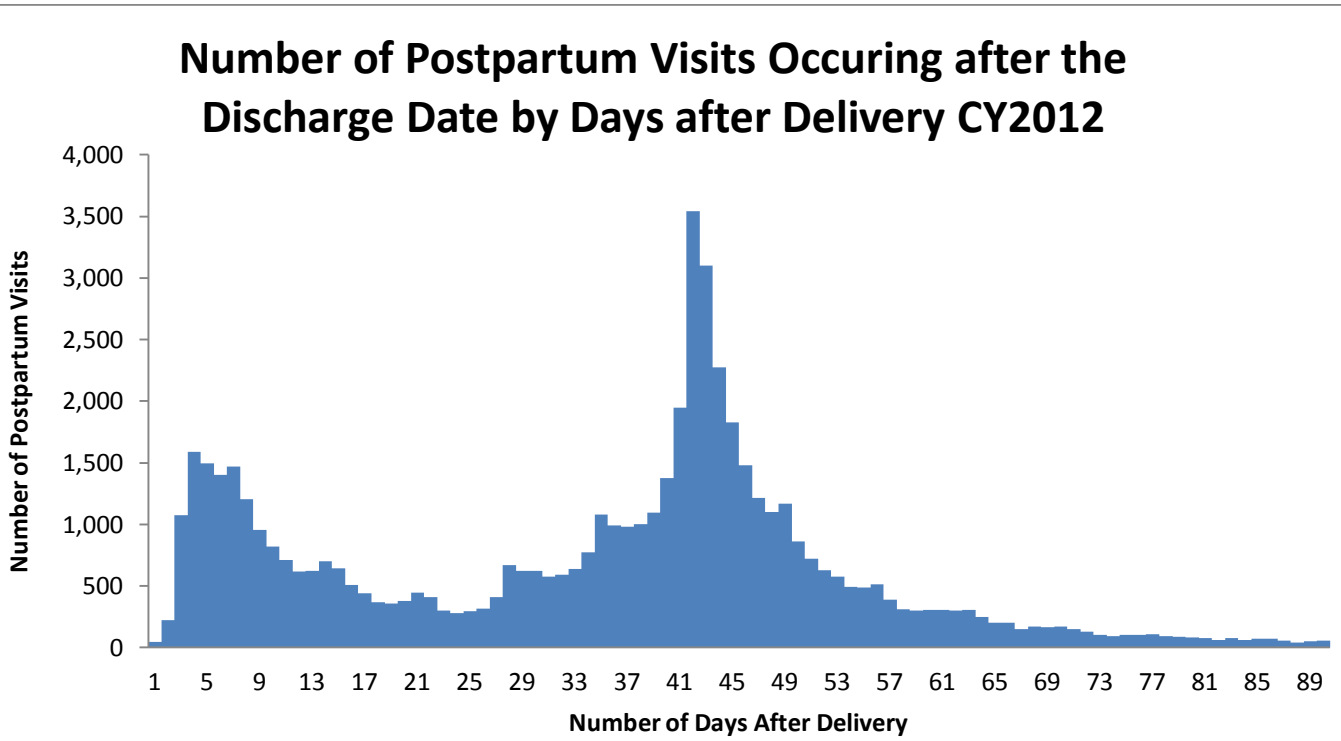


Chart 23: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on modifying HEDIS® specifications related to time of postpartum visit.

Physical Abuse: Illinois PRAMS CY2012

Abuse by Husband/Partner Before Pregnancy	Percentage	CI
Illinois	3.60%	2.4-5.2
Medicaid Enrolled Women	6.20%	4.1-9.3
Non-Medicaid Enrolled Women	---	---
Abuse by Husband/Partner During Pregnancy		
Illinois	2.10%	1.3-3.2
Medicaid Enrolled Women	3.60%	2.2-5.8
Non-Medicaid Enrolled Women	---	---

Chart 24: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, 2012 Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS data for CY2012 collected for 9 months, April to December. Data are weighted to represent 12 months. CI = Confidence Interval

Prevalence of Drinking Before and During Pregnancy: Illinois PRAMS CY2012

Women who drank 3 months before pregnancy	Percentage	CI
Illinois	58.3%	55.0-61.5
Medicaid Enrolled Women	45.5%	40.8-50.4
Non-Medicaid Enrolled Women	71.9%	67.8-75.8
Women who drank during last 3 months of pregnancy		
Illinois	7.2%	5.7-9.0
Medicaid Enrolled Women	4.6%	3.0-6.9
Non-Medicaid Enrolled Women	9.9%	7.6-12.9

Chart 25: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, 2012 Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS data for CY2012 collected for 9 months, April to December. Data are weighted to represent 12 months. CI = Confidence Interval

Prevalence of Smoking Before and During Pregnancy: Illinois PRAMS CY2012

Women who smoked 3 months before pregnancy	Percentage	CI
Illinois	20.70%	18.2-23.6
Medicaid Enrolled Women	29.20%	25.0-33.7
Non-Medicaid Enrolled Women	11.60%	9.1-14.8
Women who smoked during last 3 months of pregnancy		
Illinois	8.80%	7.1-11.0
Medicaid Enrolled Women	14.10%	11.1-17.8
Non-Medicaid Enrolled Women	3.20%	1.9-5.2

Chart 26: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, 2012 Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS data for CY2012 collected for 9 months, April to December. Data are weighted to represent 12 months. CI = Confidence Interval

Illinois Tobacco Quitline Calls for SFY2011 - SFY2014

	SFY2011	SFY2012	SFY2013	SFY2014
Total Callers	19,659	24,575	25,457	27,386
Self-reported as being pregnant	184	285	403	534
Self-reported as receiving WIC	292	307	428	568
Call attributable to HFS mailing	604	418	53	40
Female callers	12,451	15,130	15,811	16,333
Children in household under age 5	N/A	1,896	2,473	3,026

Chart 27: Illinois Department of Public Health, Tobacco Control Program

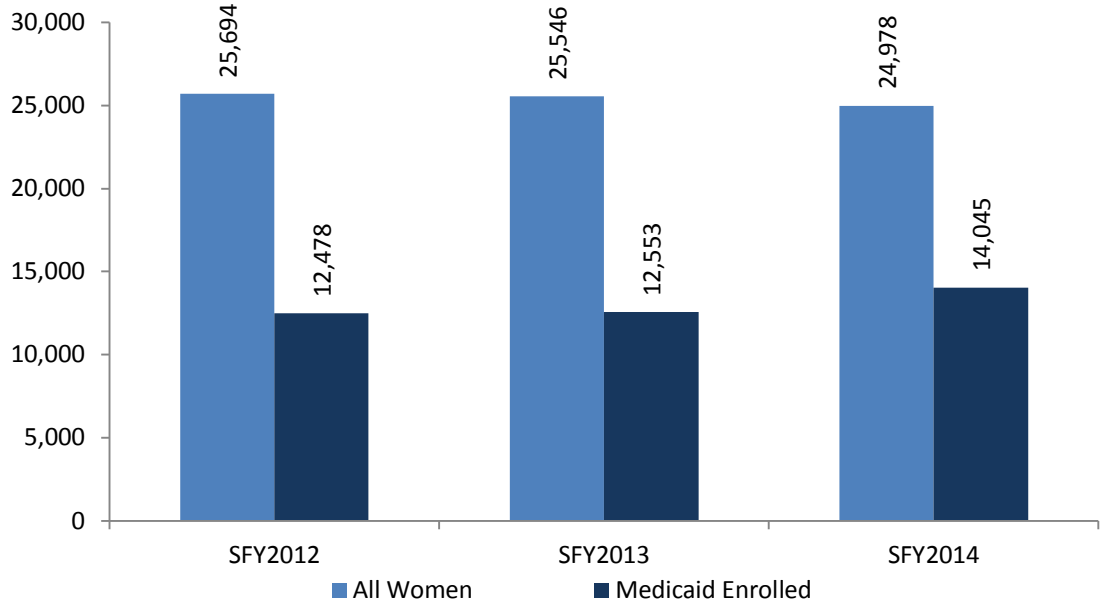


Chart 28: Illinois Department of Human Services, Office of Alcoholism and Substance Abuse (OASA), 2015.

