



## Perinatal Report 2022



**Illinois Department of  
Healthcare and Family Services**

**JB Pritzker, Governor  
Theresa Eagleson, Director**

This report and prior Perinatal Reports are available on the [HFS website](#).

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# A LETTER FROM THE DIRECTOR

Governor Pritzker and Honorable Members of the General Assembly:

I am pleased to present the 2022 Perinatal Report required by 305 ILCS 5/5-5.24. This is the ninth report offered by the Illinois Department of Healthcare and Family Services (HFS). Reports may be found on the HFS Website.

This report summarizes Medicaid prenatal and perinatal demographics and provides updates on various initiatives HFS has undertaken with its partners.



Since its first report in 2004, these reports have been a valuable guide for improving birth outcomes in Illinois. Please permit me to highlight a few indications of progress reflected in this report:

- Policy advances
  - In 2021, Illinois became the first state in the nation to extend postpartum Medicaid coverage to 12 months for all women (SB967). This expansion was a specific recommendation of the 2018 iteration of this report as well as the 2018 IDPH Maternal Mortality Report
  - The State in 2021 enacted a law to provide for universal newborn and maternal home visiting and doula services for Medicaid customers (HB 158).
  - Illinois Medicaid began providing hormonal birth control without a prescription at pharmacies.
  - A new HFS State Quality Strategy has been implemented, including metrics that will specifically help better measure maternal and child outcomes.
- Positive metrics
  - Infant mortality rates continue to decrease, from 6.4 per 1000 live births in 2016 to 5.6 in 2019.
  - Although much more needs to be accomplished, disparities in infant mortality rates have been reduced. For example, the rate among non-Hispanic African Americans dropped by 2.0 between 2016 and 2019 while decreasing among non-Hispanic Whites by 0.3.
  - The number of Caesarean sections overall was reduced from approximately 24% in 2017 to 21.5% in 2019, with a small drop as well in NSVT births from 2018-2019.
  - HPV vaccination increased from 33.5% to 36.4% from 2017 to 2019.

While considerable progress has been achieved in both policy and outcomes, a great deal of work remains.

In 2021, the Department launched a new Mission, Vision and Values that commits HFS to addressing social and structural determinants of health as we continually work to improve lives. We believe this commitment literally begins here, by improving prenatal and perinatal outcomes, and will continue to focus every day on this vital goal.

Sincerely,

Theresa Eagleson,  
Director

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## INTRODUCTION

### Legislative Mandate

This statute was enacted with the goal of improving birth outcomes for the over 80,000 births covered annually in the Medicaid program administered by the Illinois Department of Healthcare and Family Services (HFS). To achieve this goal, the statute authorizes HFS to reimburse for prenatal and perinatal health care services that prevent low birth weight infants, reduce the need for neonatal intensive care hospital services, and promote perinatal health.

Services that qualify for reimbursement include:

- Comprehensive risk assessments for pregnant women, women with infants, and infants
- Lactation counseling
- Nutrition counseling
- Childbirth support
- Psychosocial counseling
- Treatment and prevention of periodontal disease
- Other support services that have been proven to improve birth outcomes



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## REPORT SUMMARY

This report summarizes Medicaid perinatal demographics and provides updates on various initiatives HFS has undertaken with its partners to improve birth outcomes and reduce the personal, medical, and social costs associated with poor birth outcomes. Much work remains to be done. Given that Medicaid covers approximately 50% of all Illinois births and approximately 90% of Illinois teen births, the imperative for action and the State's interests are not debatable. HFS anticipates that through current endeavors and the prioritization of improving birth outcomes and ongoing partnerships, it will see a positive effect on the lives of women, children, and Illinois families. Some of HFS' ongoing initiatives include:

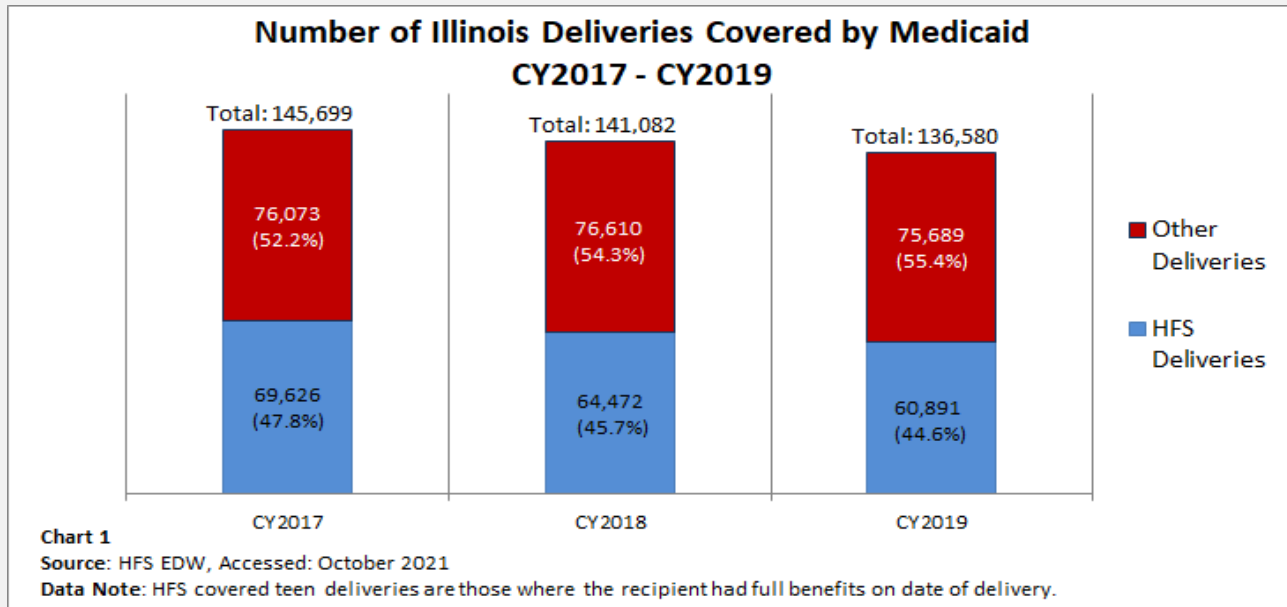
- Collaboration with federal agencies on innovations in healthcare policy such as extending postpartum care to 12 months for all women.
- Utilization of quality improvement science along with our agency and organizational partners to evaluate data, implement evidence-based practices, and drive policy and program initiatives to improve quality and healthcare delivery.
- Collaboration with other 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.
- Identify high-risk maternal populations early enough to address urgent care needs.
- Providing data to Managed Care Organizations (MCOs) via the Care Coordination Claims Data (CCCD) files to identify high-risk pregnant women and to risk stratify their general covered population and encourage MCOs to utilize their reach to further assist high risk populations.
- Continuing robust efforts to improve contraceptive uptake and enhance contraceptive policy development to improve inter-pregnancy spacing, improve poor birth outcomes, and decrease unintended pregnancy.



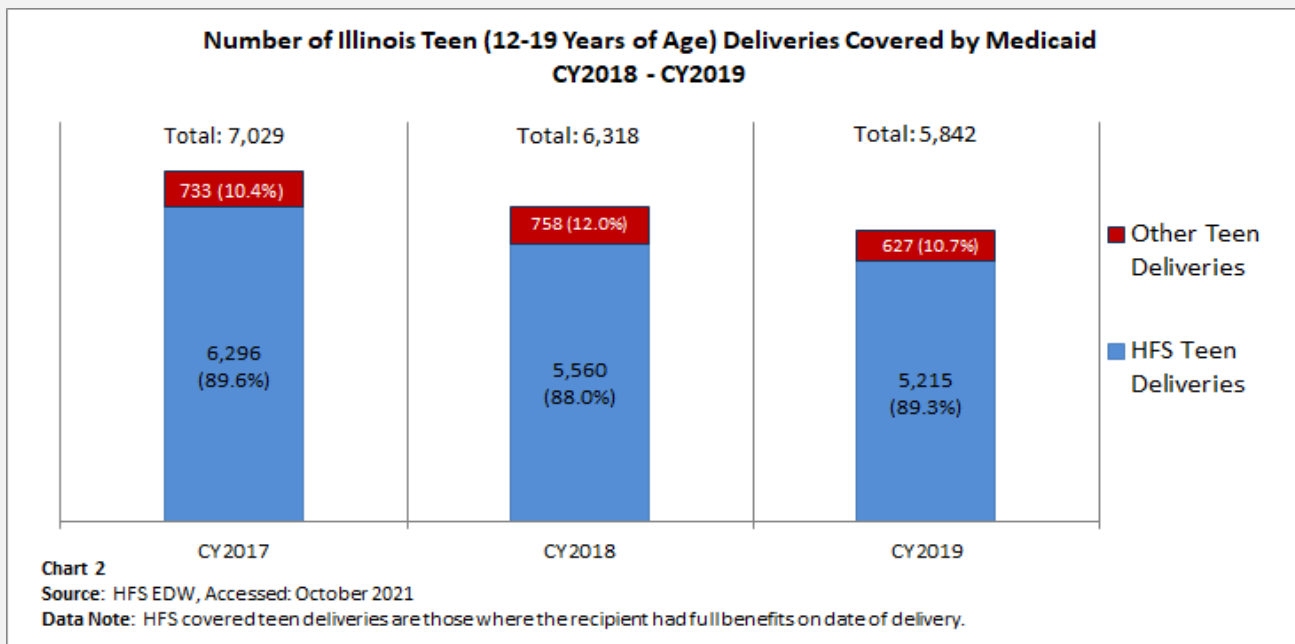
## Data on Medicaid Births

### Overall Number of Births

In Calendar Years (CY) 2018 and 2019, the overall number of births fell in the state by 4,502, the total proportion of Illinois deliveries covered by Medicaid fell 5.9%.



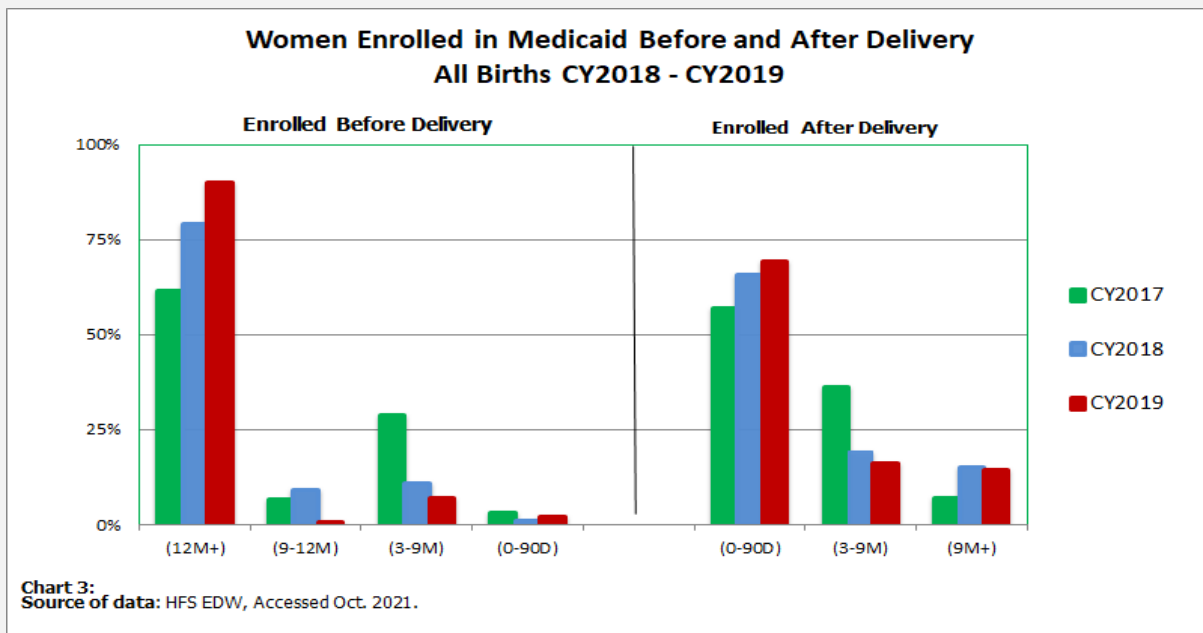
The number of Illinois teen deliveries, both in total and for those covered by Medicaid, is declining but the proportion of teen deliveries covered by Medicaid stayed roughly the same, increasing from 88.0% in CY 2018 to 89.3% in CY 2019.



