Perinatal Report 2024

HFS
Illinois Department of
Healthcare and Family Services

Illinois Department of Healthcare and Family Services

JB Pritzker, Governor
Theresa Eagleson, Director


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A LETTER FROM THE DIRECTOR

Governor Pritzker and Honorable Members of the General Assembly:

I am pleased to present the 2024Perinatal Report required by 305 ILCS 5/5-5.24. This and previous reports from the Illinois Department of Healthcare and Family Services (HFS) may also be found on the HFS Website.

Since 2004, these reports have been a valuable guide for improving birth outcomes in Illinois.

As in years past, I am pleased to highlight recent areas of progress.
Illinois has fully implemented 12-month Medicaid postpartum coverage for all women. The state became the first in the nation in 2021 to announce this expansion. This expansion was a specific recommendation of the 2018 iteration of the IDPH Maternal Morbidity and Mortality Report . It will strengthen continuity of care to improve health outcomes for new mothers and is aimed at reducing the rate of maternal morbidity and mortality, including significant health disparities for Black women during the postpartum period.

In November 2022, HFS also launched the HFS Family Planning (FP) Program, a new category of medical coverage. The program offers medical coverage for reproductive health and family planning related services for eligible Illinois residents, regardless of age or gender, who are not enrolled in full benefit Medicaid coverage. Eligible individuals can receive family planning and related services. Examples of covered services include an annual preventive exam, all Food and Drug Administration (FDA)-approved methods of contraception, and permanent methods of birth control (tubal ligation or vasectomy).

To help measure progress, the HFS State Quality Strategy is tracking metrics that specifically examine maternal child outcomes. Additionally, the Pay for Performance (P4P) program has been incentivizing the state's Managed Care Organizations to focus on maternal health. One example of success has been a 10% increase of prenatal/postpartum follow-up visits in the past three years, as measured by HEDIS (Healthcare Effectiveness Data and Information Set).

The Covid pandemic presented challenges for all aspects of healthcare, but advances in prenatal and perinatal care were made during these past years. We are committed to building on those successes for mothers and families throughout Illinois.

Sincerely,
Theresa Eagleson,
Director

INTRODUCTION

Legislative Mandate

The goal of Public Act 93-0536 was to improve birth outcomes for all births covered in the Medicaid program administered by the Illinois Department of Healthcare and Family Services (HFS). HFS is required to report to the General Assembly on the effectiveness of perinatal health care services for IL Medicaid recipients biannually.

To achieve this goal, the statute authorizes HFS to reimburse for the following services:

- Perinatal healthcare services that specifically target prevention of low birthweight infants,
- Services to reduce neonatal intensive care hospital admissions, and
- Services to promote overall perinatal health.

Services that qualify for reimbursement include:

- Comprehensive risk assessments for pregnant women
- Postpartum care for women up to 12 months after delivery
- Family Planning
- Childbirth support
- Psychosocial counseling
- Treatment and prevention of periodontal disease
- Other support services that have been proven to improve birth outcomes

OVERVIEW

The 2024 HFS Perinatal Report summarizes data and provides updates on HFS initiatives undertaken with its partners to improve birth outcomes for women and infants while working to reduce the associated personal, medical, and social costs. Medicaid provides coverage for approximately 50% of all Illinois births and approximately 90% of Illinois teen births. HFS remains encouraged that through current endeavors and the prioritization of improving birth outcomes and ongoing partnerships, there can be a positive effect on the lives of women, children, and Illinois families. Some of HFS' ongoing initiatives include:

- Efforts to reimburse for covered services to include Doulas, Home Visitors and Lactation Consultants.
- Introduction of the HFS Family Planning Program, providing reproductive and family planning services to eligible Illinois residents regardless of age.
- Healthcare Transformation Collaborative (HTC) is an initiative designed to encourage collaborations of healthcare providers and community partners to improve healthcare outcomes, reduce healthcare disparities, and realign resources in distressed communities throughout Illinois. In particular, the program seeks to increase access to community-based services, preventive care, obstetric care, chronic disease management, specialty care and address the social determinants of health in these communities.

Note: While many women receiving perinatal services are covered by Medicaid, there is a small number who receive care provided from other state-funded sources within the Department of Healthcare and Family Services (HFS). For this reason, some data is noted as "HFS" births instead of "Medicaid" births.

MATERNAL HEALTH DEMOGRAPHICS PROVIDED BY THE DEPARTMENT OF HEALTHCARE AND FAMILY SERVICES

Deliveries

There has been a steady decrease in deliveries covered by Medicaid. On the national level, births appear to be decreasing with changes in overall birth trends which include parents postponing pregnancies and choosing to have fewer children. (See article: Births Decline In Most States Continuing A Long-Term Trend)