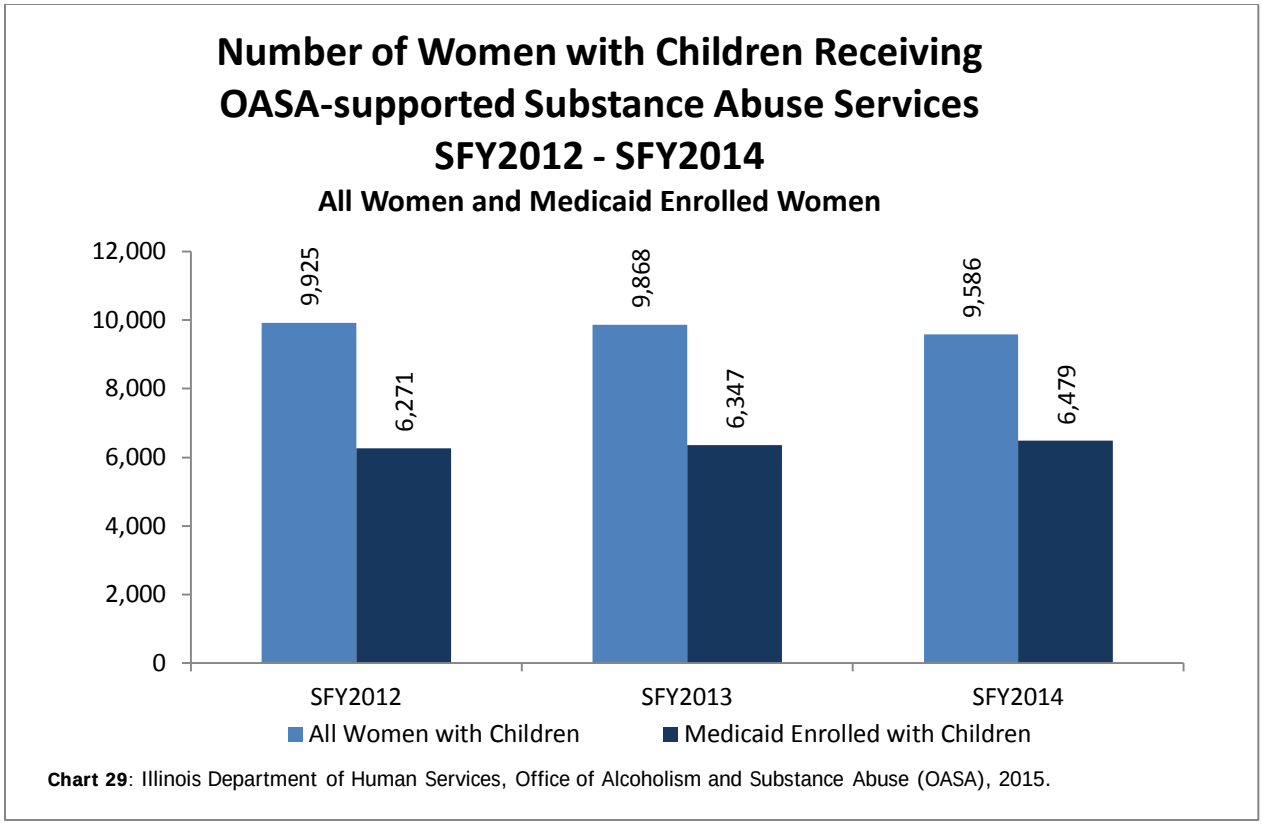


Chart 29: Illinois Department of Human Services, Office of Alcoholism and Substance Abuse (OASA), 2015.

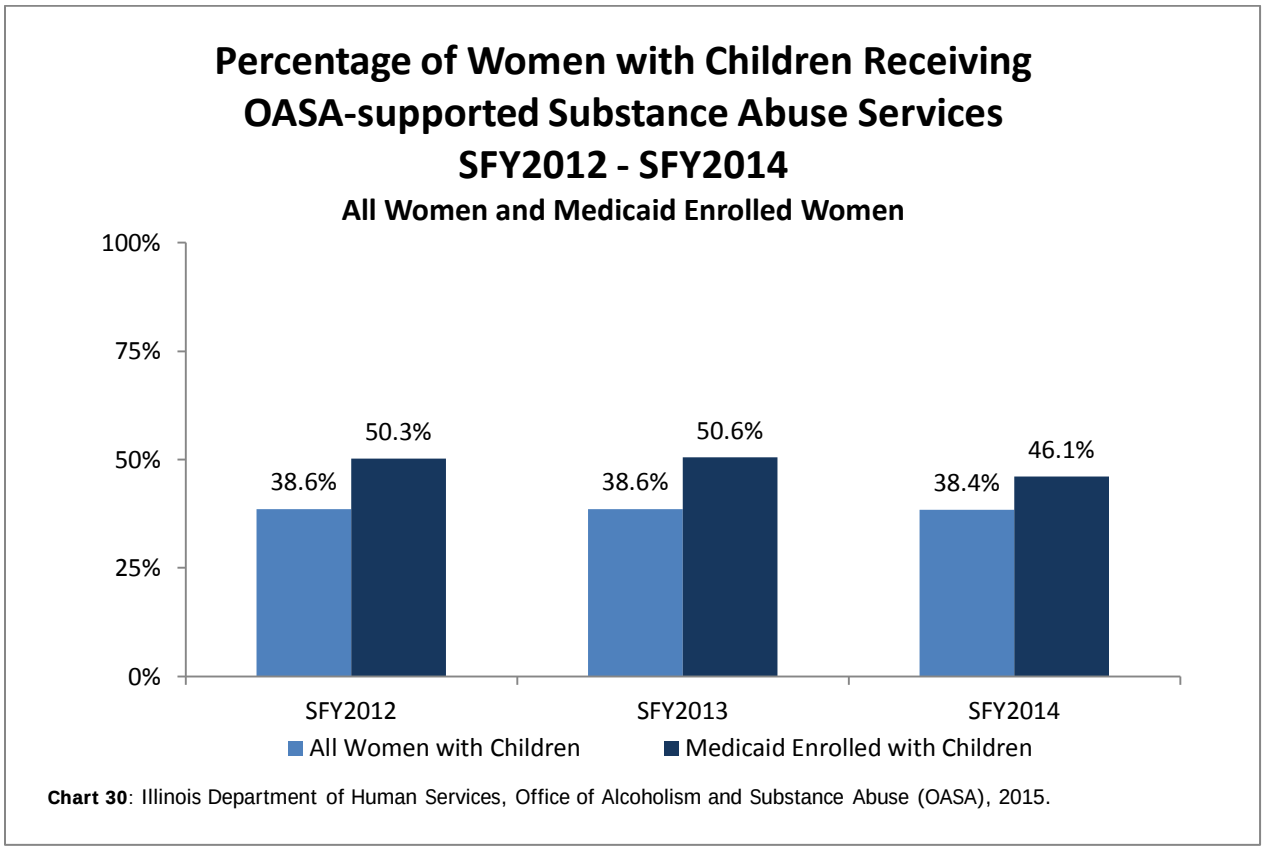


Chart 30: Illinois Department of Human Services, Office of Alcoholism and Substance Abuse (OASA), 2015.