## Women Enrolled in Medicaid Before and After Delivery

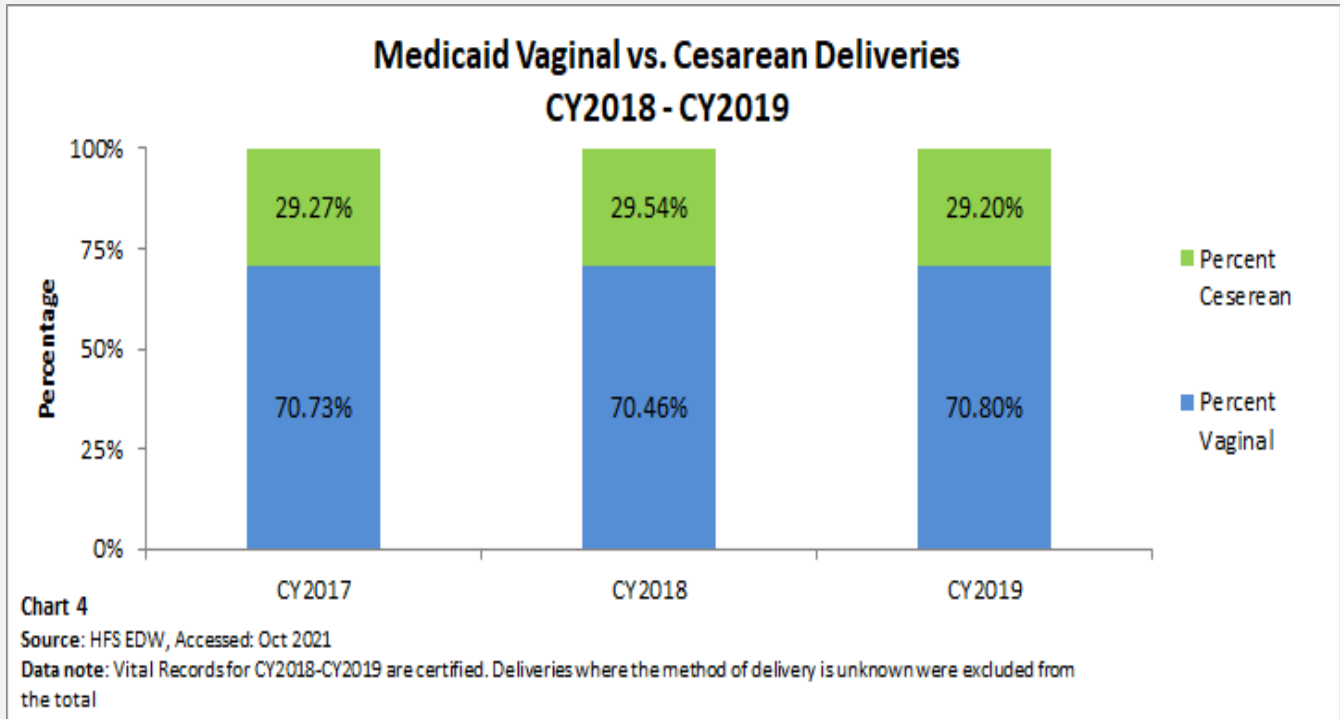
Of the women who delivered infants while on Medicaid in 2018 and 2019, nearly 80-90% had been enrolled in Medicaid for one year prior to delivery. Only a small percentage enrolled during the 90 days prior to the birth of the child. Approximately 65-70% remained enrolled up to 90 days postpartum, but that percentage dropped dramatically to 15-20% between 3-12 months postpartum. This is an area we expect to improve with the addition of the 1115 waiver approved in April 2021 in Illinois, that provides continuous eligibility for women through 12 months postpartum.

Women Enrolled in Illinois Medicaid								
	Before Delivery					After Delivery		
	12 Months +	9-12 Months	3-9 Months	0 to 90 Days		0 to 90 Days	3-9 Months	9 Months+
	(12M+)	(9-12M)	(3-9M)	(0-90D)		(0-90D)	(3-9M)	(9M+)
<b>CY2017</b>	61.5%	6.6%	28.7%	3.2%		56.8%	36.1%	7.1%
<b>CY2018</b>	78.9%	9.2%	11.0%	0.9%		65.7%	19.1%	15.2%
<b>CY2019</b>	90.2%	0.8%	7.1%	1.9%		69.3%	16.3%	14.4%



## Delivery Methods

Percentages for Vaginal and Cesarean deliveries remained essentially static over CY2017-2019.



From CY2018 through CY2019, the cesarean section rate among women experiencing a single first term birth in vertex (head down) position decreased from 22.0% to 21.5%. In general, a first birth of a single child to a woman with no known health issues, where the child is in the proper position for birth, is expected to be uncomplicated and should be performed vaginally. Cesarean births should be performed in circumstances only where medically indicated.

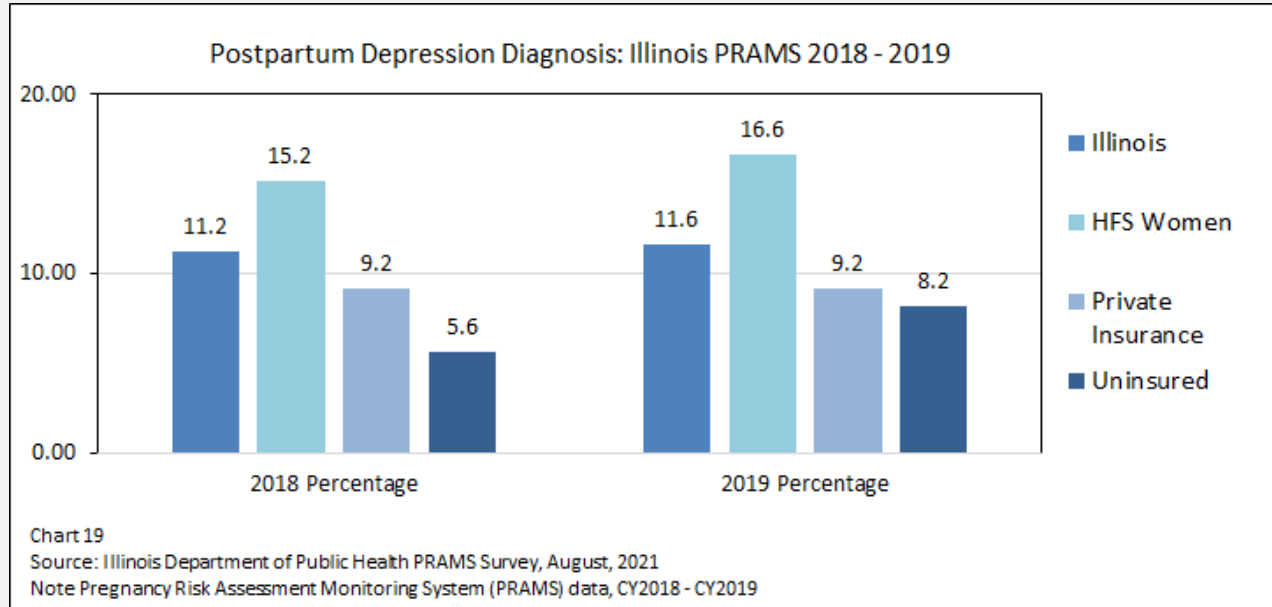
<b>Cesarean Rate for Low-Risk Births (NSVT)</b>			
	CY2017	CY2018	CY2019
Vaginal Delivery	76.06%	78.02%	78.52%
Cesarean Delivery	23.94%	21.98%	21.48%



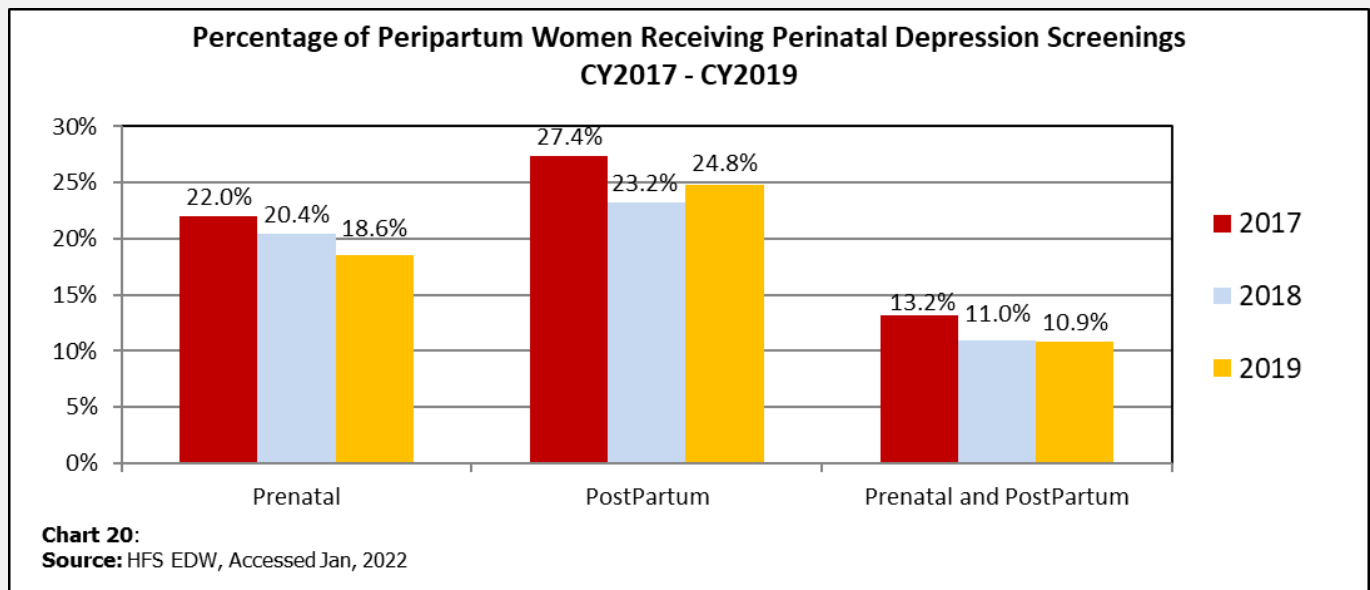
## Health Characteristics of Illinois Women Prior, During and After Pregnancy

### Mental Health

Women enrolled in Medicaid reported being diagnosed with postpartum depression at a higher rate than other women.