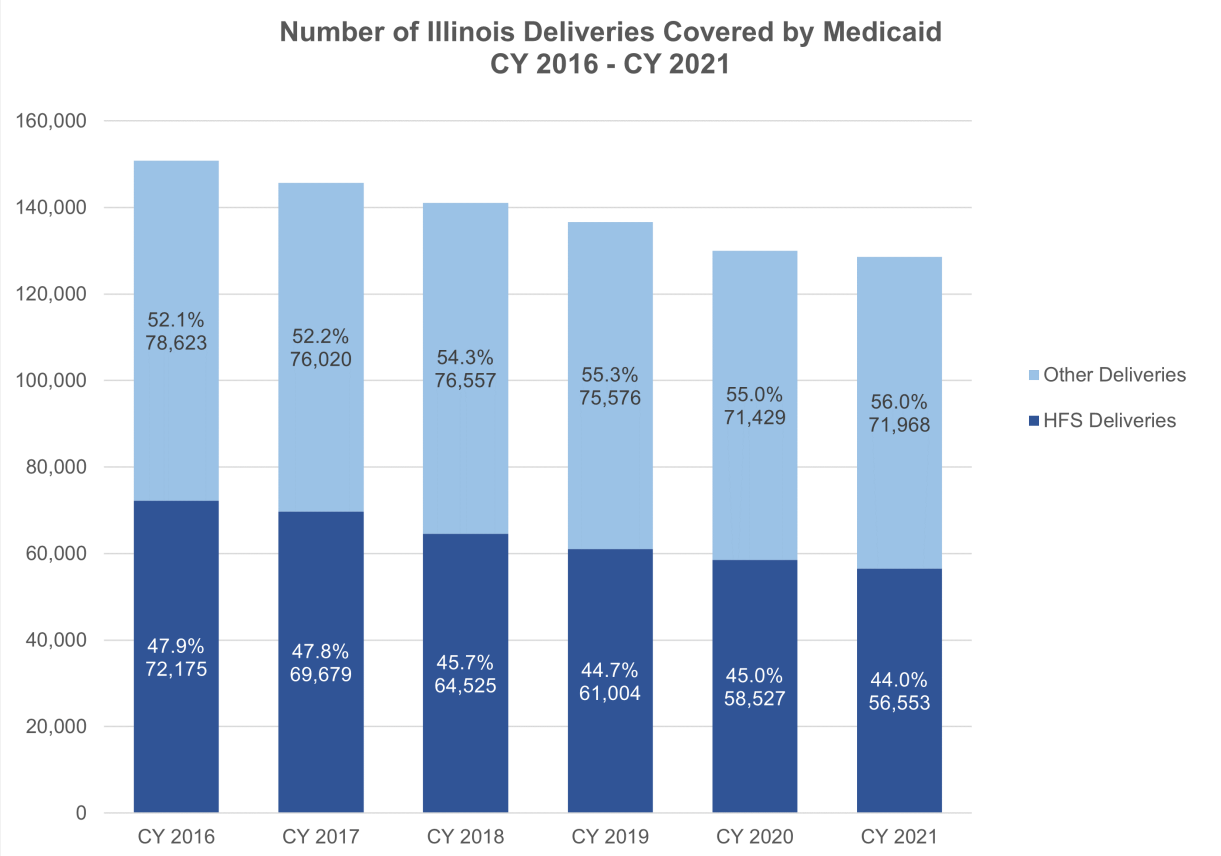


Chart 1
Source: HFS EDW, Accessed October 2023

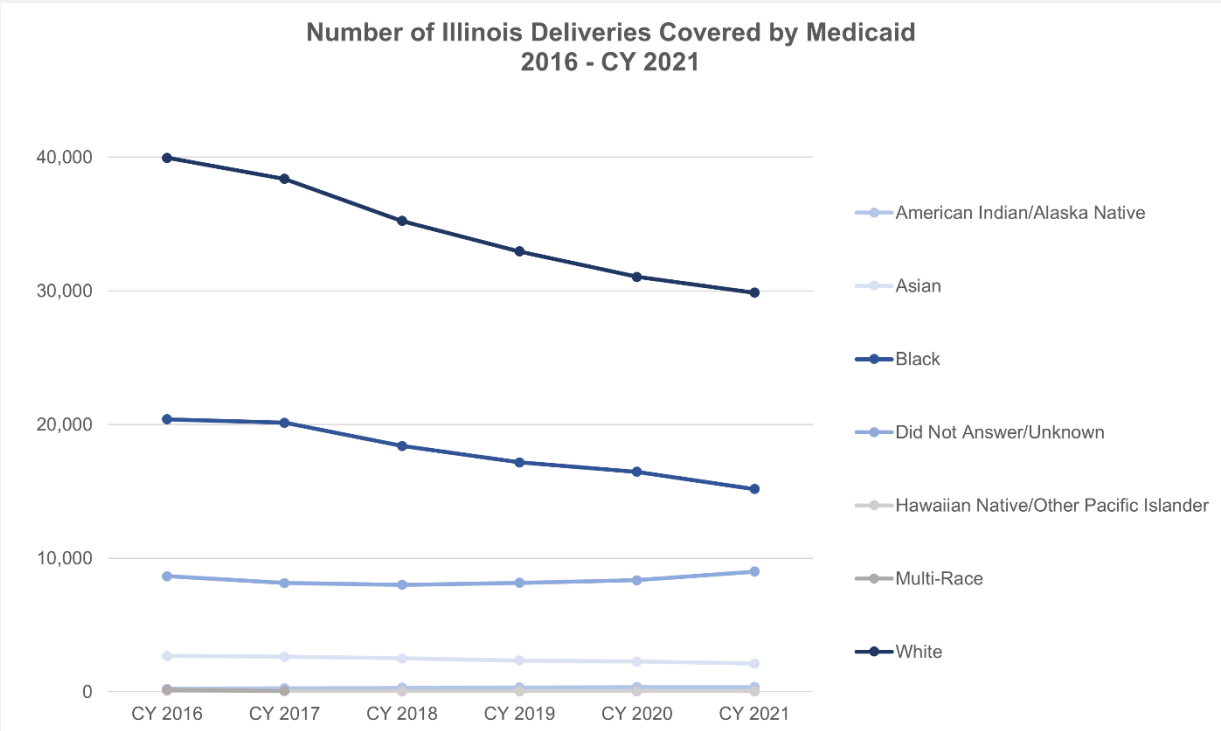


Chart 1
Source: HFS EDW, Accessed October 2023
Data Note: HFS covered teen deliveries are those where the recipient had full benefits on date of delivery. Multi-Race data N/A for years 2018-2021.

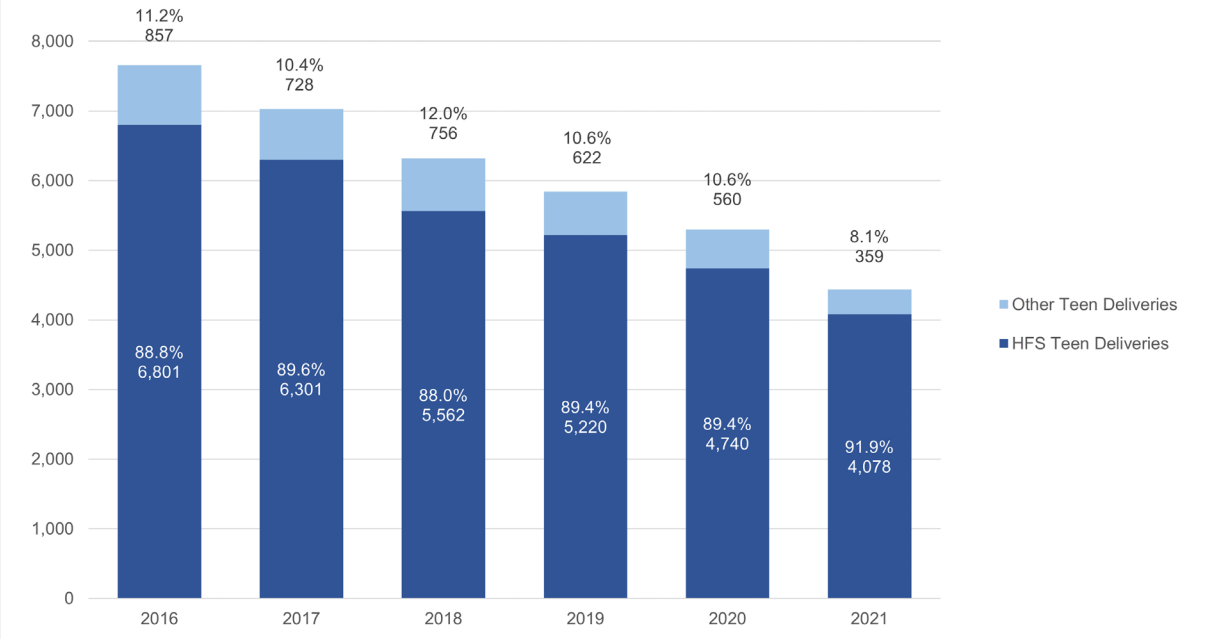


Chart 2
Source: HFS EDW, Accessed October 2023
Data Note: HFS covered teen deliveries are those where the recipient had full benefits on date of delivery.

Enrollment in Medicaid Before and After Delivery

A healthy pregnancy begins with a healthy mother. For those without health insurance and are not enrolled in Medicaid, ensuring early enrollment into prenatal care can be key. Access to proper resources as soon as it becomes known that there is a pregnancy is crucial and that can begin with a visit to see a doctor of Obstetrics and Gynecology (Ob/Gyn).

Illinois provides presumptive eligibility for all women upon becoming pregnant and is proud to be the first state in the nation to have passed legislation providing twelve months of postpartum coverage for women after delivery. There was a rise in continued enrollment early after the legislation was passed in 2021 and with the changes in coverage during the pandemic. Postpartum enrollment after 9 months increased from 13% in 2019 to 80% in 2021. Challenges in both mental and physical health continue for women well after delivery and throughout the first year with “53% of deaths occurring between 7 days and 1 year after pregnancy” (CDC), so it is important to ensure that women have coverage for the duration of that time.