Postpartum Depression Diagnosis: Illinois PRAMS CY2012

Women with a postpartum depression diagnosis	Percentage	CI
Illinois	10.40%	8.5-12.6
Medicaid Enrolled Women	14.40%	11.4-18.0
Non-Medicaid Enrolled Women	6.10%	4.3-8.7

Chart 31: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, 2012 Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS data for CY2012 collected for 9 months, April to December. Data are weighted to represent 12 months. CI = Confidence Interval

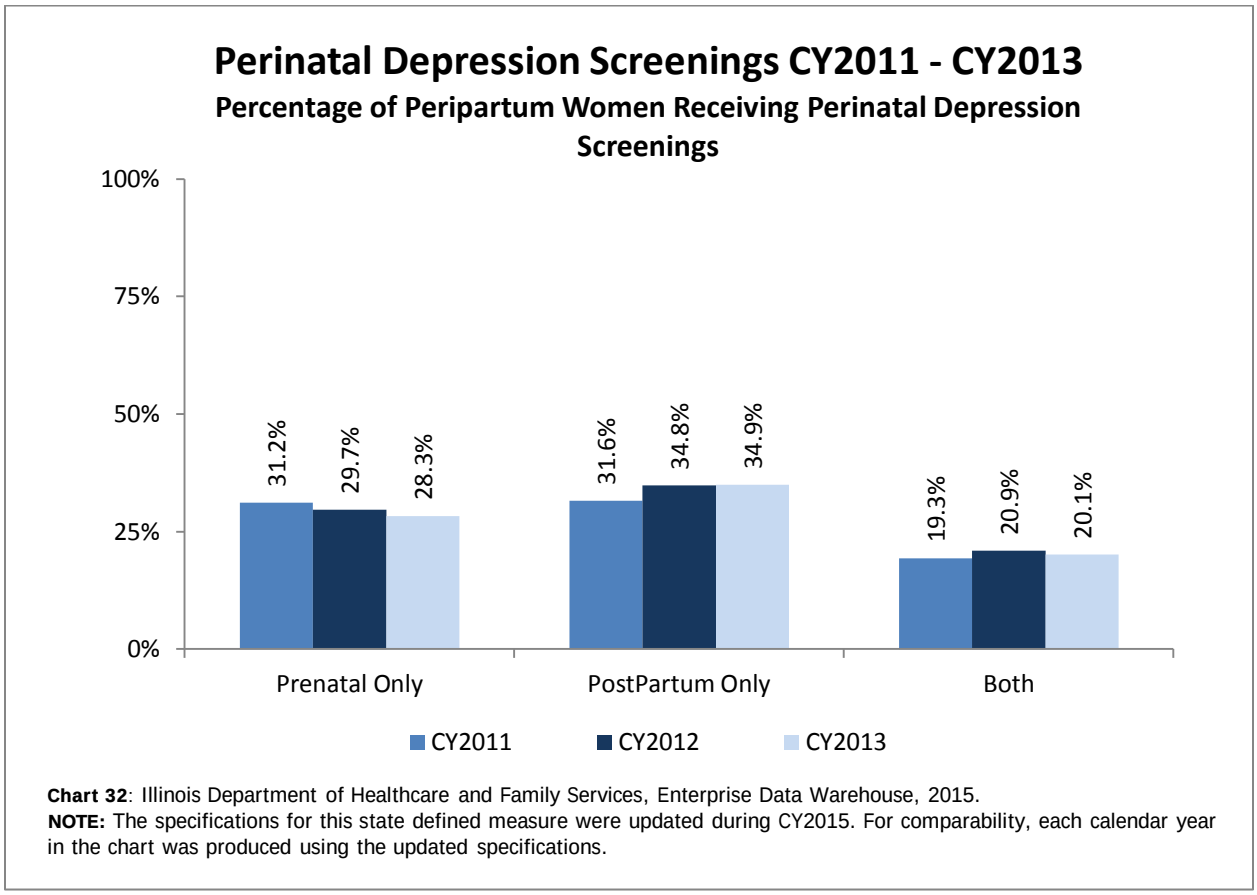


Chart 32: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: The specifications for this state defined measure were updated during CY2015. For comparability, each calendar year in the chart was produced using the updated specifications.

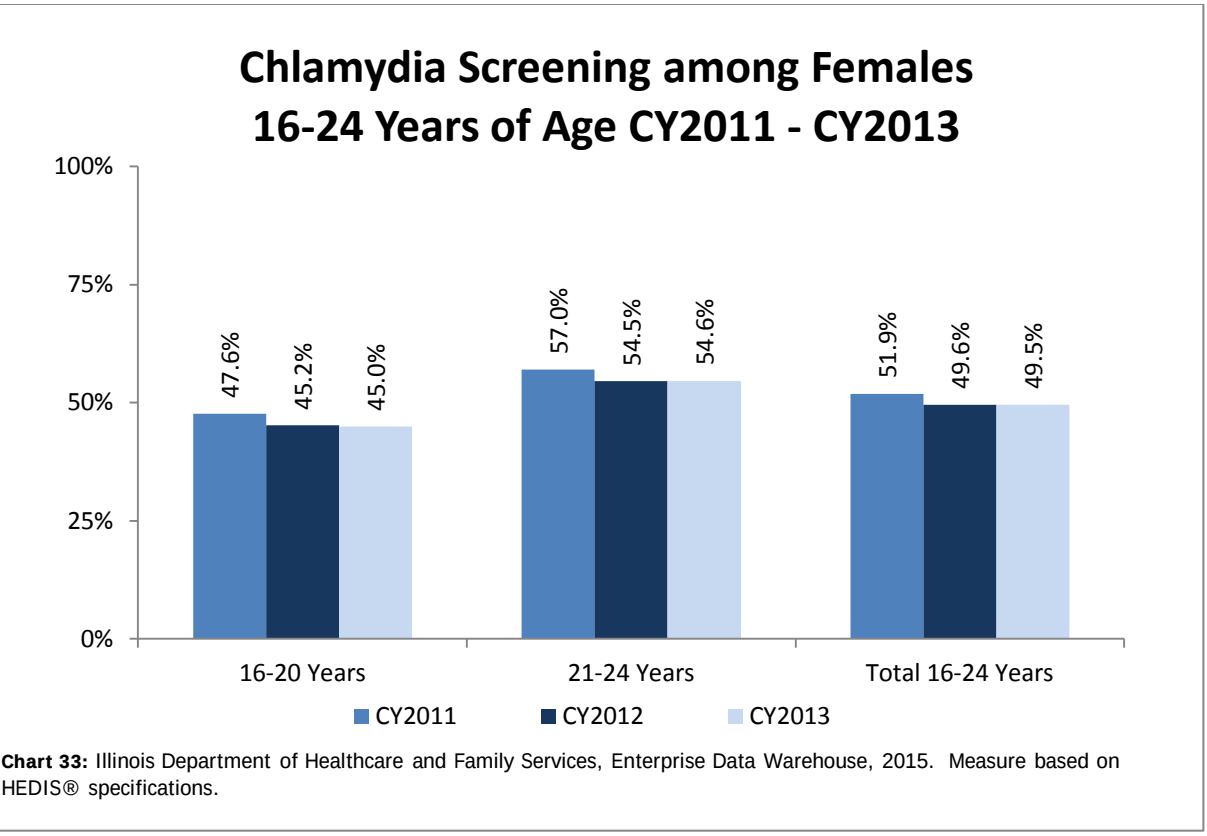


Chart 33: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on HEDIS® specifications.