From CY2018 through CY2019, there was a slight decrease in the rate of women receiving perinatal (including prenatal and postpartum) depression screening. A prior year recommendation was to make information and training available to providers on how to use the depression screening tools. HFS has educated providers on the screening tools and partnered with other organizations to provide training on depression screening. HFS has seen an increased trend in non-mental health specialty healthcare providers requesting information on treatment options. Postpartum depression screening is now also covered by Medicaid when it is performed using the appropriate tools during the pediatric follow up visits in the first year postpartum if the child is a Medicaid recipient.



## Smoking

Smoking by women before and during pregnancy is a contributing factor to low birth weight. Various initiatives have been implemented to decrease smoking among Medicaid-enrolled women. These initiatives are detailed in previous reports and include provider assessment of smoking status, referrals to smoking cessation services (separately reimbursed by HFS) and encouraging patients to quit by such methods as motivational and self-help booklets.

<b>Prevalence of Smoking Before and During Pregnancy: Illinois PRAMS</b>	<b>CY2018</b>	<b>CY2019</b>
<b>Women who smoked 3 months before pregnancy</b>	<b>Percentage</b>	<b>Percentage</b>
Illinois	14.7	15.4
Medicaid	28.1	23.5
Private	8.7	13.2
Uninsured	11.2	6.6
<b>Women who smoked during last 3 months of pregnancy</b>	<b>Percentage</b>	<b>Percentage</b>
Illinois	6.9	6.7
Medicaid	13.3	9.9
Private	1.9	3.7
Uninsured	-	-

Chart 21: Illinois Department of Public Health, Illinois Center for Health Statistics, 2019 Pregnancy Risk Assessment Monitoring System (PRAMS).



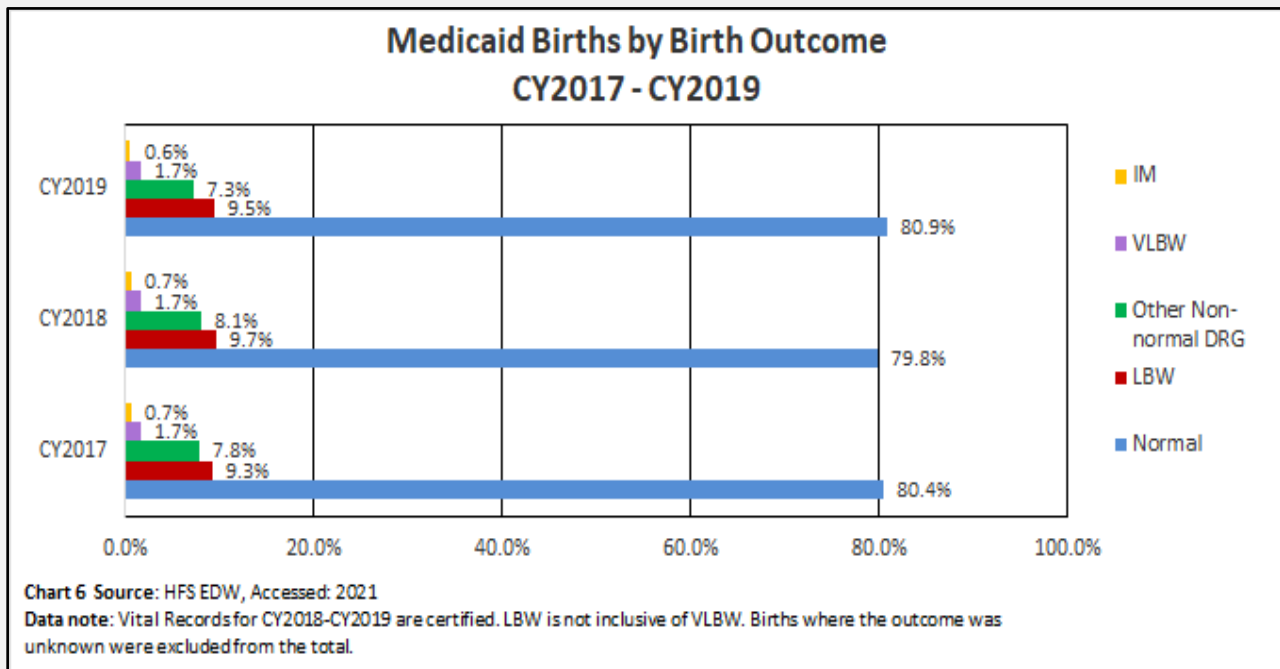
Medicaid-enrolled women are less likely to use alcohol in the three months before pregnancy and during pregnancy than other insured women, but all groups of women self-report high levels of alcohol use.

Prevalence of Drinking Before Pregnancy: Illinois PRAMS CY2018 and CY2019				
Women who drank 3 months before pregnancy	CY2018		CY2019	
	Percentage	CI	Percentage	CI
Illinois	63.0	60.1-65.8%	64.3	61.2-67.2%
Medicaid	49.4	43.9-54.9%	50.3	44.1-56.5%
Private	74.8	71.3-78.0%	76.0	72.4-79.2%
Uninsured	40.1	31.3-49.5%	42.2	33.9-51.0%

**Chart 22:** Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, CY2018 & CY2019 Pregnancy Risk Assessment Monitoring System (PRAMS). CI = Confidence Interval

### Birth Outcomes

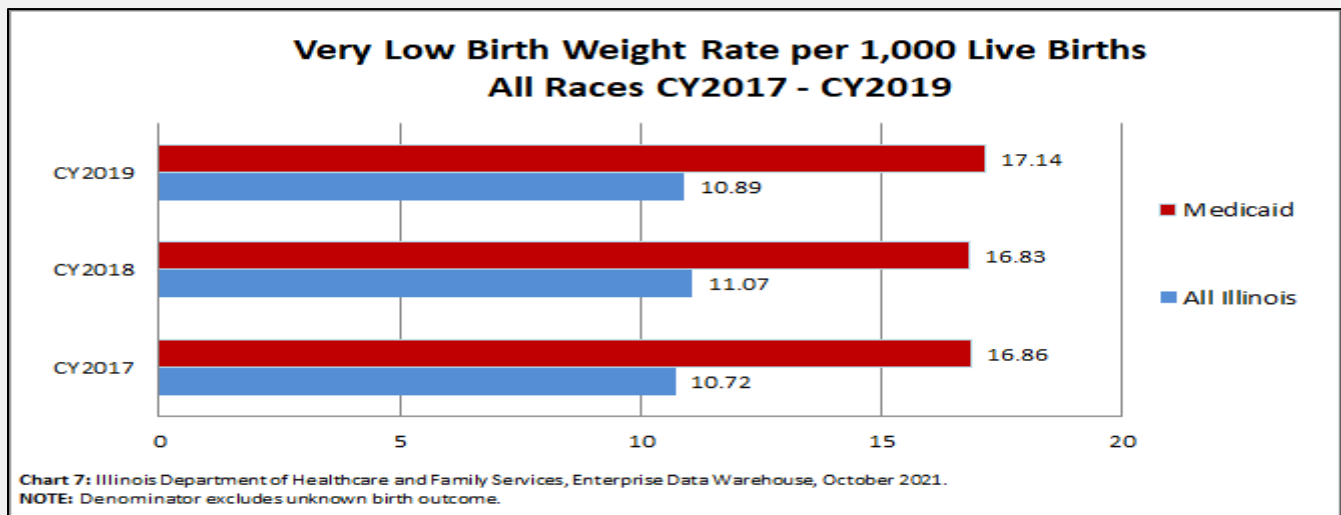
Based on vital records data indicated in the charts below, between CY2018 and CY2019, infants born in the weight range designated as "normal births" decreased by approximately 12.01% for the Medicaid population.



## Very Low Birth Weight

From CY2018 through CY2019, the Very Low Birth Weight (VLBW) (1 to 1500 grams) per 1,000 live births decreased for the non-Medicaid population. It rose substantially for the Medicaid population.

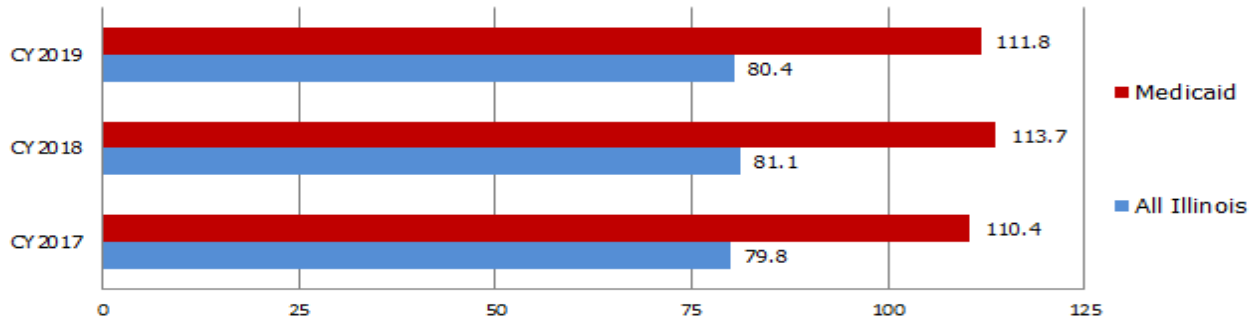
Very Low Birth Weight Rate Per 1000 Live Births		
	All Illinois	Medicaid
CY2017	10.72	16.86
CY2018	11.07	16.83
CY2019	10.89	17.14



From CY2018 through CY2019, the LBW (1 to 2,500 grams) rate per 1,000 live births decreased slightly for all Illinois however it increased significantly for the Medicaid population.

Low Birth Weight Rate (includes VLBW) Rate Per 1000 Live Births		
	All Illinois	Medicaid
CY2017	79.8	110.4
CY2018	81.1	113.7
CY2019	80.4	111.8

### Low Birth Weight Rate per 1,000 Live Births All Races CY2017 - CY2019

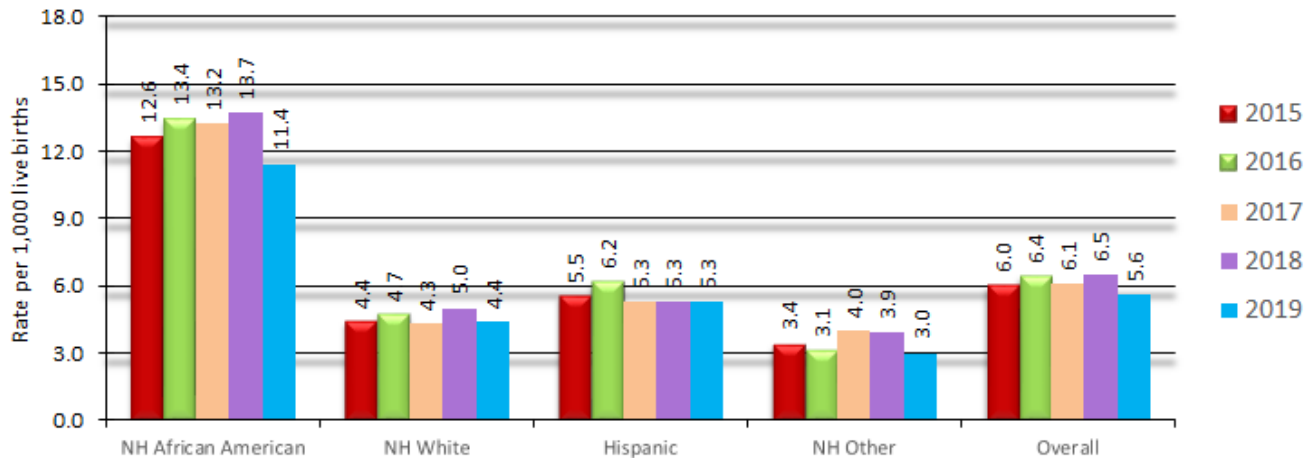


**Chart 8:** Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, October 2021.  
**NOTE:** LBW is inclusive of VLBW. Denominator excludes unknown birth outcome.