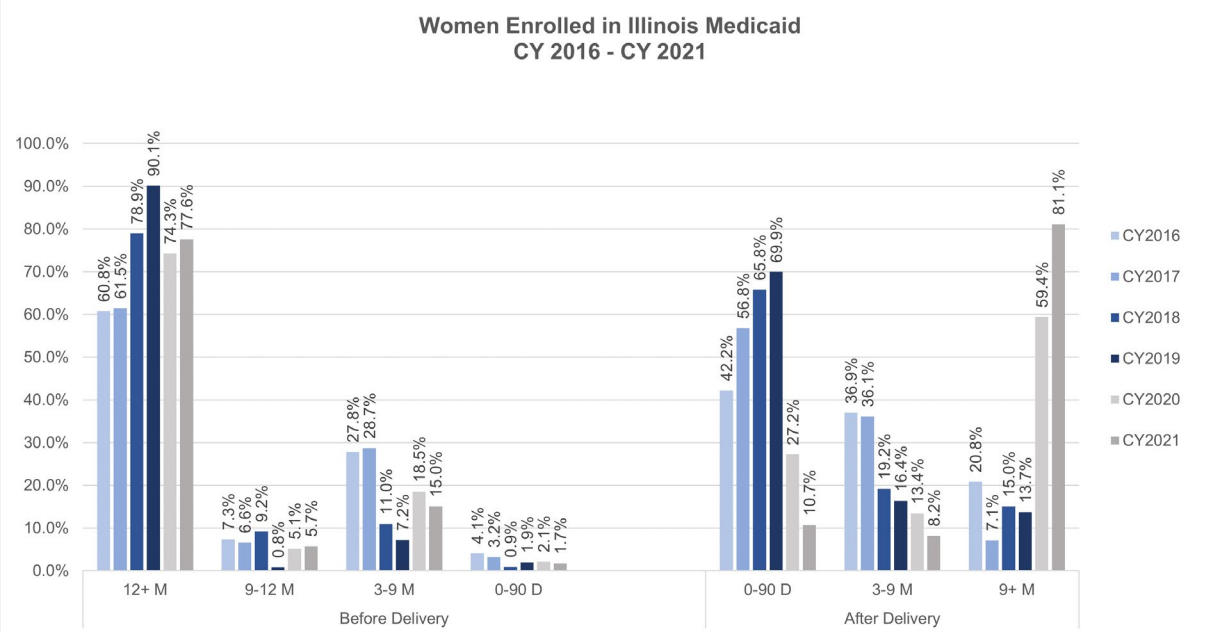


Chart 3
Source: HFS EDW, Accessed October 2023

Poor birth outcomes are defined as low birthweight (under 2500 grams), very low birthweight (under 1500 grams), birth defects, or infant mortality and demise. The following chart demonstrates the relationship between timing of women’s enrollment in Medicaid and those who had poor birth outcomes.

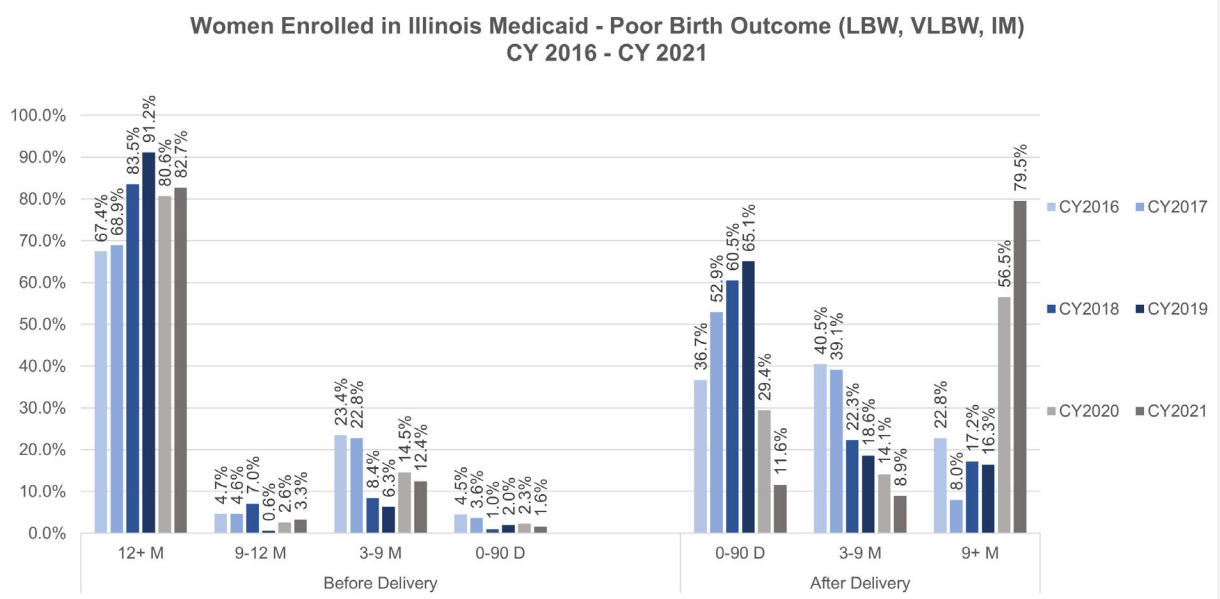


Chart 12
Source: HFS EDW, Accessed October 2023
Data Note: Data are among matched Mom/Baby pairs. Denominator excludes unknown birth outcome. Selected outcomes include VLBW, LBW, & IM.

Delivery Methods

The overall number of cesarean section births and vaginal births statewide have stayed relatively unchanged. Since 2018, we have maintained a cesarean birth rate for nulliparous singleton vertex term (NSVT) births or uncomplicated, single, full-term first-time births under the Health People 2030 goal of 23.6%.

There is a small trend change among Black women in that Cesarean births have increased by approximately 1.5% over the most recent 2-year span. Although there has been a rise in the number of Cesarean births among women identifying as Hawaiian Native/ Other Pacific Islanders, the total number of women in this category is relatively low the trend should be viewed with caution. Cesarean births should be performed in circumstances only where medically necessary.

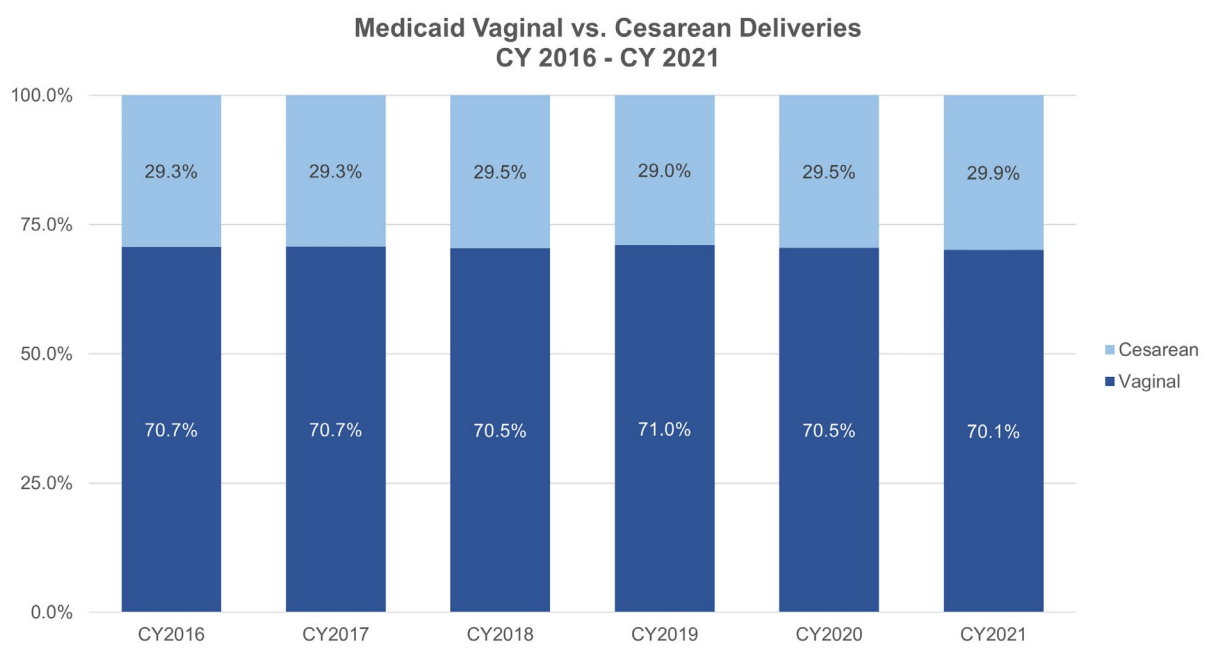


Chart 4
Source: HFS EDW, Accessed October 2023
Data Note: Vital Records for CY2016-CY2021 are certified. Deliveries where the method of delivery is unknown were excluded from the total.