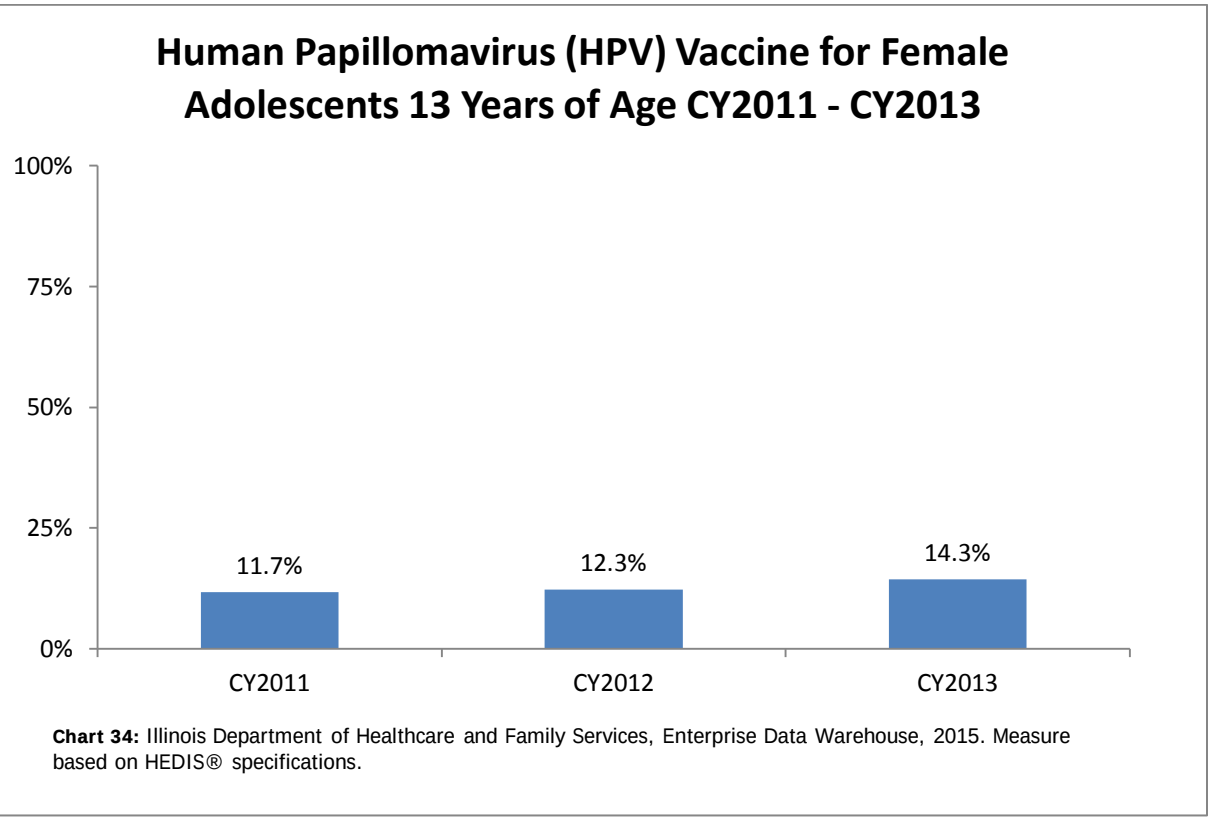


Chart 34: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on HEDIS® specifications.

Use of Most or Moderately Effective Contraceptive Method CY2011 - CY2013

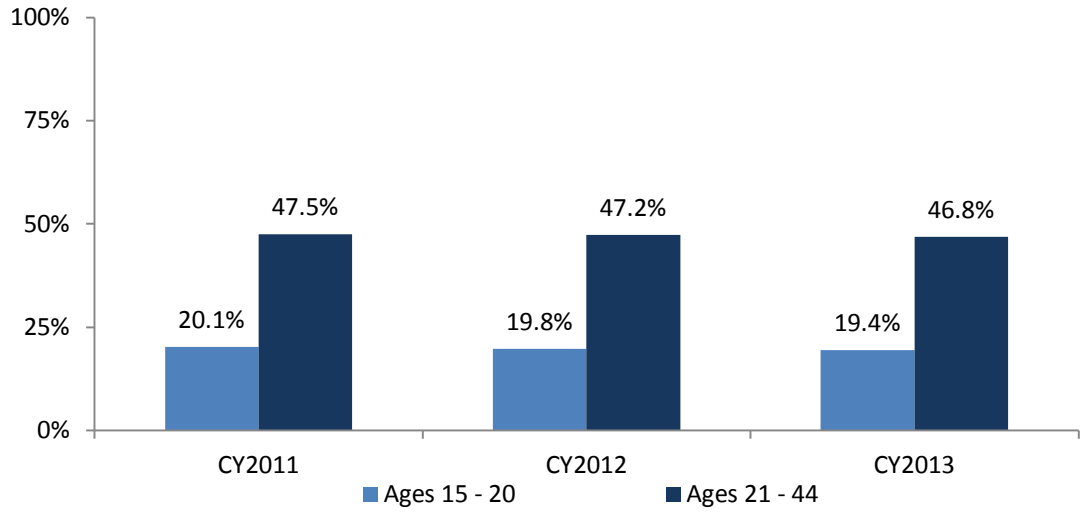


Chart 35: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse 2015. Measure based on provisional specifications developed by the U.S. Centers for Disease Control and Prevention (CDC).
Note: Most effective methods are female sterilization, contraceptive implants, or intrauterine devices or systems (IUD/IUS). Moderately effective methods are injectables, oral pills, patch, ring, or diaphragm. Long-acting reversible methods of contraception (LARC) include use of contraceptive implants, intrauterine devised or systems (IUD/IUS) and are included in this measure.