### Infant Mortality by Race

The Medicaid infant mortality rate decreased slightly from 6.0 per 1,000 live births in CY2018 to 5.2 in CY2019. And while infant mortality rates are trend downward in CY2019 from CY2018, the racial disparity for African American infants is pronounced, with a mortality rate for infants 2.6 higher than for white infants.

### Infant Mortality by Race CY2015 - CY2019



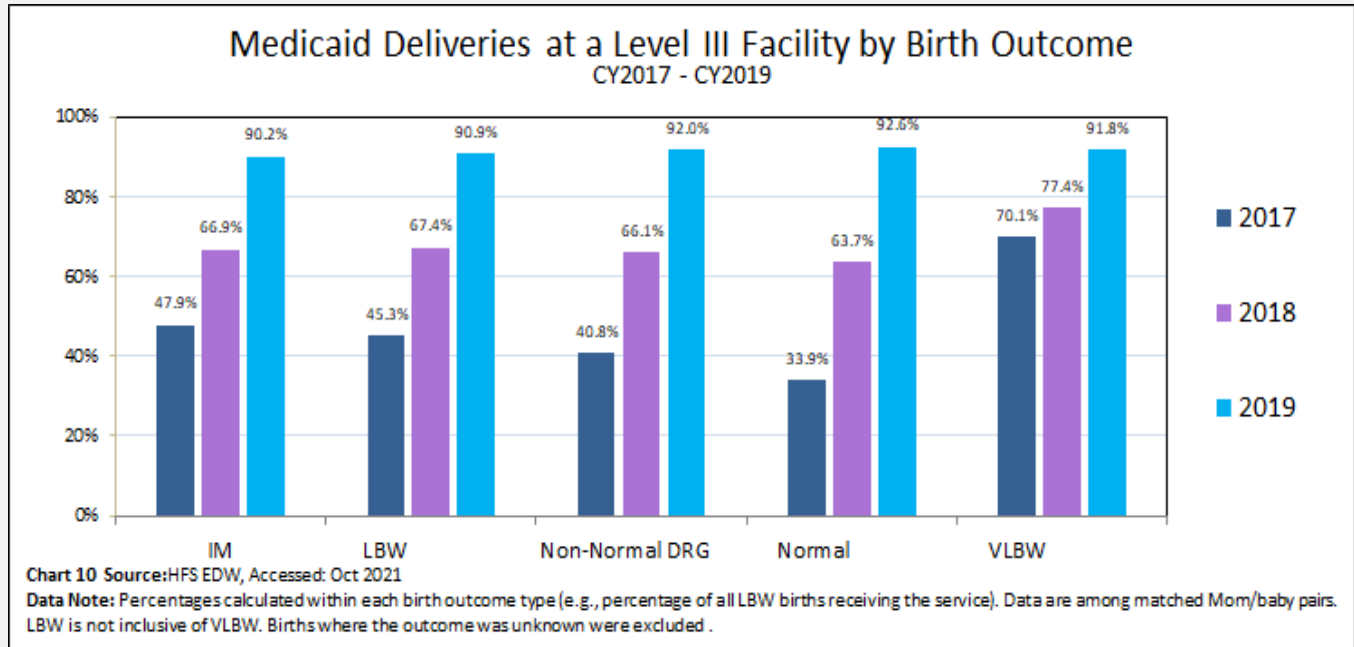
**Chart 9**

Source: Illinois Center for Health Statistics, Illinois Department of Public Health, Vital Statistics, Illinois Mortality Statistics, Accessed: July 2021

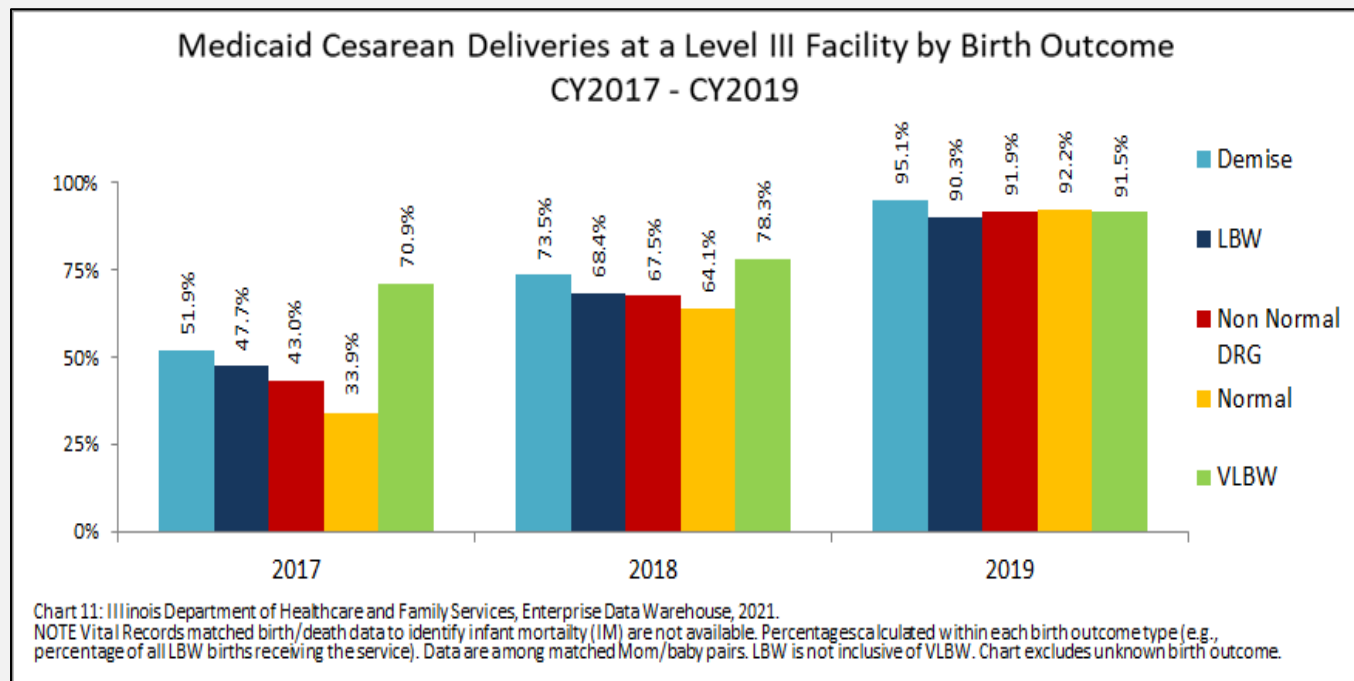
Illinois Infant Mortality Rate by Race, CY2000 - CY2019					
Year	NH African American	NH White	Hispanic	NH Other	Overall
2019	11.4	4.4	5.3	3.0	5.6
2018	13.7	5.0	5.3	3.9	6.5
2017	13.2	4.3	5.3	4.0	6.1
2016	13.4	4.7	6.2	3.1	6.4
2015	12.6	4.4	5.5	3.4	6.0

### Medicaid Deliveries at a Level III Facility by Birth Outcome

Among Medicaid covered deliveries, over two-thirds of all VLBW births (69% in CY2017) were delivered at a Perinatal Level III facility, followed by 45.2% of LBW births and over 40% of other non-normal diagnosis related group (DRG) deliveries. This data shows that more high-risk infants continue to be delivered at a Perinatal Level III facility.



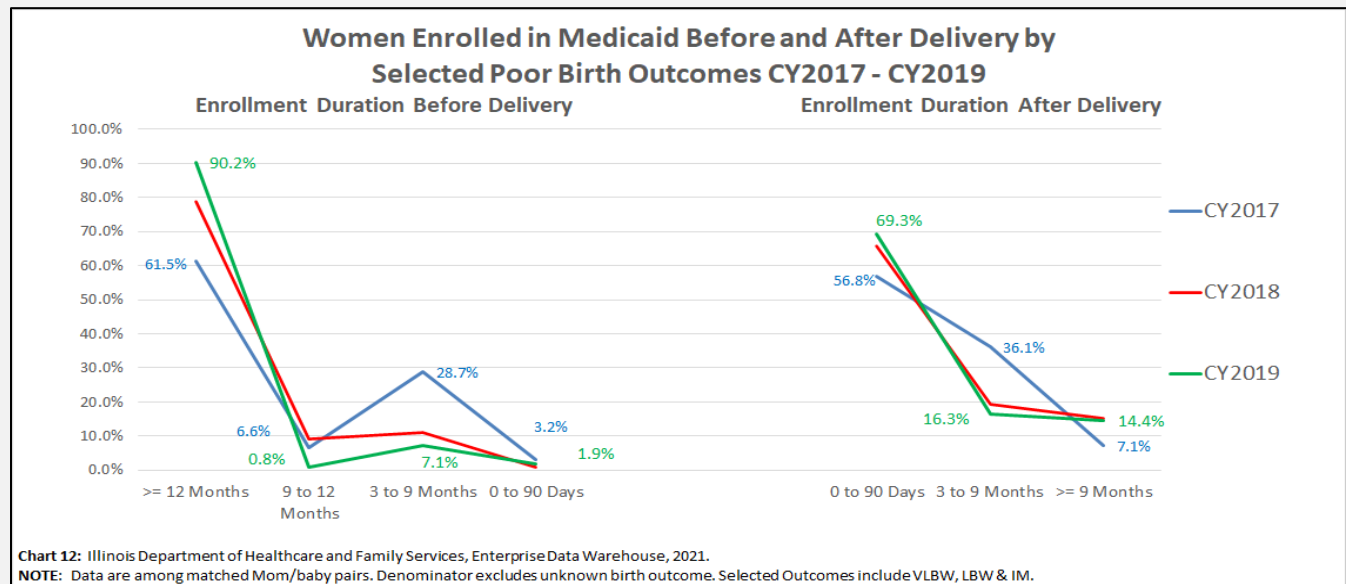
By the end of CY 2019, for Medicaid Cesarean births at a Perinatal Level III facility, approximately 45.9% of VLBW births, 56.3% of births resulting in IM, 43.1% of LBW births, 91.4% of other non-normal DRG births, and almost 92.4% of normal births were delivered by Cesarean. This indicates that births with higher levels of risk are most likely taking place at hospitals with higher levels of care as intended.