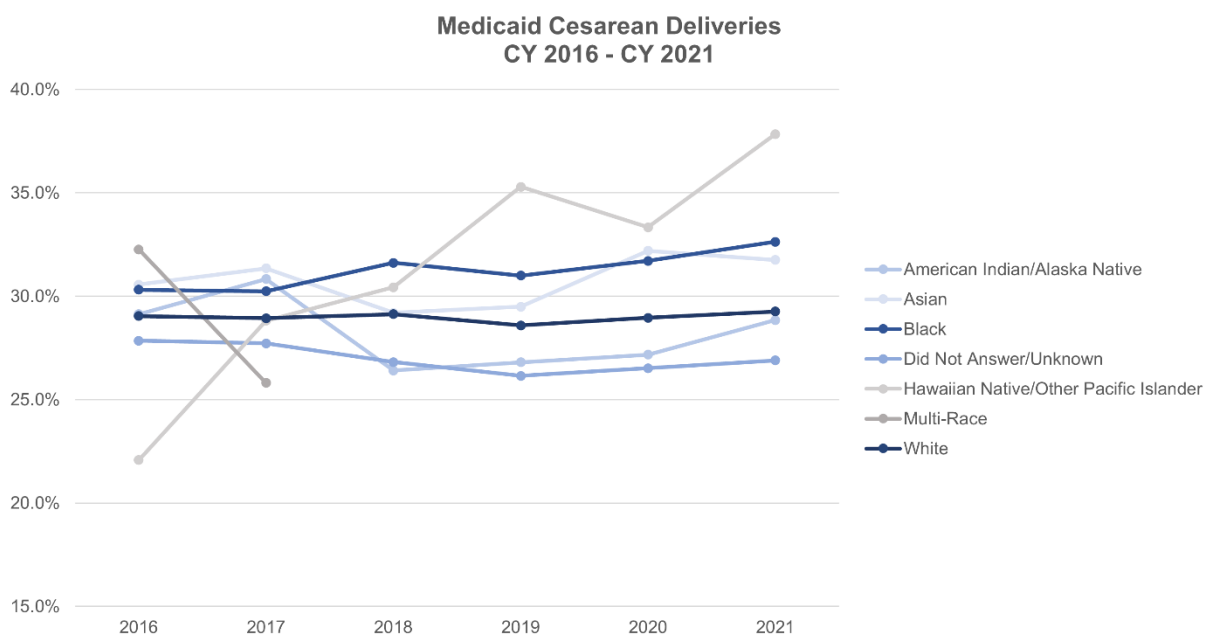


Chart 4
Source: HFS EDW, Accessed October 2023
Data Note: Vital Records for CY2016-CY2021 are certified. Deliveries where the method of delivery is unknown were excluded from the total. Multi-Race data N/A for years 2018-2021.

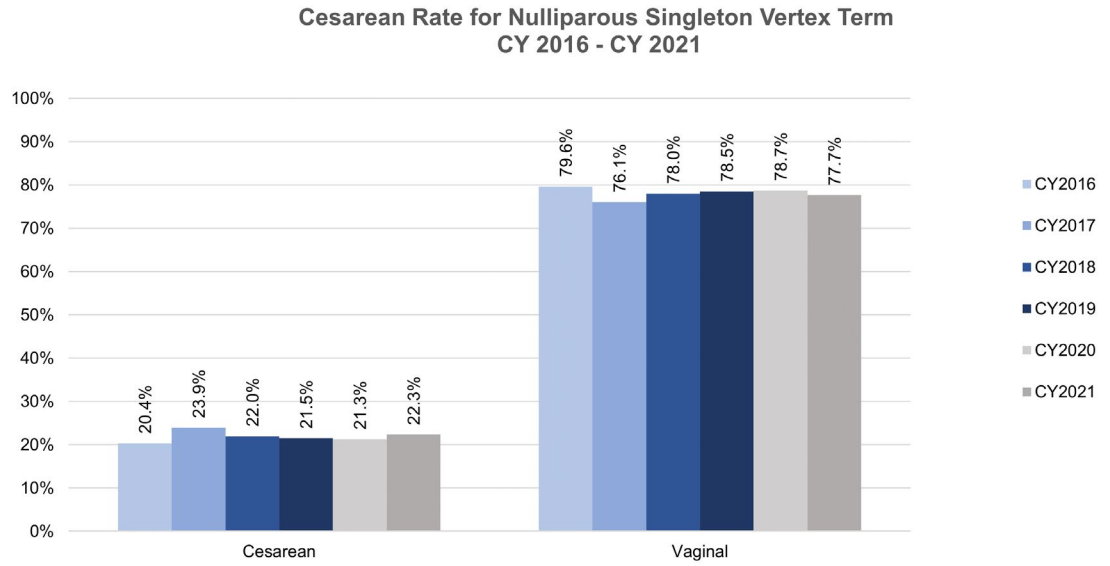


Chart 5
Source: HFS EDW, Accessed: October 2023
Data note: Deliveries where the method of delivery is unknown were excluded from the total.

Medicaid Deliveries at Level III Facilities

Many hospitals have 3 Perinatal Levels of Care: Level I, Level II and Level III with the Level III hospitals providing care to high-risk pregnancies. Delivery percentages for low birthweight and very low birthweight infants as well as those infants in the "non-normal DRG (diagnosis-related group)" categories all trended upward over the 6-year period between 2016 and 2021. (See technical notes for more complete definition of outcome types.)

There has also been a rise in the overall number of infants with poor outcomes whose mothers received prenatal care at Level III hospitals. Level III perinatal centers have the ability to provide the broadest array of services for the highest acuity pregnancies to include the various outcomes for women undergoing cesarean births. The following are charts that break down deliveries at Level III hospitals by each birth outcome.

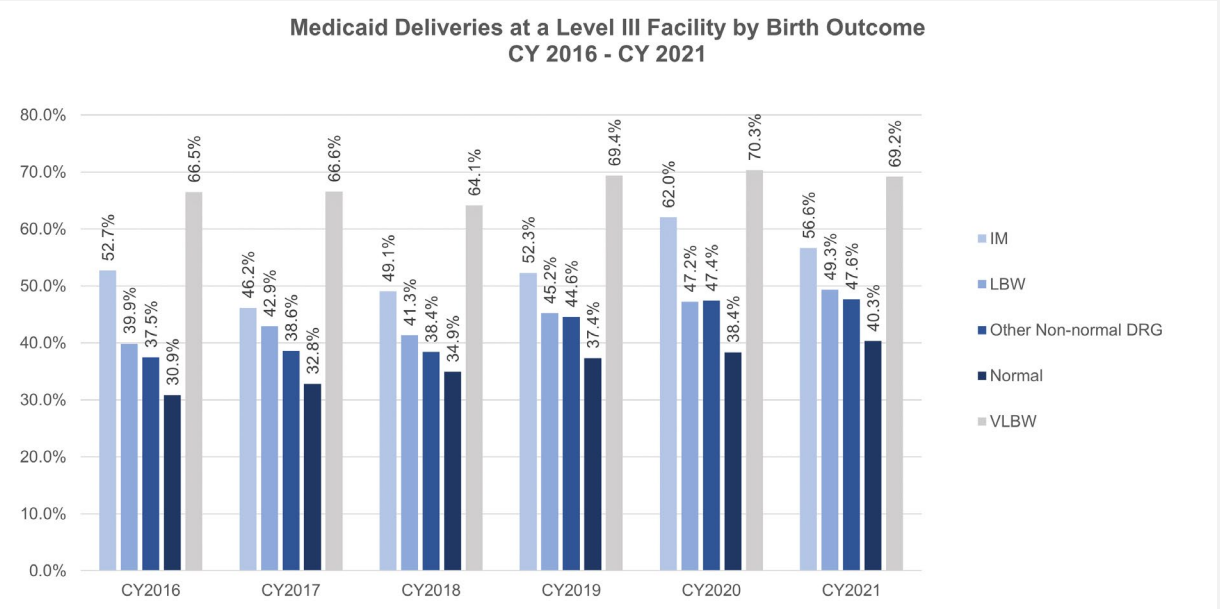


Chart 10
Source: HFS EDW, Accessed October 2023
Data Note: Percentages calculated within each birth outcome type (e.g., percentage of all LBW births receiving the service). Data are among matched Mom/Baby pairs. LBW is not inclusive of VLBW. Births where the outcome was unknown were excluded.