Use of Long-acting Reversible Contraceptive (LARC) Method CY2011 - CY2013

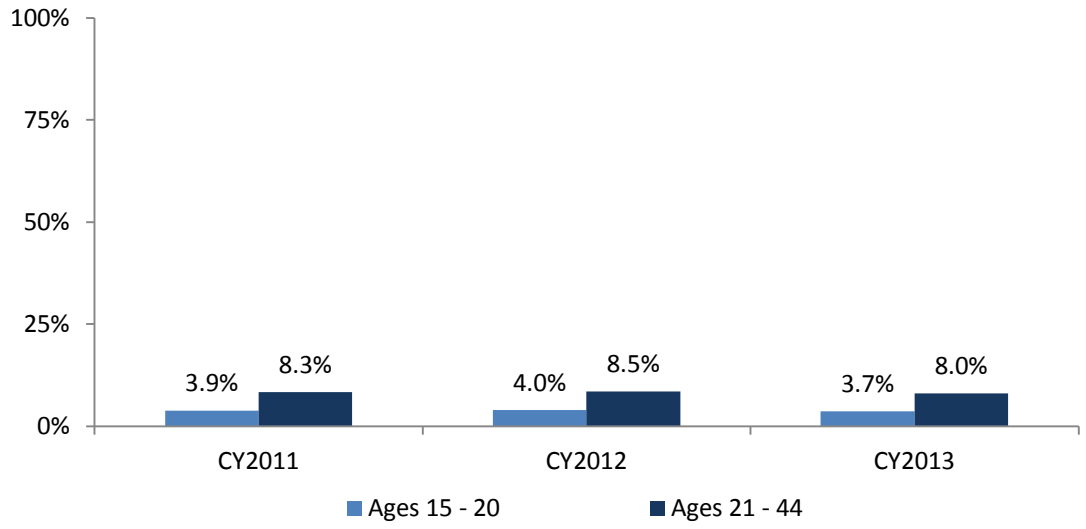


Chart 36: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015. Measure based on provisional specifications developed by the U.S. Centers for Disease Control and Prevention (CDC).
Note: Long-acting reversible methods of contraception (LARC) include use of contraceptive implants, intrauterine devised or systems (IUD/IUS).

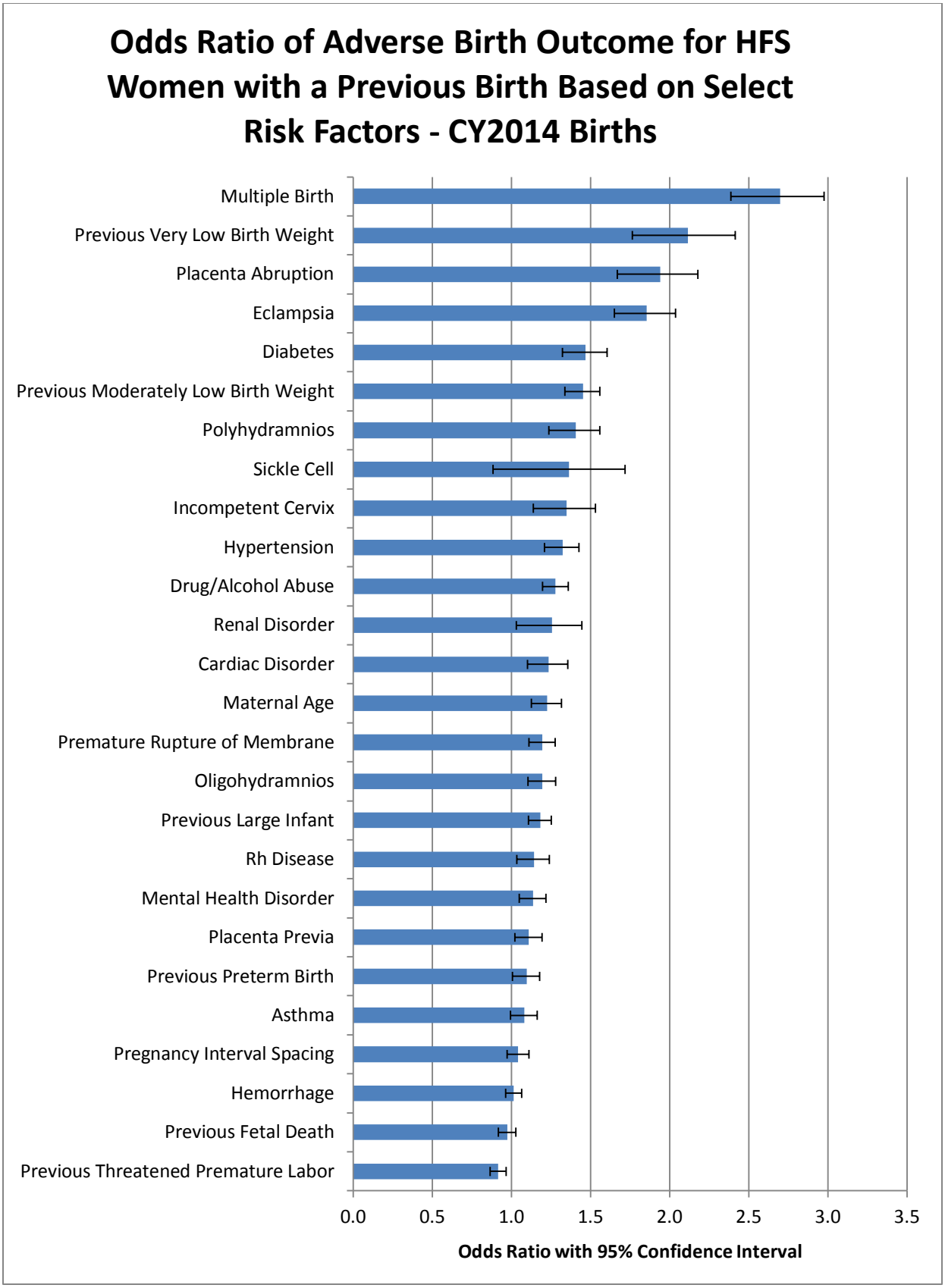


Chart 37: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.

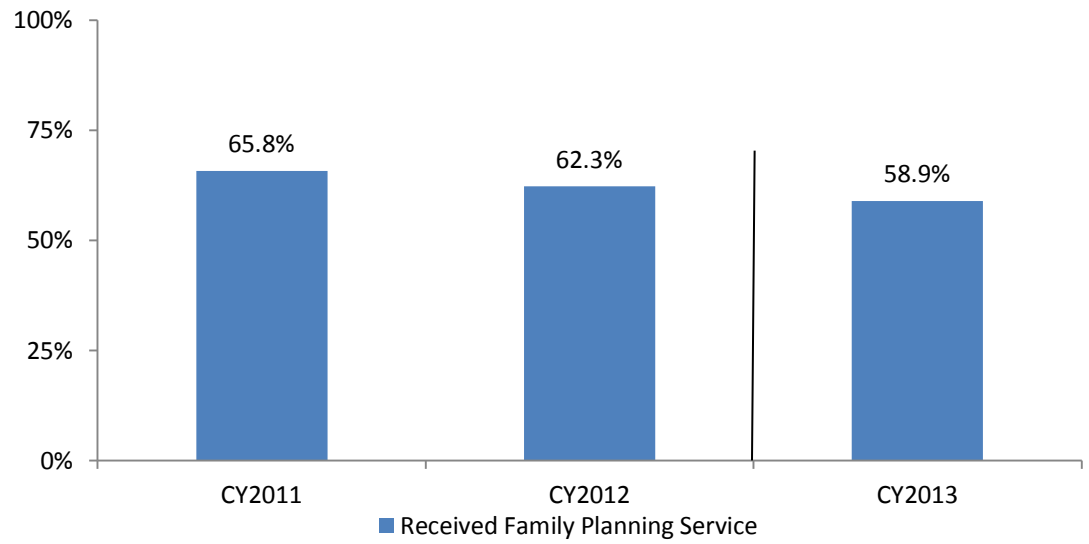


Chart 38: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013.