## Birth Costs

### Medicaid Enrollment

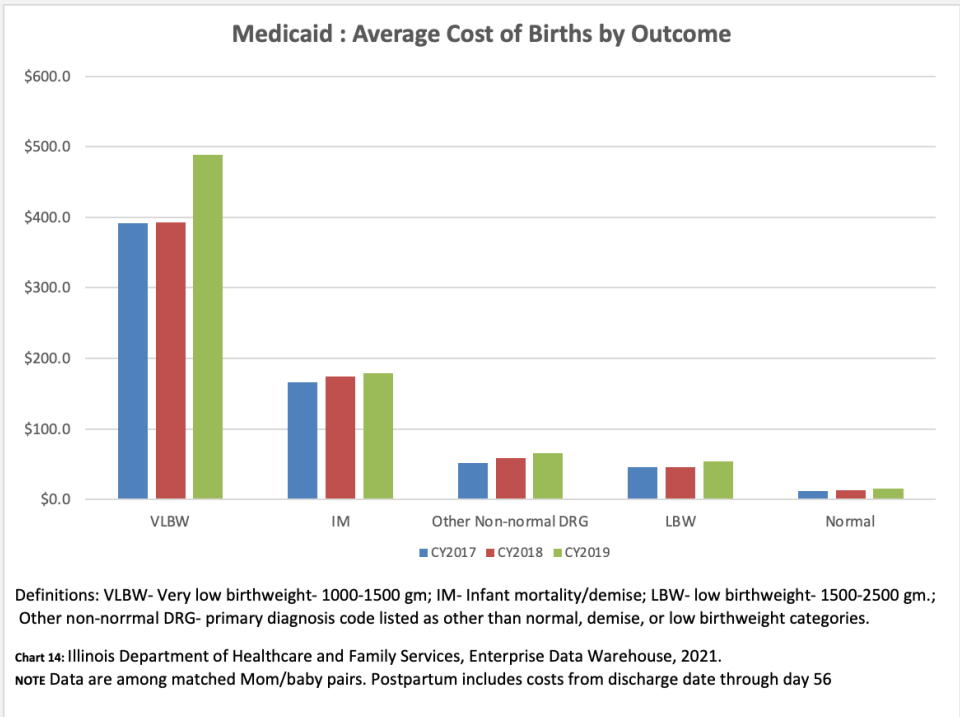
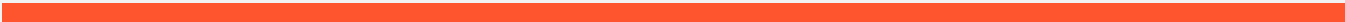
Of women whose infants had poor birth outcomes, the data demonstrates that more than 90 percent were enrolled in Medicaid for more than 12 months prior to delivery and about 6% were enrolled in the first 2 trimesters of the pregnancy. For most of this same group, Medicaid enrollment continued for 9 months postpartum while a slightly smaller group remained enrolled for more than 9 months after delivery.



**Technical Note Regarding the Following Analysis:** The births and costs in the next 4 charts are for those mothers and babies that HFS has linked in the analysis, so that the total cost of the birth (the mother’s prenatal, delivery, and postpartum costs as well as the cost of the baby’s first year of life) can be analyzed. Therefore, all births may not be represented in these charts.

Although births with poor birth outcomes comprise just less than 20% of all Medicaid-covered births, these births account for most Medicaid birth costs.



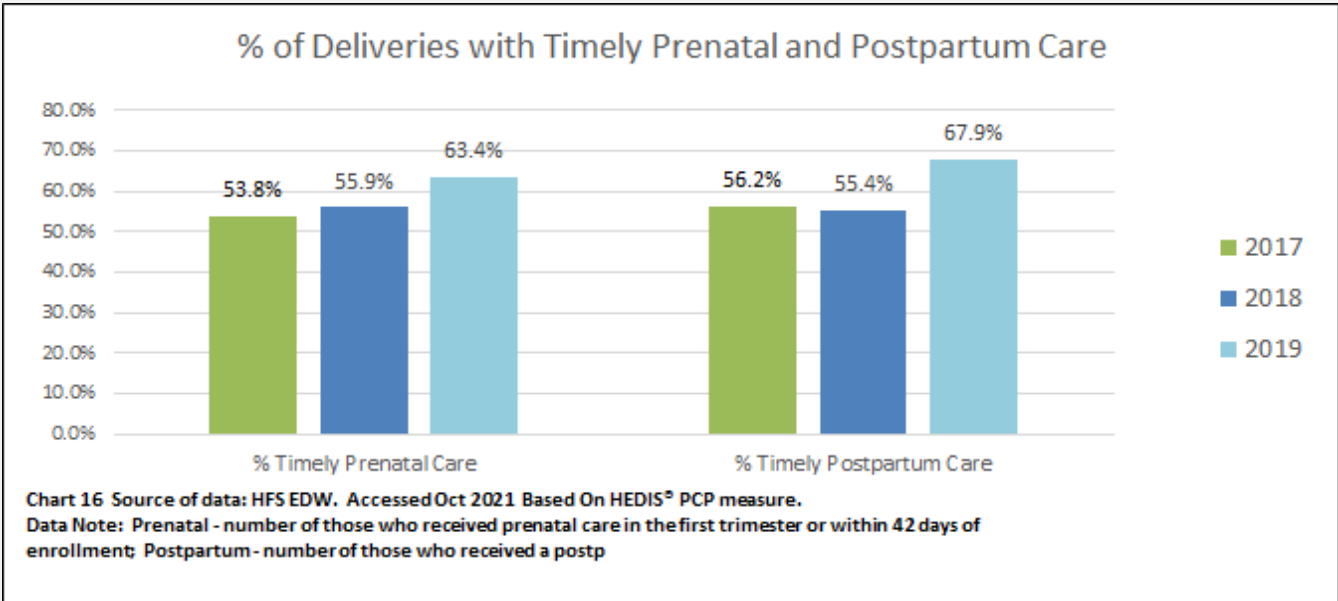


VLBW births represent the lowest percentage of live births, at nearly 1.2%, but they account for 20% of total birth costs (mom’s prenatal care, delivery, postpartum, and infant’s first year of life.) Conversely, approximately a third of matched births are normal outcome births and in CY2019, accounted for less than 25% of total birth costs.

### Prenatal and Postpartum Care

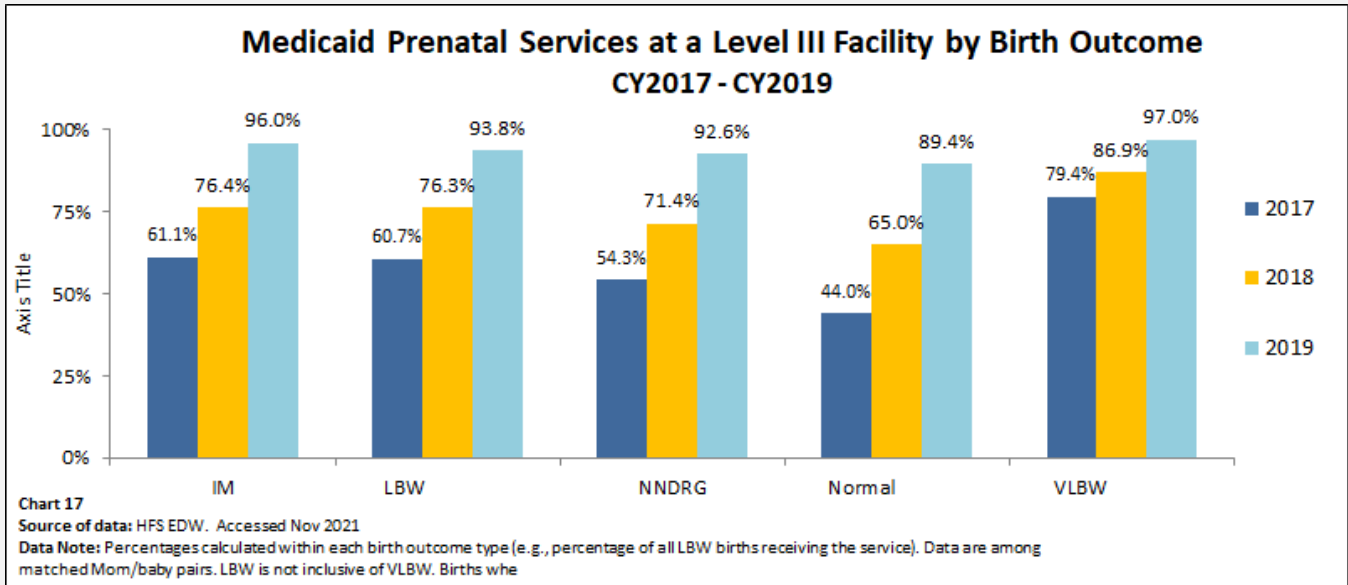
#### Timely Prenatal and Postpartum Care

In Measure Year (MY) 2019, more than 60% of women who delivered received timely prenatal care visits. This increased from MY2018 (55.90%). The percentage of women who delivered that received a timely postpartum visit increased from MY2018 (55.36%) to MY2019 (67.87%).

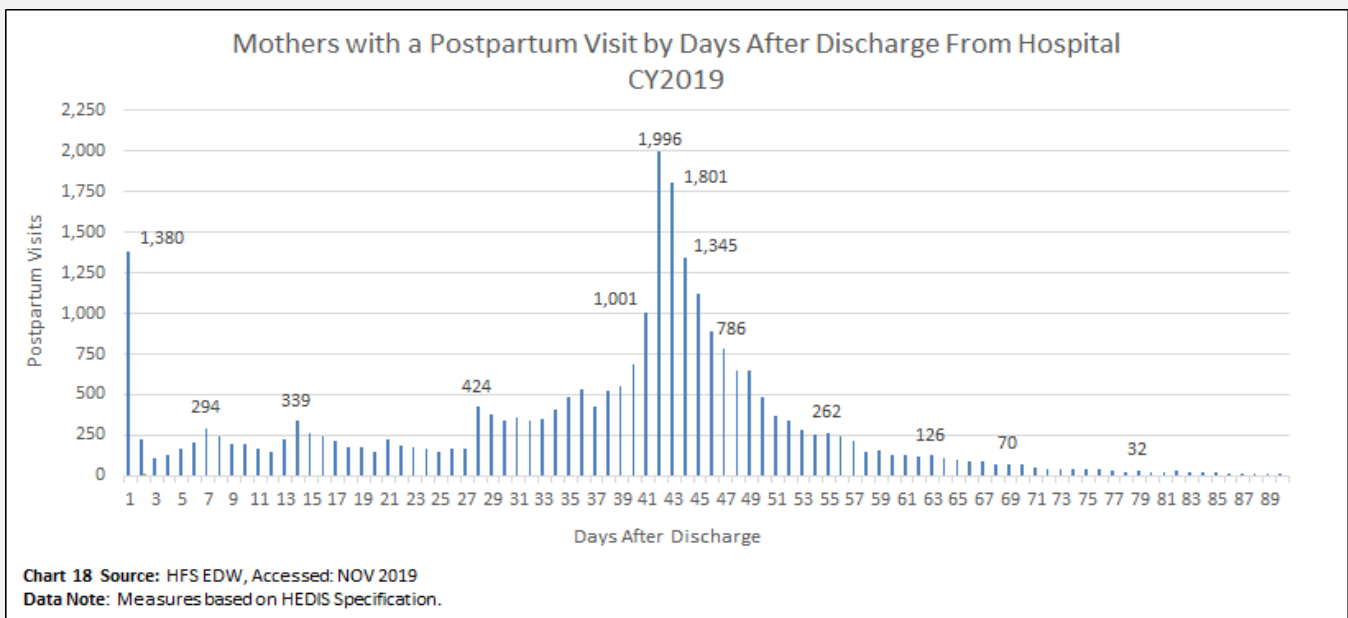




Higher rates of women experiencing VLBW, LBW and other non-normal DRG deliveries received their prenatal care at a Perinatal Level III hospital compared to women who had a normal birth outcome.