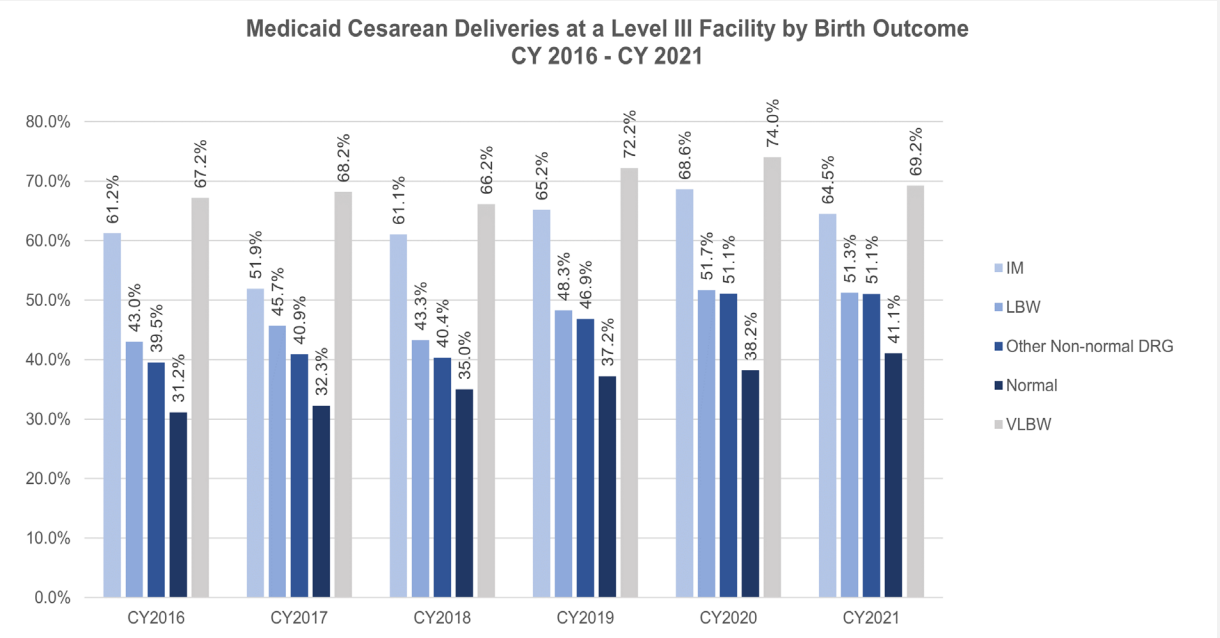


Chart 11
Source: HFS EDW, Accessed October 2023
Data Note: Vital Records matched birth/death data to identify infant mortality (IM) are not available. Percentages calculated within each brith outcome type (e.g., percentage of all LBW births receiving the service). Data are amoung matched Mom/Baby pairs. LBW is not inclusive of VLBW. Births where the outcome was unknown were excluded.

Prenatal and Postpartum Care

Timely prenatal and postpartum care has improved significantly over the course of the past 3 years. The Prenatal metric measures the percentage of deliveries in which women had a prenatal care visit in the first trimester, on or before their enrollment date or within 42 days of enrollment in Medicaid. Prenatal care visits improved from approximately 51% to 65 %. The postpartum care metric measures the percentage of deliveries in which women had their postpartum visit on or between 7 and 84 days after delivery. Postpartum visits improved from 56% to nearly 67%. This data coincides with the initiation of the healthcare plans, HealthChoice Illinois and the maternal child quality measure implementation.

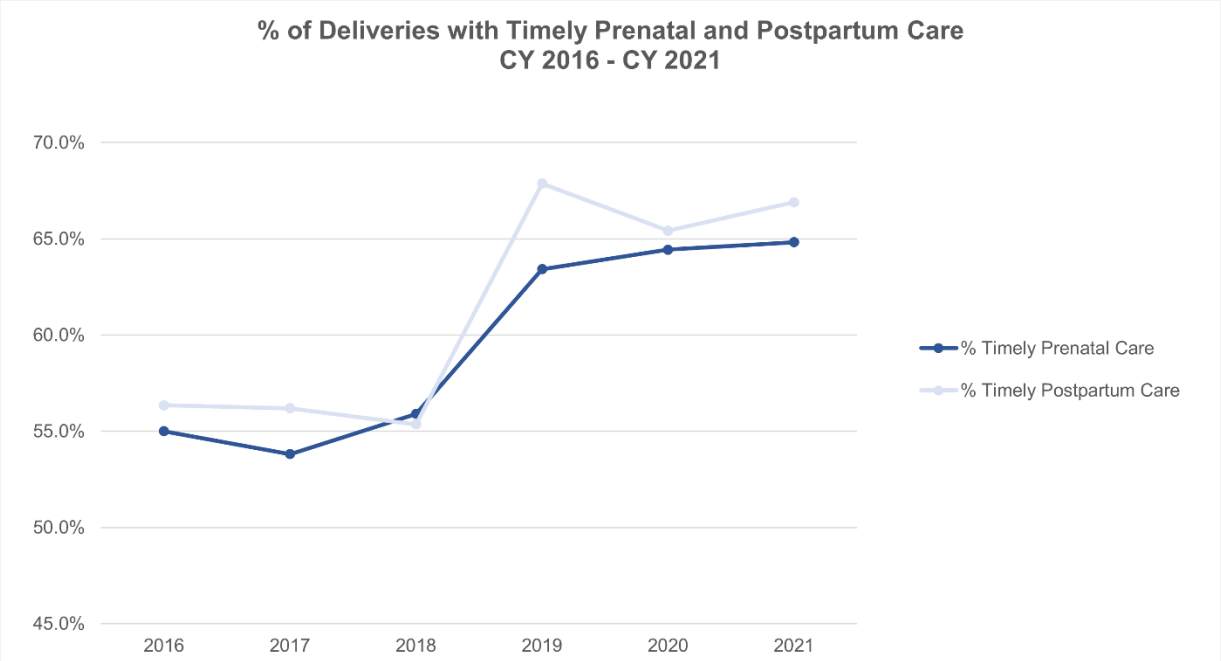


Chart 16
Source of data: HFS EDW. Accessed October 2023 Based On HEDIS® PCP measure.
Data Note: Prenatal - number of those who received prenatal care in the first trimester or within 42 days of enrollment; Postpartum - number of those who received a postpartum care visit between 21 and 56 days after delivery.

Mental Health

Perinatal Depression Screening

HFS has seen declining rates in both prenatal and postpartum depression screenings, despite adding opportunities for providers to screen at newborn visits. Although decreasing numbers during 2020 and 2021 could be related to the pandemic, it remains very concerning that the numbers continue to decrease.

To improve the number of depression screenings, the department has added both prenatal and postpartum depression screenings as pay-for-reporting (P4R) measures within our quality metrics. The goal is to work with the Managed Care Organizations (MCOs) to find ways to make perinatal depression screenings part of each perinatal visit.