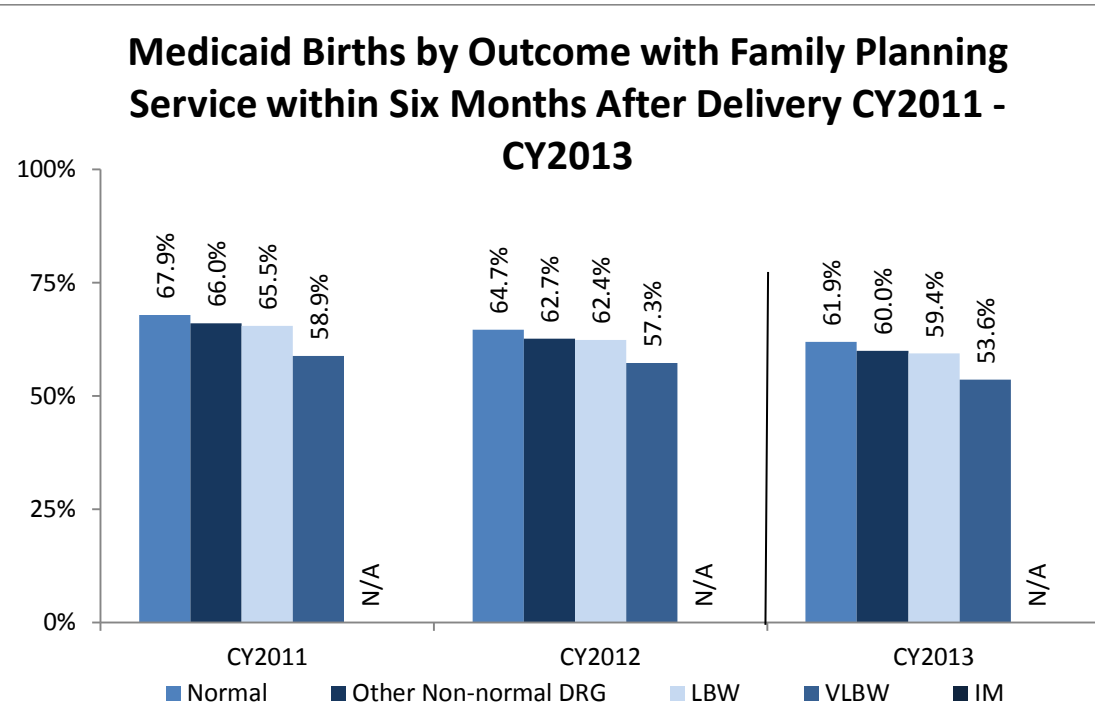


Chart 39: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Percentages calculated within each birth outcome type (e.g., percentage of all LBW births receiving the service). Data are among matched Mom/baby pairs. LBW is not inclusive of VLBW.

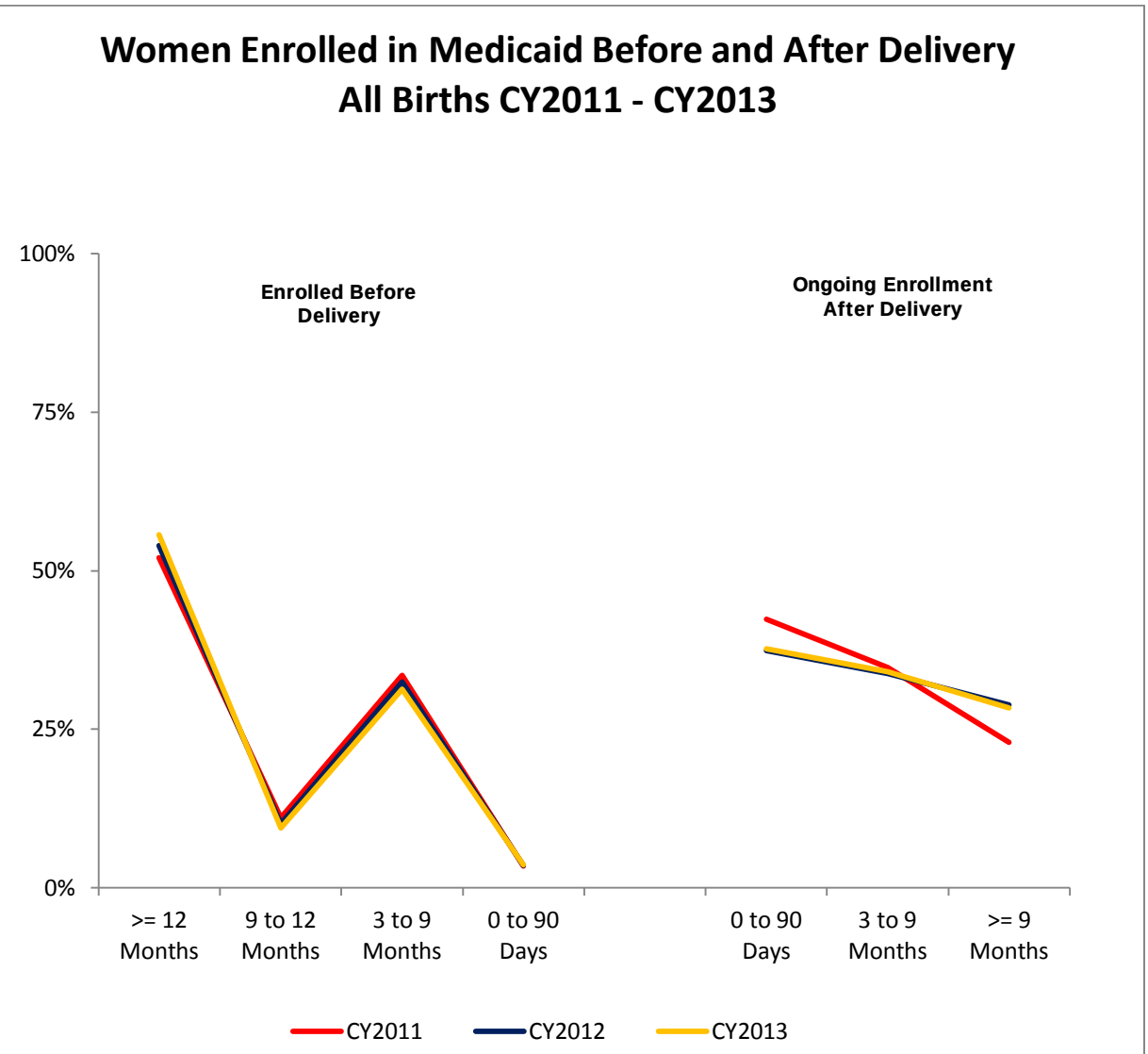


Chart 40: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.