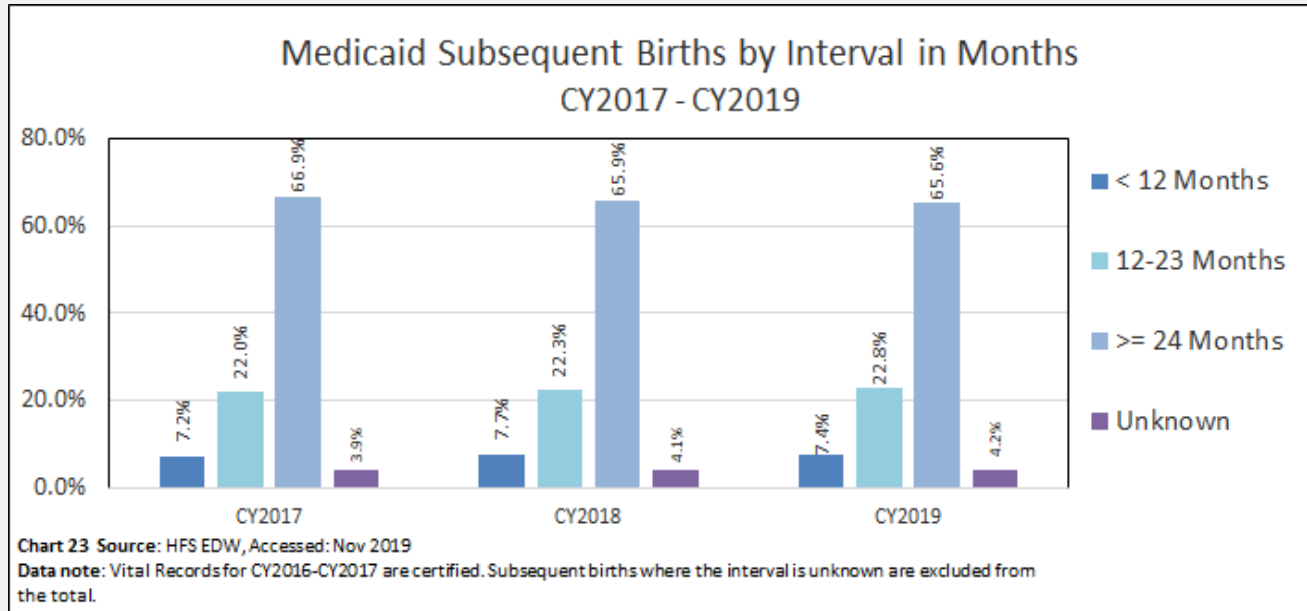
The number of postpartum visits by mothers in CY2019 peaks at about the 42nd day post discharge from hospital.



## Family Planning

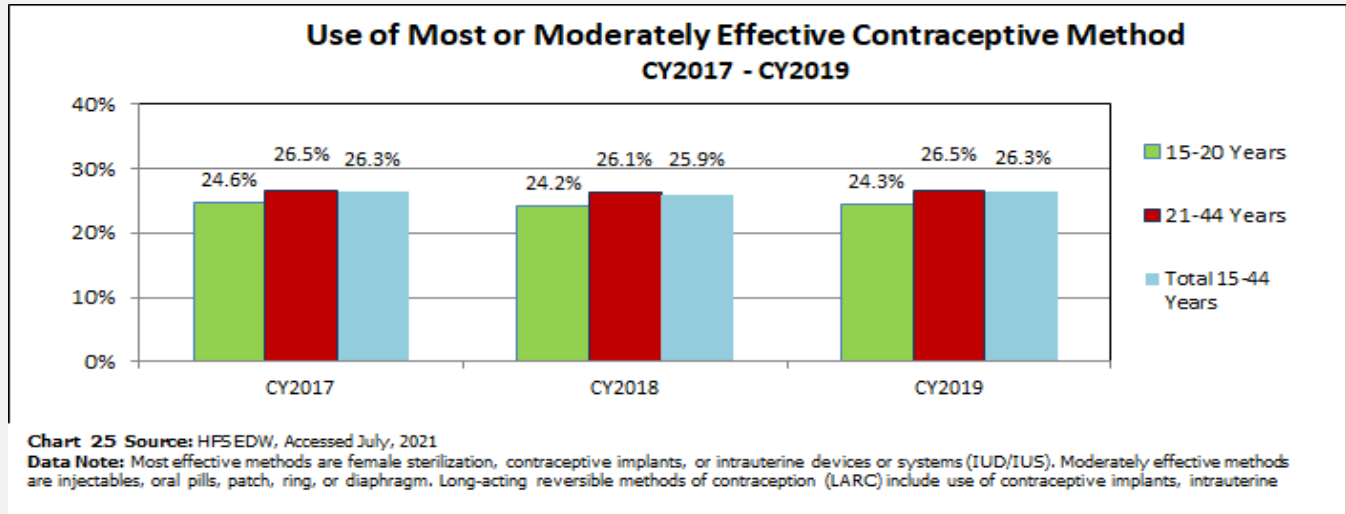
HFS continues its robust efforts to improve contraceptive uptake, enhance contraceptive policy development to improve inter-pregnancy spacing, improve birth outcomes, and decrease unintended pregnancy rates.

Pregnancies that start less than 18 months after birth are associated with delayed prenatal care and adverse birth outcomes, including preterm birth, neonatal morbidity, and low birthweight.

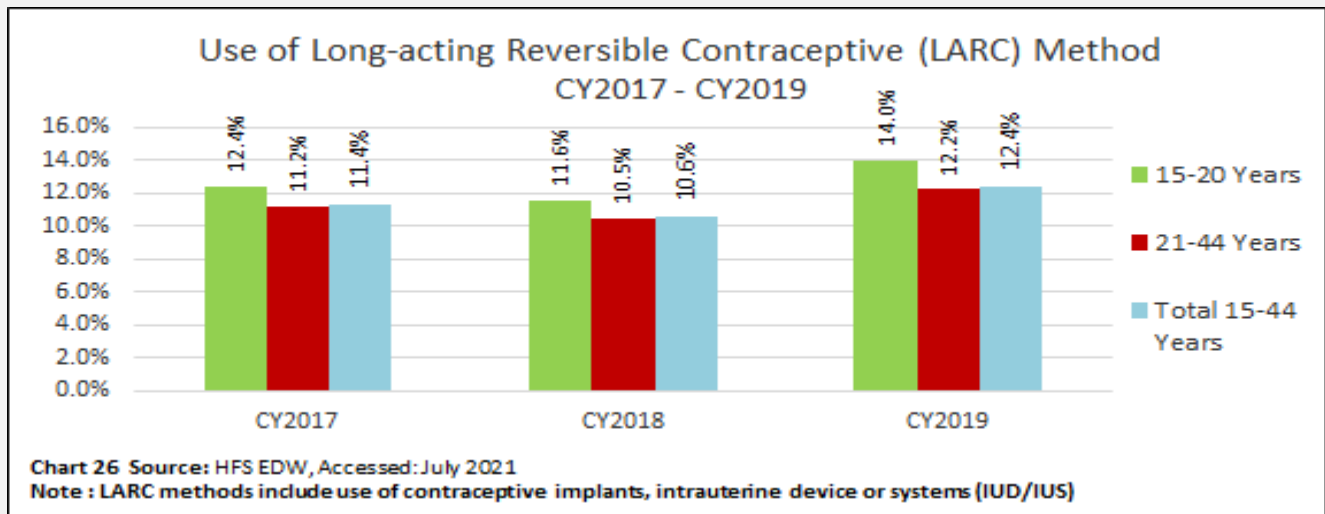


## Contraceptive Usage

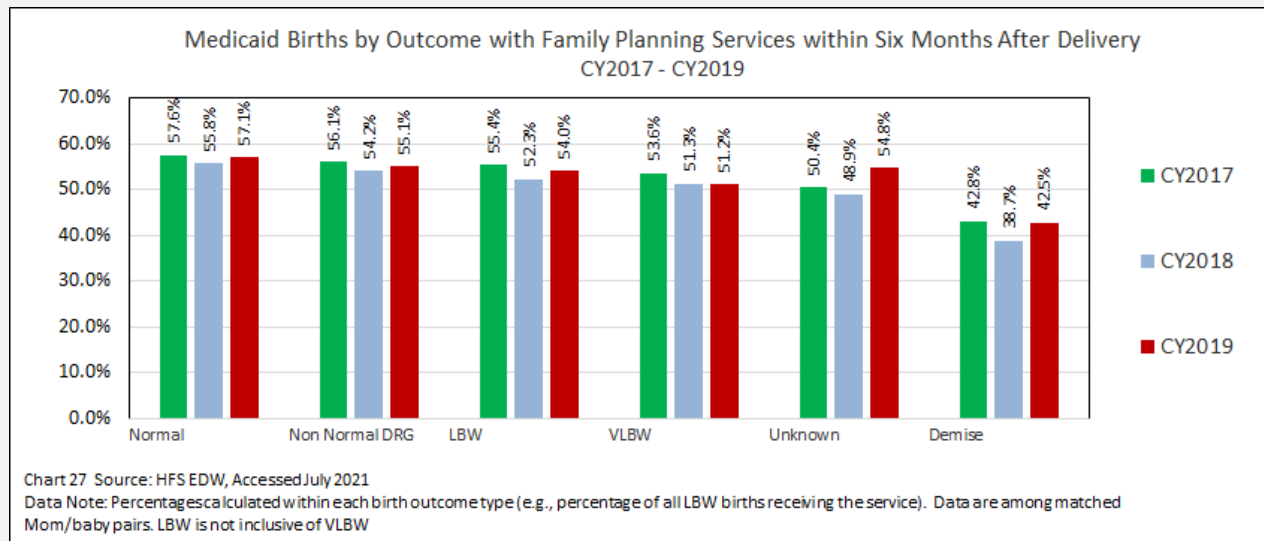
In the Medicaid managed care program, HFS continues to ensure that each MCO has family planning protocols which include a comprehensive list of FDA-approved contraceptives on its formulary. Through the newly signed HB 135 (July, 2021), all Illinoisans can now access hormonal birth control over the counter after undergoing screening by a pharmacist. Implantable Long-acting reversible contraceptives are also available now immediately after birth to all women delivering in Illinois hospitals, helping to prevent unintended pregnancies. Use of long-acting reversible contraceptives (LARCs) increased for all age groups from 2018 to 2019.



## Use of Long-acting Reversible Contraceptive (LARC) Method



The percentage of women who deliver under Medicaid and receive family planning at six months post-delivery vary by birth outcome.<sup>1</sup> Family planning services are important postpartum especially in non-normal births because of high correlations of outcomes in subsequent pregnancies, e.g. VLBW births are highly correlated with a subsequent VLBW birth. Through provision of family planning services postpartum, subsequent unplanned pregnancies can be avoided and birth outcomes can be improved through contraception utilization which allows for greater birth intervals between pregnancies. HFS continues to promote access to contraceptive services.