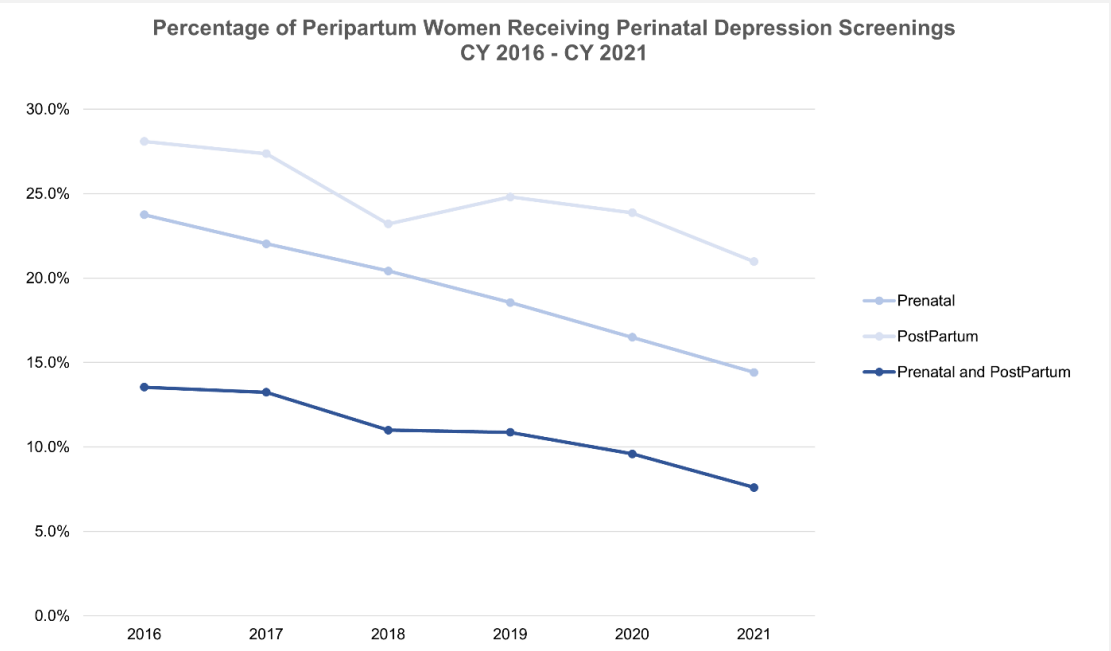
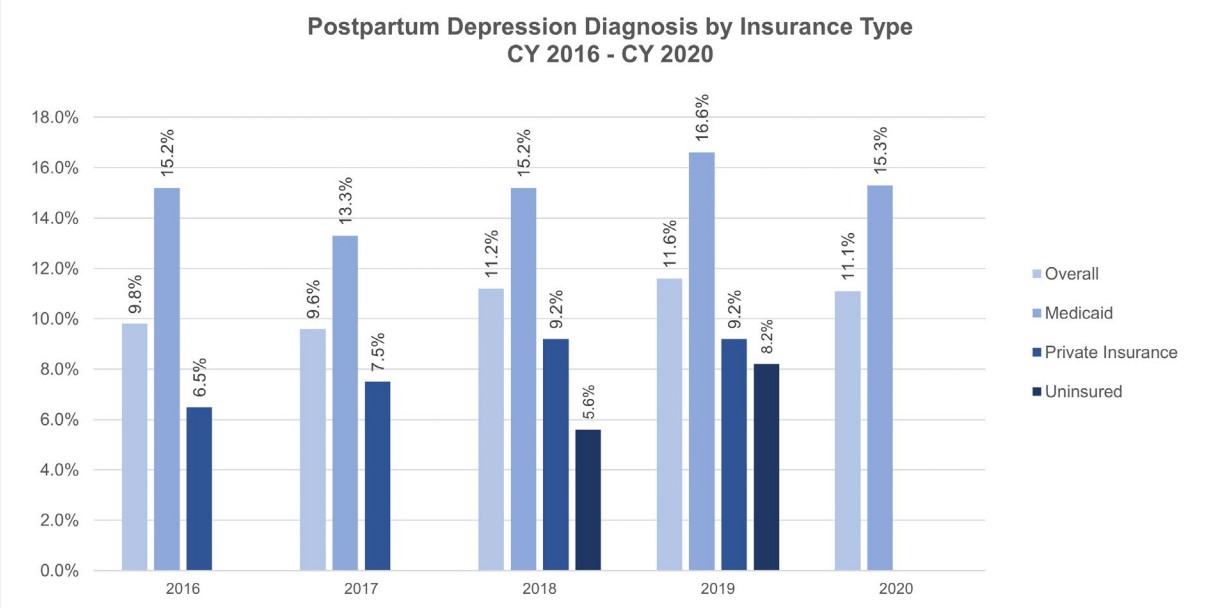


Chart 20
Source: HFS EDW, Accessed October 2023
Data Note: MEASURE 105: This measure gives the percentage of women receiving Prenatal and/or Postpartum Depression Screenings. It counts deliveries when the woman was continuously enrolled for 42 days before delivery through 56 days after delivery. Dual Medicare/Medicaid recipients are excluded.

In examining postpartum diagnosis data, some trends have begun to emerge that may assist us in targeting interventions. Postpartum depression appears to be higher among women on Medicaid, women giving birth to low birthweight infants (versus normal weight infants), and women in the 20-24-year age range. The following data is from the PRAMS CDC report on all women, versus those on Medicaid.



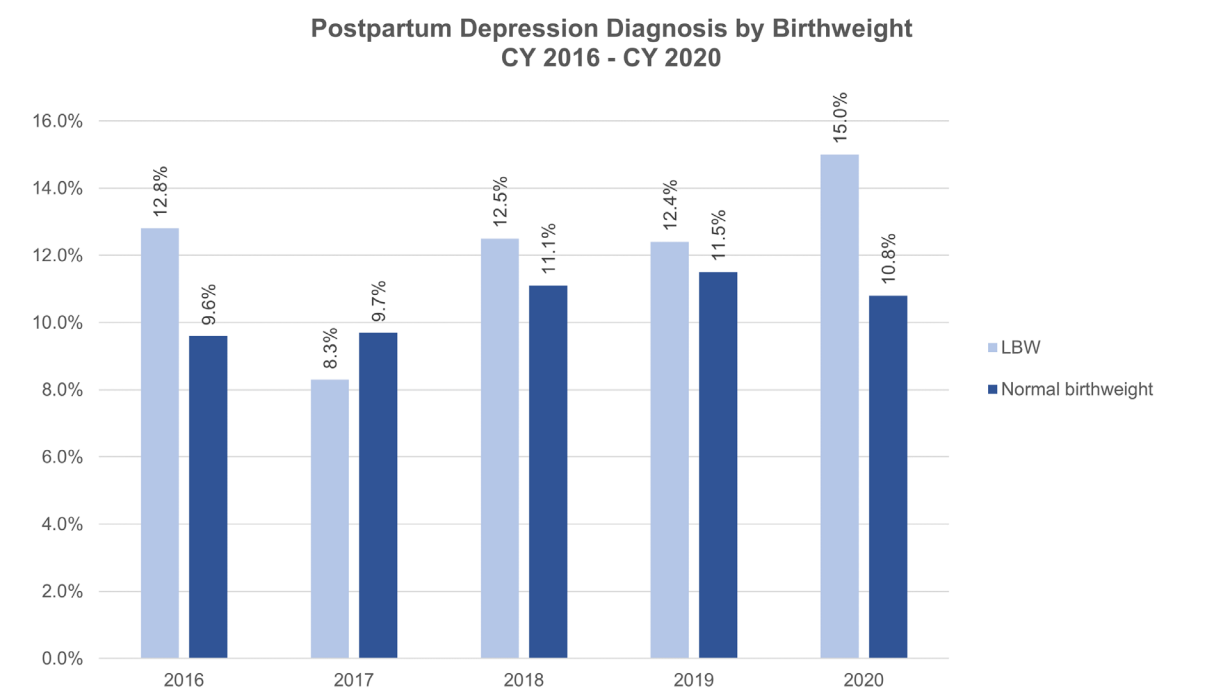


Chart 19
Source: Illinois Department of Public Health PRAMS Survey, October, 2023
Note Pregnancy Risk Assessment Monitoring System (PRAMS) data, CY2018 - CY2020 -- Indicates denominator <30 respondents or numerator <6 respondents