Women Enrolled in Medicaid Before and After Delivery by Selected Poor Birth Outcomes CY2011 - CY2013

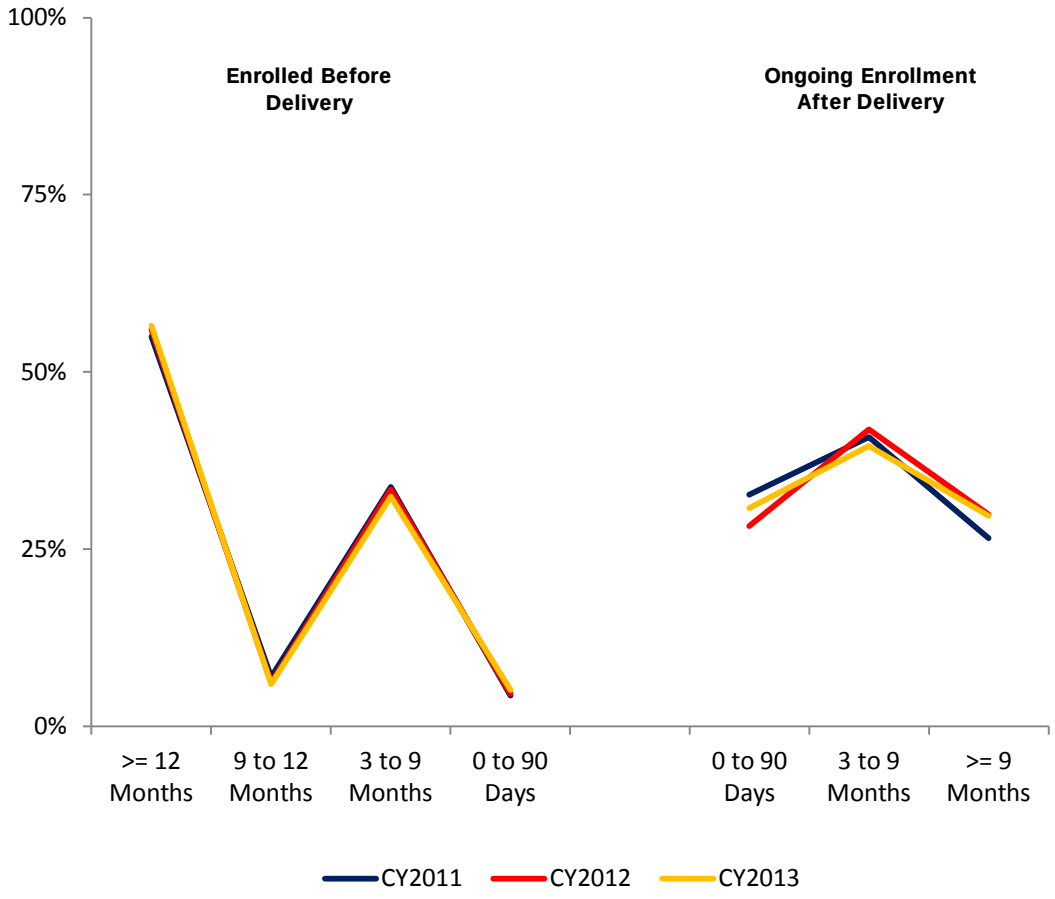


Chart 41: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.

NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Data are among matched Mom/baby pairs. Denominator excludes unknown birth outcome.

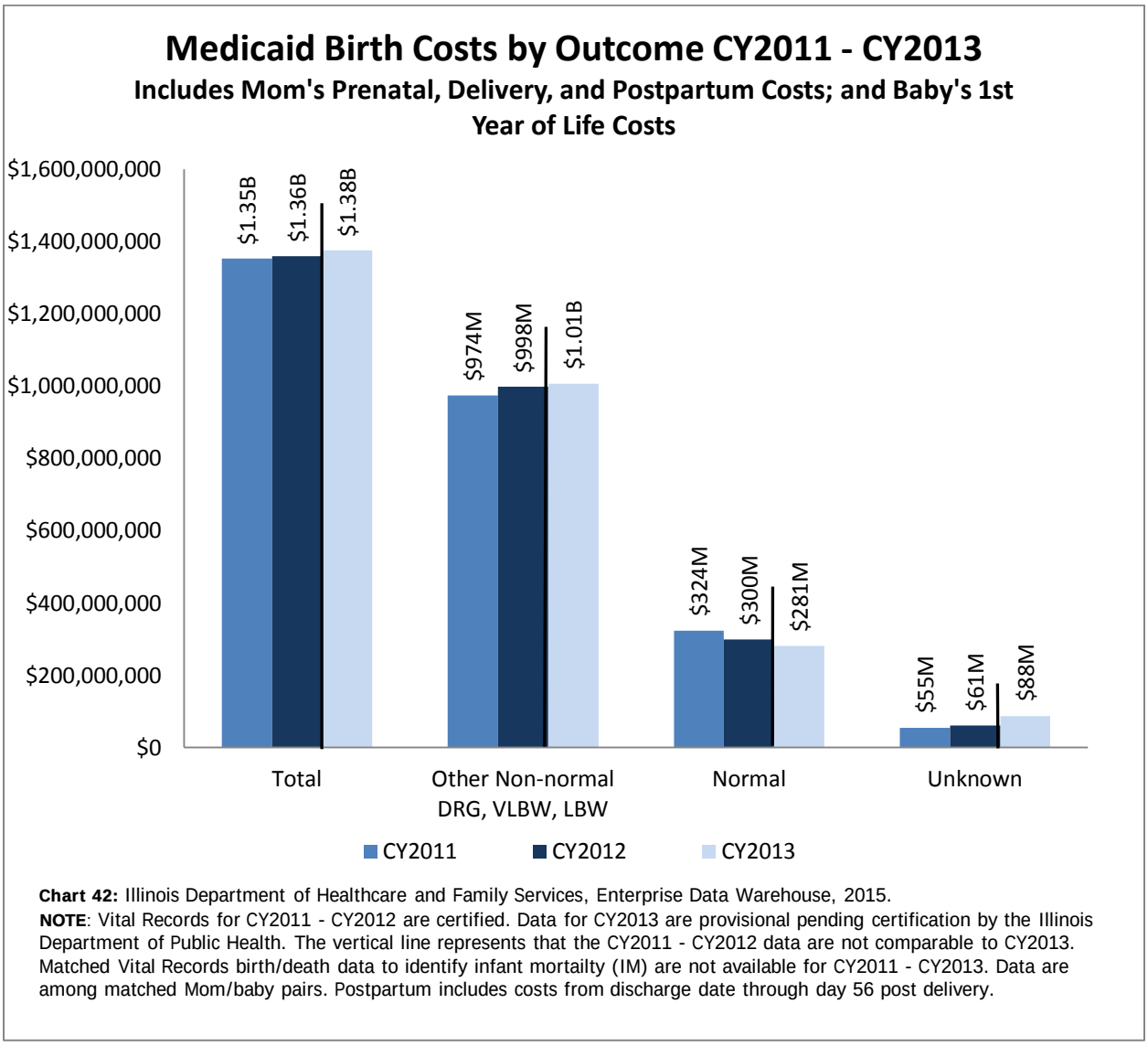


Chart 42: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Data are among matched Mom/baby pairs. Postpartum includes costs from discharge date through day 56 post delivery.