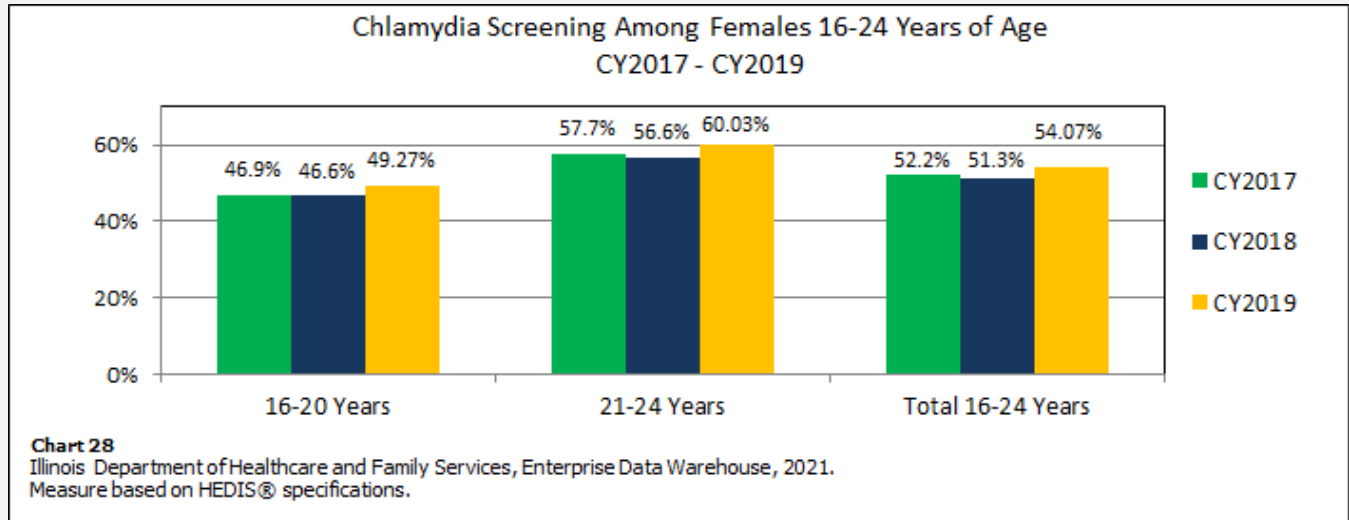
One of HFS’ enhancements to promote more effective family planning and improve inter-pregnancy spacing is to permit separate reimbursement for immediate LARC insertion immediately postpartum in the inpatient hospital setting. In a [provider notice](#) dated July 1, 2015, HFS described the policy by stating: “LARCs, specifically the intrauterine devices (IUDs) and the contraceptive implant, are the most effective reversible forms of female contraception...with high rates of continuation and client satisfaction.” The immediate postpartum period is a perfect opportunity to offer the use of LARCs among women for whom a rapid repeat and unplanned pregnancy carries serious ramifications. Supporting immediate postpartum LARC insertion contributes to optimal pregnancy spacing, thereby improving maternal and infant health and averting potentially substantial financial and social risks.

<sup>1</sup> Source: HFS EDW, Accessed Nov. 2019

## Sexually Transmitted Diseases

### Chlamydia

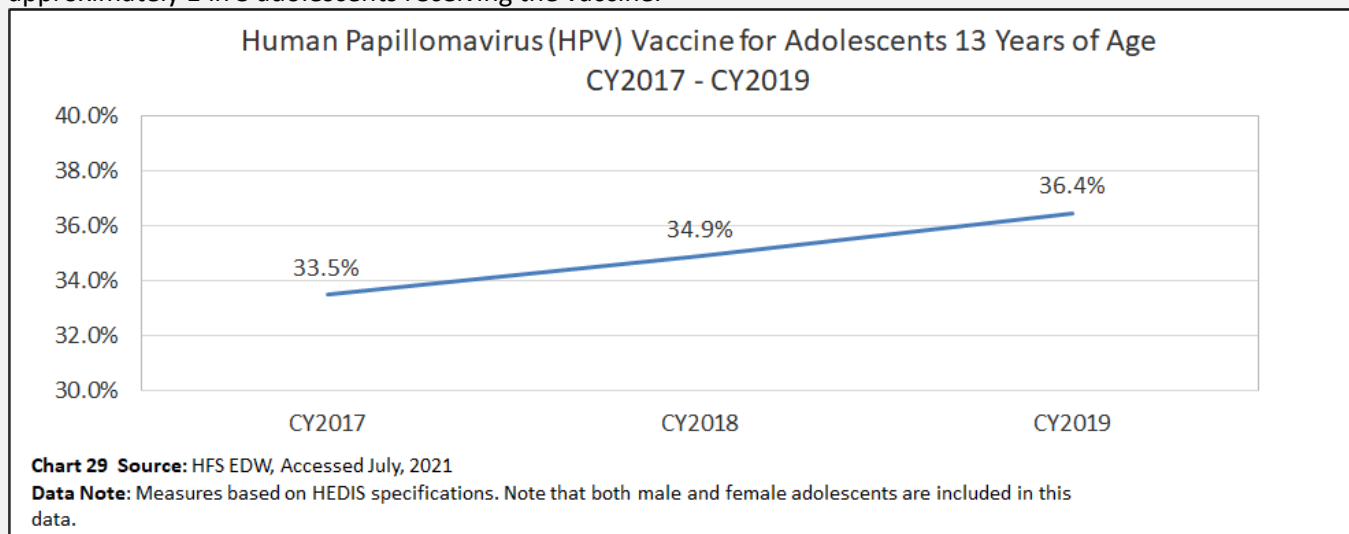
Chlamydia screening rates among 16-24-year-old women on Medicaid have shown an increase. In women, Chlamydia can be asymptomatic. If the infection is left untreated, it may lead to infertility. The infection also presents certain other risks for mom and baby should pregnancy occur.



### Human Papillomavirus (HPV) Vaccine

The Human Papillomavirus (HPV) vaccine is important because it protects against cancers caused by HPV infection. HPV is a very common virus; nearly 80 million people – about one in four – are currently infected in the U.S. About 14 million people, including teens, become infected with HPV each year. Most people with HPV never develop symptoms or health problems. Most HPV infections (9 out of 10) go away by themselves within two years. However, some HPV infections last longer and can cause cancers and other diseases: cancers of the cervix, vagina, and vulva in women; cancers of the penis in men; and cancers of the anus and back of the throat in both men and women. Source: <https://www.cdc.gov/hpv/parents/vaccine.html>.

From CY2018 to CY2019, there has been an increase in the rate of the HPV vaccination among 13-year-olds (34.9% to 36.4%). While the trend shows a positive increase, the rate of vaccination remains low with approximately 1 in 3 adolescents receiving the vaccine.



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## ILLINOIS' COMMITMENT TO PERINATAL HEALTH

In 2018, HFS expanded its managed care program, **HealthChoice Illinois**, to cover all counties in Illinois. The rebooted program was designed to enhance care while managing costs to keep the program sustainable in coming years. Six Medicaid managed care health plans (“health plans”) serve Medicaid customers statewide, including Aetna Better Health (Aetna), Blue Cross Blue Shield of Illinois (BCBSIL) also known as Blue Cross Community Health Plan, CountyCare Health Plan (CountyCare), MeridianHealth (Meridian), Molina HealthCare of Illinois (Molina), and YouthCare.

HFS works with its health plans as well as its sister agencies to promote maternal health and achieve better birth outcomes. This section describes initiatives being undertaken throughout state government to achieve these goals.

### Medicaid Focus on Quality Maternal Care

HFS has developed a transformative person-centered, integrated, equitable Comprehensive Medical Programs Quality Strategy (“Quality Strategy”) designed to improve outcomes in the delivery of healthcare at a community level. As stated in the 2021-2024 Comprehensive Medical Programs Quality Strategy report:

*Our transformation puts a strong new focus on equity, prevention, and public health; pays for value and outcomes rather than volume and services; proactively uses analytics and data to drive decisions and address health disparities; and works to move individuals from institutions to the community in an effort to keep individuals in the least restrictive environment and to keep them more closely connected with families and communities.*

The Quality Strategy includes core measures to aid in the assessment of the quality of care and health outcomes for adults participating in Medicaid and children enrolled in Medicaid and CHIP. The core sets include a range of quality measures encompassing both physical and mental health. HFS includes a number of core set measures in its quality monitoring program and requires the health plans in *HealthChoice Illinois* to report results.

As one component of the Quality Strategy, the **Pay-for-Performance (P4P) Program** was restructured in SFY 2020. Collection of data and calculation of health plan performance against the P4P measures are in accordance with national HEDIS timelines, specifications, and benchmarks. Performance metrics now center on five pillars measured through an equity lens: (1) adult behavioral health, (2) children’s behavioral health, (3) maternal and child health, (4) improving opportunities for people to be treated in their communities, and (5) improving health equities around breast cancer, cervical cancer screenings, high blood pressure, and access to primary care.

The following specific measures related to Perinatal Care were collected and are continuing to be collected during the baseline and subsequent years. This Perinatal Report will include data from the Quality Strategy Program in future years.

#### Quality Measures Related to Perinatal Care

- Cesarean Section Rate for Low-Risk First Births
- Prenatal and Postpartum Care (PPC):
  - Timeliness of Prenatal Care
  - Postpartum Care

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HFS is required by federal law to have an External Quality Review Organization (EQRO). Since June 2002, Health Services Advisory Group, Inc. (HSAG) has served as the EQRO for the Illinois Medicaid Program. The results of HSAG analysis are published annually and are in alignment with the HFS Quality Strategy; for the time period that is the subject of this Perinatal Report, the HSAG report is found here: "[External Quality Review Annual Report State Fiscal Years 2017-2018](#)". That report provides a review of health plan performance in alignment with Quality Strategy goals. However, with *HealthChoice Illinois* fully reorganized in 2018, the HSAG quality metrics related to health plan performance, including those for Perinatal Care, will be more meaningful in future years.

The Medicaid health plans are in the process of developing and implementing quality initiatives related to maternal health and perinatal care. This is a snapshot of initiatives underway:

- Care Coordination Partnering : with a vendor who specializes in engaging high-risk, pregnant members - provides members who have been identified high-risk with a 12-month program that provides remote monitoring via smart phone, weight scale and blood pressure monitor.
- Grant funding in the southern region to address disparities with low birth weight and maternal health including 2 Clinical Therapists to provide counseling during pregnancy and one-year post- partum.

Maternal health partnerships with:

- Women's Care Consulting: Participated in community baby shower providing education to participants; now participating with Chicago Birthworks Collective
  - Melanated Midwives: 6-part education series initiated; 2021 scholarships awarded with ongoing mentorship for scholarship recipients
  - EverThrive Illinois: Launched and completed the train-the-trainer presentations with two community-based organizations and 48 individuals participating in the trainings; also scheduled another cohort of presentations that will take place with three additional community-based organizations
- Quality Improvement Grant for Chicago Family Health to hire Quality Improvement Specialist to map processes and enrollment into prenatal care; analyze quality improvement barriers; and Improve processes and workflows for screenings, immunizations, and prenatal care enrollment

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## Quality Improvements in Birthing Hospitals

The **Illinois Perinatal Quality Collaborative (ILPQC)** seeks to implement obstetric and neonatal quality improvement projects in birthing hospitals to reduce maternal and infant morbidity and mortality. It works closely with the Illinois Department of Public Health Regionalized Perinatal System, state health agencies, associations, and advocacy groups.