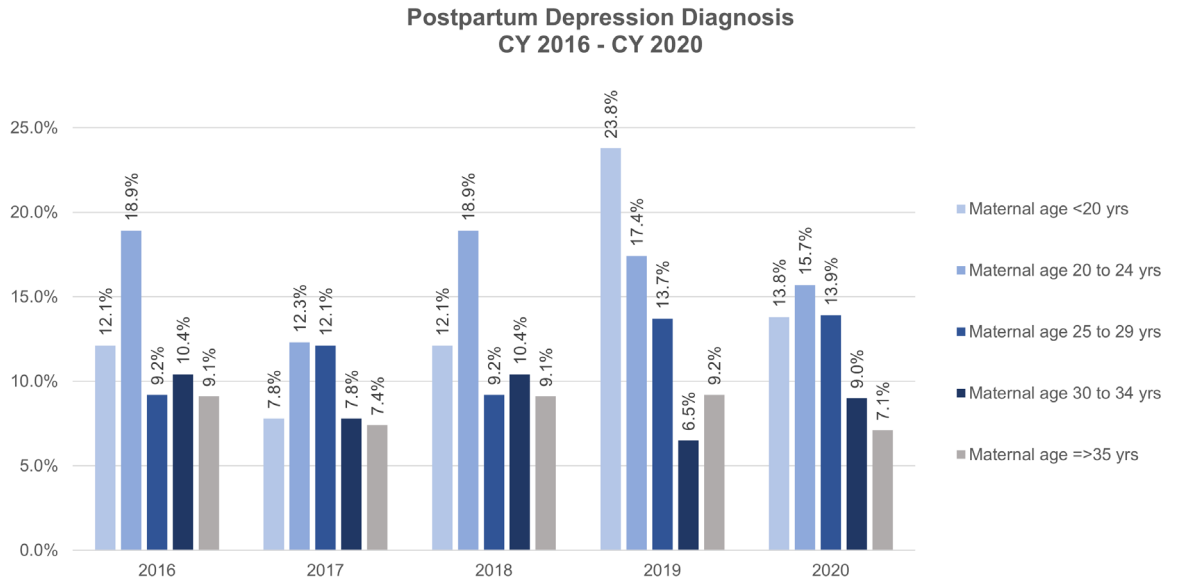


Chart 19
Source: Illinois Department of Public Health PRAMS Survey, October, 2023
Note Pregnancy Risk Assessment Monitoring System (PRAMS) data, CY2018 - CY2020 -- Indicates denominator <30 respondents or numerator <6 respondents

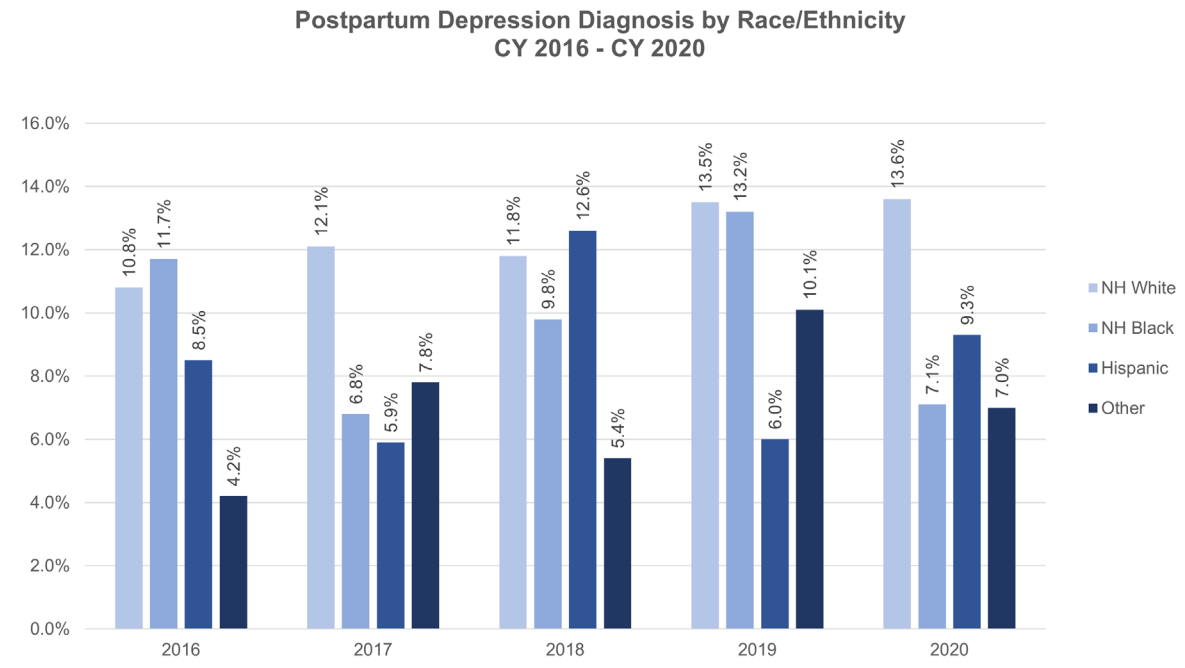


Chart 19
Source: Illinois Department of Public Health PRAMS Survey, October, 2023
Note Pregnancy Risk Assessment Monitoring System (PRAMS) data, CY2018 - CY2020 -- Indicates denominator <30 respondents or numerator <6 respondents

Tobacco Use

Tobacco uses in women whose insurance coverage was provided by Medicaid during the 3-month period before pregnancy and the last 3 months of pregnancy, decreased between the years of 2018-2020. HFS did not have access to data for 2021 at the time of this report. Use of tobacco and exposure to second-hand smoke during pregnancy can increase the risk of premature birth, birth defects, and Sudden Unexplained Infant Death or SUID (formerly known as SIDS).

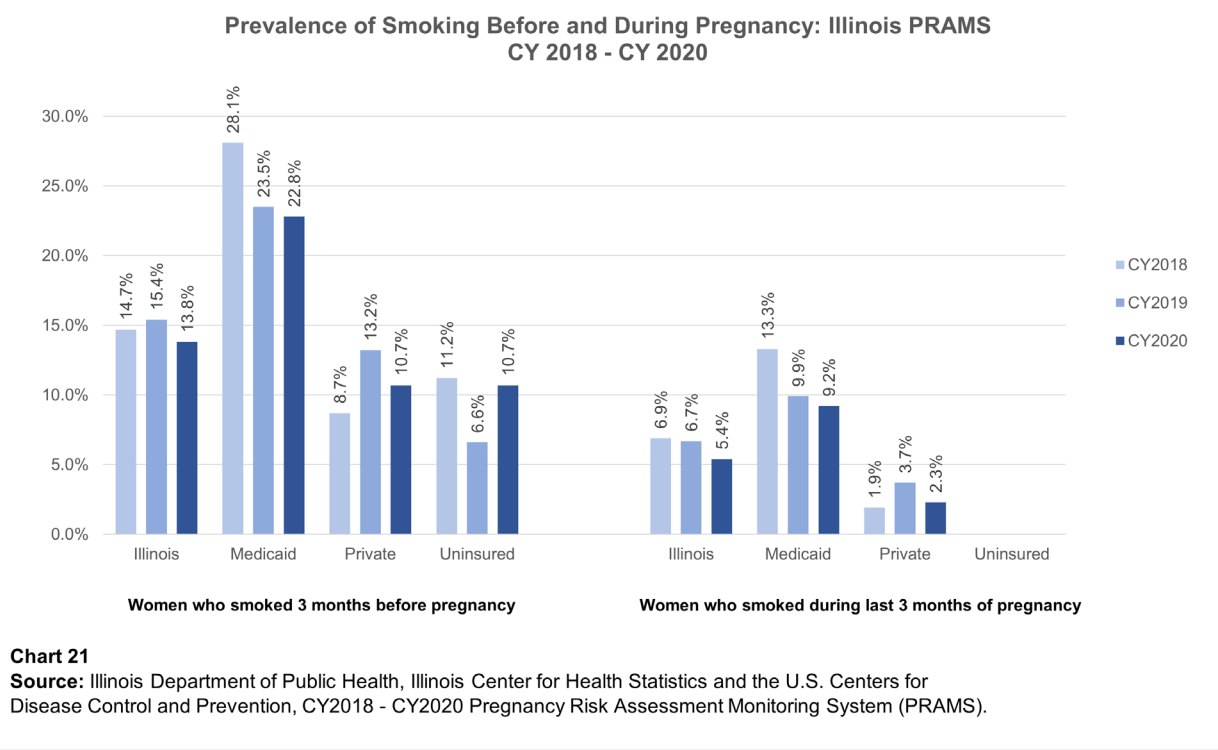


Chart 21
Source: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, CY2018 - CY2020 Pregnancy Risk Assessment Monitoring System (PRAMS).

Alcohol Use

While use of alcoholic beverages 3 months before pregnancy remained essentially steady from 2018-2019, it decreased by 5-6% in 2020 for Medicaid recipients. Given that it frequently takes 4-10 weeks for a woman to find out she is pregnant, abstaining from alcohol is extremely important. Consuming alcohol during pregnancy can lead to premature birth, low weight births, birth defects, miscarriage, stillbirth, and fetal alcohol spectrum disorder.