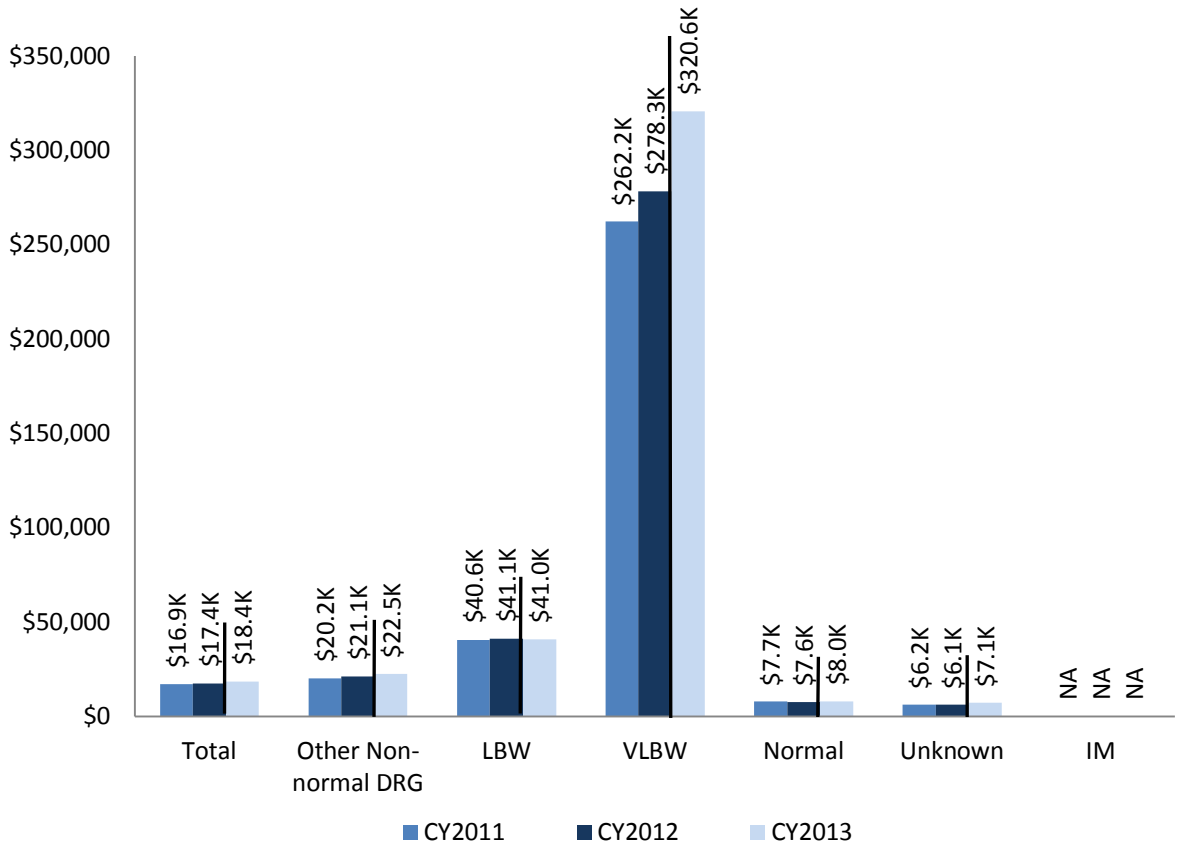


Chart 43: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The vertical line represents that the CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Data are among matched Mom/baby pairs. Postpartum includes costs from discharge date through day 56 post delivery. LBW is not inclusive of VLBW.

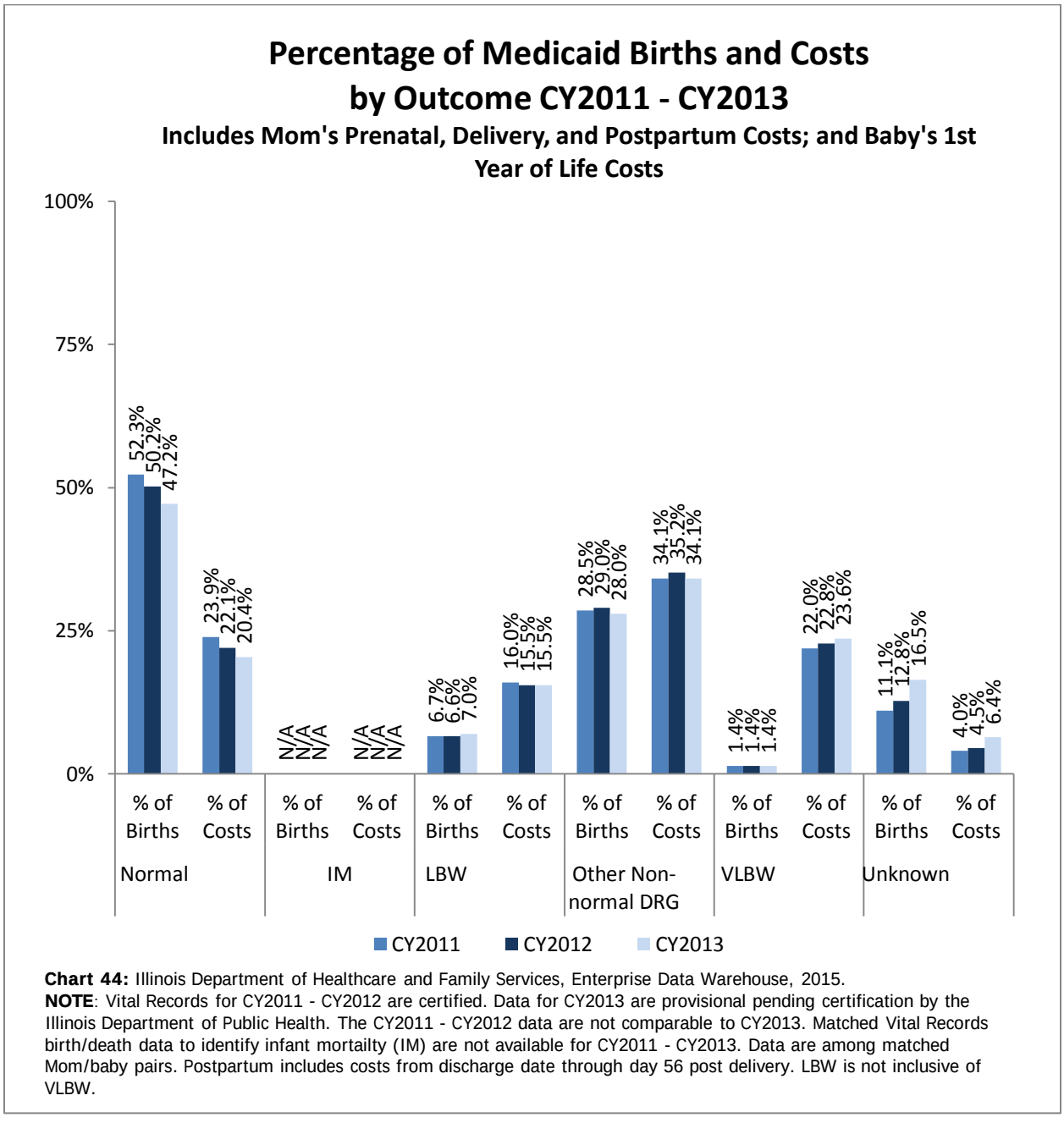


Chart 44: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, 2015.
NOTE: Vital Records for CY2011 - CY2012 are certified. Data for CY2013 are provisional pending certification by the Illinois Department of Public Health. The CY2011 - CY2012 data are not comparable to CY2013. Matched Vital Records birth/death data to identify infant mortailty (IM) are not available for CY2011 - CY2013. Data are among matched Mom/baby pairs. Postpartum includes costs from discharge date through day 56 post delivery. LBW is not inclusive of VLBW.