ILPQC provides collaborative learning opportunities, rapid-response data, and quality improvement (QI) support to build hospitals' QI capacity to implement evidenced-based practices, to improve outcomes for mothers and newborns, and to address the state's most pressing maternal and infant morbidity and mortality issues across hospitals. ILPQC works with over 95% of birthing hospitals, covering 99% of births, in one or more statewide quality improvement initiatives.

In alignment with the HFS Quality Strategy goals to support vaginal births and reduce Cesarean section rates, ILPQC, working with hospital-based teams, launched a statewide obstetric initiative to implement American College of Obstetricians and Gynecologists (ACOG) and Alliance for Innovation on Maternal Health guidelines. ILPQC is working with hospital teams to implement key quality improvement (QI) in this area.

Further, in alignment with the HFS Quality Strategy goal to improve postpartum access, ILPQC has an Improving Postpartum Access to Care (IPAC) Initiative, launched with 14 hospital teams. This will optimize the health of women by offering and scheduling universal early postpartum visits for a maternal health safety check within two weeks postpartum, in addition to the traditional six-week visit.

In 2020, the Illinois Perinatal Quality Collaborative has begun a Birth Equity Initiative for birthing hospitals to address bias, racism, and social factors influencing maternal health. [This Perinatal Report will report progress on these goals as they are published.](#)

## Services for Women and Infants by Public Health Departments and Community Providers

The **Illinois Department of Human Services (DHS)** Bureau of Maternal Child Health (BMCH) aims to facilitate case management services to pregnant and postpartum women, and infants; and high-risk infants and children up to age 2, statewide, with the goal of reducing infant and maternal mortality and morbidity rates at both the state and local level with an emphasis on addressing racial/ethnic disparities in outcomes. Services must be provided in a culturally sensitive manner and, acknowledge and respect the differences among the populations served (ethnicity, race, religion, age, gender, abilities, language and other characteristics).

**Family Connects** is a program that was originally piloted in piloted in Stephenson County and Peoria. IDPH funded CDPH to form Chicago Family Connects for the Chicagoland area. It is an evidence-based universal approach for supporting newborns and their families, contributing to a healthy and encouraging foundation for future success in the child's life. The first of its kind in the state of Illinois, it provides between one and three nurse home visits to every family with a newborn beginning at about three weeks of age, regardless of income or demographic risk. Using a tested screening tool, the nurse measures newborn and maternal health and assesses strengths, interests and needs to effectively link the family to community resources.



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**Family Case Management (FCM)** is a statewide program that provides comprehensive service coordination to improve the health, social, educational, and developmental needs of pregnant and postpartum women and infants (0 - 12 months) from low-income families in the communities of Illinois

**The High Risk Infant Follow Up Program (HRIF)** is a statewide program for infants and children (ages 0 - 2 years old) who are referred via the Illinois Department of Public Health (IDPH) Adverse Pregnancy Outcomes Reporting System (APORS) or based on assessments done in the FCM program which determines: that the infant has been diagnosed with a serious medical condition after newborn discharge, when maternal alcohol or drug addiction has been diagnosed, or when child abuse or neglect has been indicated based on investigation by the Illinois Department of Children and Family Services. The primary goals of HRIF are to: minimize disability in high-risk infants by early identification of possible conditions requiring further evaluation, diagnosis, and treatment; promote optimal growth and development of infants; teach family care of the high-risk infant; and Decrease the stress and potential for abuse in the family setting of the high-risk infant.

## Addressing Maternal Morbidity and Mortality

The **Illinois Department of Public Health (IDPH)** released Illinois' first Maternal Morbidity and Mortality Report in October 2018. The report identified statewide trends in maternal deaths and provided recommendations to help prevent maternal mortality. The report was the culmination of more than a year of work done by two IDPH committees, the Maternal Mortality Review Committee (MMRC), established in 2000, and the Maternal Mortality Review Committee for Violent Deaths (MMRC-V), established in 2015. In April 2021, IDPH released Illinois' second Maternal Morbidity and Mortality Report 2016-2017.

The 2021 report states that:

- An average of 75 women die each year while pregnant or within one year of pregnancy.
- More than 4 out of 5 pregnancy-related deaths were preventable.
- Black women are most likely to die from pregnancy-related causes.
- The leading cause of maternal mortality is now mental health conditions.

**The Task Force on Infant and Maternal Mortality Among African Americans** was created by the state legislature under Public Act 101-0038 and charged with identifying key strategies to decrease infant and maternal mortality among African Americans in Illinois. The task force has three subcommittees that include members from the other state workgroups and advisory committees and seeks to align efforts across groups and with the Illinois Title V program (Maternal and Child Health Services Block Grant).

## Innovations to ImPROve Maternal OuTcomEs in Illinois (I PROMOTE-IL)

Innovations to ImPROve Maternal OuTcomEs in Illinois (I PROMOTE-IL), based at the University of Illinois at Chicago (UIC), is collaborating with IDPH's Office of Women's Health and Family Services/Title V on a multi-faceted initiative aimed at improving maternal health and reducing maternal mortality and severe maternal morbidity during pregnancy and through one year postpartum. It is funded by a \$9.5 million, five-year grant from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS).

I PROMOTE-IL will: 1) establish a maternal health taskforce; 2) improve statewide maternal health data and surveillance; and 3) implement five innovative training and service delivery projects to improve maternal health care in Illinois. These projects include: a) provider training on obstetric hemorrhage and maternal hypertension and protocols for pregnant and postpartum women seeking care in the emergency department;

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b) implementing a birth equity initiative; c) training home visitors on women’s health needs during pregnancy and postpartum; d) training obstetric providers on screening and treatment of perinatal mental and behavioral health disorders; and e) designing and implementing an innovative two-generation medical home for postpartum care. A robust performance monitoring plan is proposed to document progress toward improving maternal health outcomes and reducing disparities over five years in Illinois.

The funding also will facilitate the design and implementation of a first-of-its-kind, two-generation postpartum clinic and research and training center at UIC. The clinic will serve postpartum women and their newborns simultaneously. Nationally, more than 90% of newborns receive routine care. However, postpartum women are much less likely to receive postpartum care, particularly women with low incomes.



## TECHNICAL NOTES

**Results** – As general changes in the healthcare environment (Healthcare Effectiveness Data and Information Set [HEDIS], conversion to ICD-10, etc.) and updates to the methodologies used to prepare the analyses in each report cycle, the data presented herein is not always comparable to previous [perinatal reports](#). End users of this data seeking to compare it to prior year reports should do so with caution, as the data presented reflects a moment in time and not a longitudinal study.

**Data Charts** - Unless otherwise noted, the data charts are based on data from the Illinois Department of Healthcare and Family Services' (HFS) Enterprise Data Warehouse (EDW 2019) derived from HFS' paid claims and HFS-contracted Managed Care Organization (MCO) encounter data. Please keep the following in mind:

- This data is matched with shared data from Illinois Department of Human Services' (DHS) Cornerstone System and Illinois Department of Public Health's (DPH) Vital Records for CY2018 through CY2019 (see below summary for Vital Records).
- The reporting period for each measure varies per analysis and typically covers a two-year trend period.
- Unless otherwise noted, covered deliveries are those where the recipient had full benefits on the date of delivery.
- The charts and graphs show what is currently known about HFS births, including demographics, health care utilization, and outcomes.

**Births / Babies** – Data using the terms “births,” “baby,” or “babies” selects infants with full eligibility with a birth date in the specified calendar year. Additionally, births are identified using selected diagnosis related group (DRG) codes and diagnosis codes occurring within the specified calendar year.

**Birth Outcome** – Data using the term “Birth Outcome” selects birth weight and death year date fields from Vital Records. The classification hierarchy describes how attributes are analyzed, regardless of whether those attributes are populated with data. Using the available information Low Birth Weight (LBW), Very Low Birth Weight (VLBW), Infant Mortality (IM), Other Non-Normal DRG, and Normal DRG are categorized into mutually exclusive groups using the following hierarchy:

- If there is a death date, the Birth Outcome is set to: IM. and no further analysis is conducted (e.g. checking birth weight)
- If birth weight is between 0 – 1,500 grams, then Birth Outcome is set to: VLBW.
- If birth weight is between 1,501 – 2,500 grams, then Birth Outcome is set to: LBW.
- If none of the above conditions are true and if there is a claim with a non-normal DRG<sup>2</sup> within first year of life, then Birth Outcome is set to: Other Non-normal DRG.
- If none of the above conditions are true and there is a claim with a normal DRG, then Birth Outcome is

<sup>2</sup> Non-normal DRGs include: 985, 385, 986, 386, 987, 387, 388, 989, 389, or 390

set to: Normal.

- If none of the above conditions are true, then the 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.

**Costs** – HFS has transformed its delivery system so that approximately 80% of the Medicaid population are enrolled in an MCO. In the MCO model, the capitation payment made to the MCO represents HFS' monthly payment for the Medicaid client. HFS retains a withhold percentage of total capitation rates (Withhold) each month to ensure effective healthcare delivery. MCOs may earn a percentage of the Withhold based on performance and reporting as measured by both HFS and HEDIS® quality metrics. HFS' [managed care contract](#) is available on its website.

**Deliveries** – Identified using All Patients Refined Diagnosis Related Groups (APR-DRG) diagnosis and procedure codes associated with the mother<sup>3</sup>.

- Diagnosis codes are from HEDIS® specifications defining deliveries.
- Beginning July 2014, consistent with HFS hospital rate reform, deliveries are identified using APR-DRG codes: 540-542 and 560.
- Multiple-day deliveries: In claims data, deliveries can 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 only those individuals with full benefits on date of delivery.

**Family Planning** – This report includes contraception measures based on U.S. Centers for Disease Control and Prevention specifications included in the [Maternal and Infant Health \(MIH\) Initiative Contraceptive Care Measures](#).

- In prior reports, services were selected by specific diagnosis codes when they occur at any time in the year after delivery date.

**Level III Deliveries** – Deliveries occurring at a hospital identified with Provider Specialty Code 015.

**Level III Prenatal Services** – Identified when “Prenatal Services” occur at a Level III facility.

**Low Birth Weight (LBW)** – Identified when birth weight is between one and 2,500 grams.

- The exception is that LBW is between 1,501 and 2,500 grams when included in charts focused on birth outcomes that include the group, “Very Low Birth Weight” to ensure that each birth outcome group is mutually exclusive. See also the “Birth Outcome” note.

**Medicaid (or Medicaid-enrolled women)** – As used in this report including the data chart titles, this term is broadly inclusive of all those receiving medical services and reimbursed by HFS and is not indicative of a specific

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<sup>3</sup> DRG Codes: 540-542, 560

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coverage category (e.g., Title XIX).

**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 (mother) 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. DPH’s 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.

**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 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.

**Very Low Birth Weight (VLBW)** – Identified when birth weight is between one and 1,500 grams. See also the “Birth Outcome” note.

**Vital Records** – Birth and Death File data collected by DPH. The data is 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 CY2018 – CY2019 are certified by DPH.