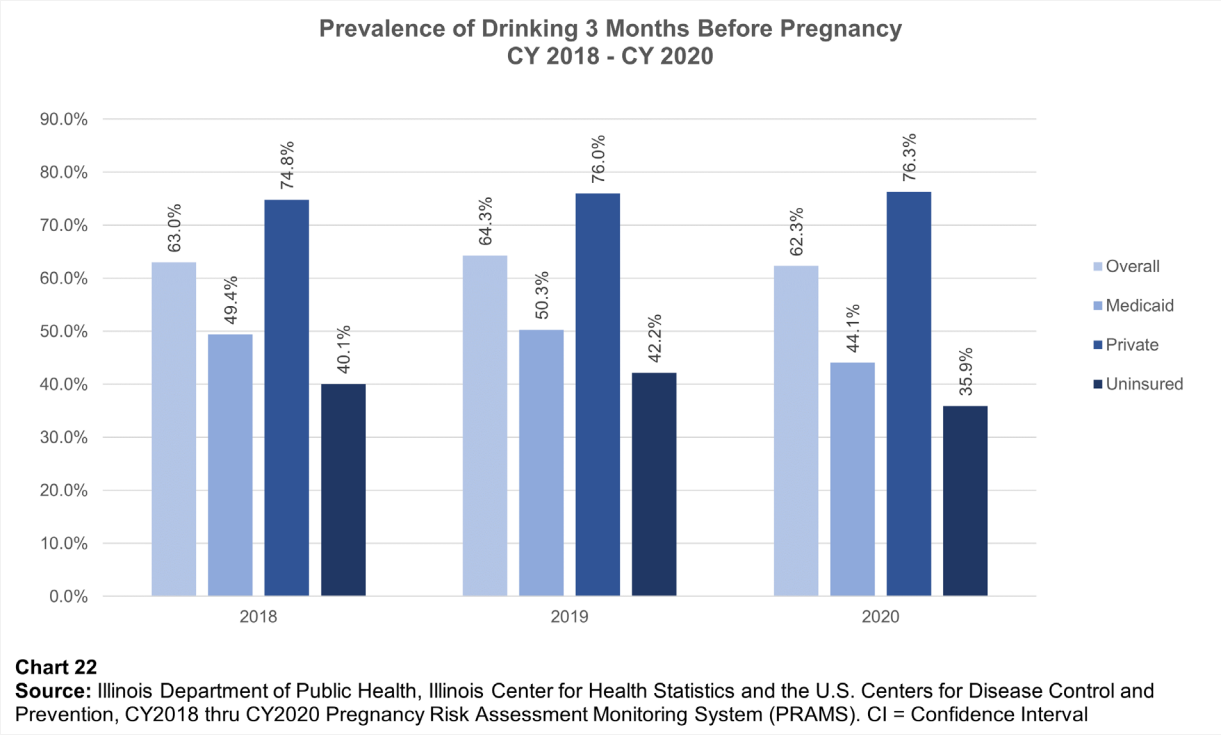
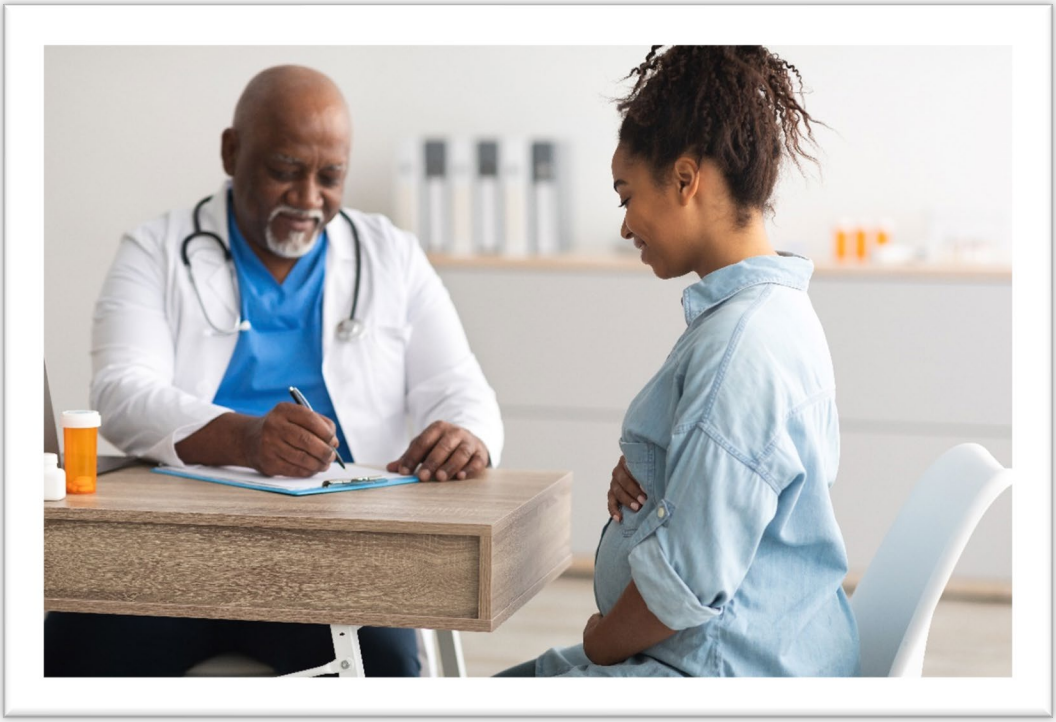


Chart 22
Source: Illinois Department of Public Health, Illinois Center for Health Statistics and the U.S. Centers for Disease Control and Prevention, CY2018 thru CY2020 Pregnancy Risk Assessment Monitoring System (PRAMS). CI = Confidence Interval

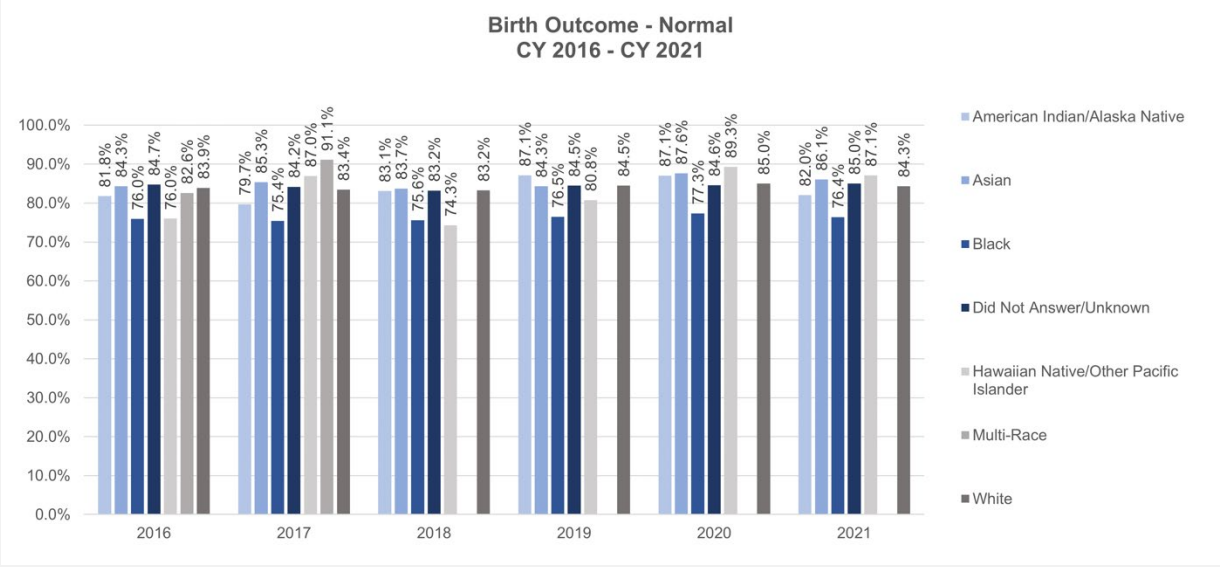


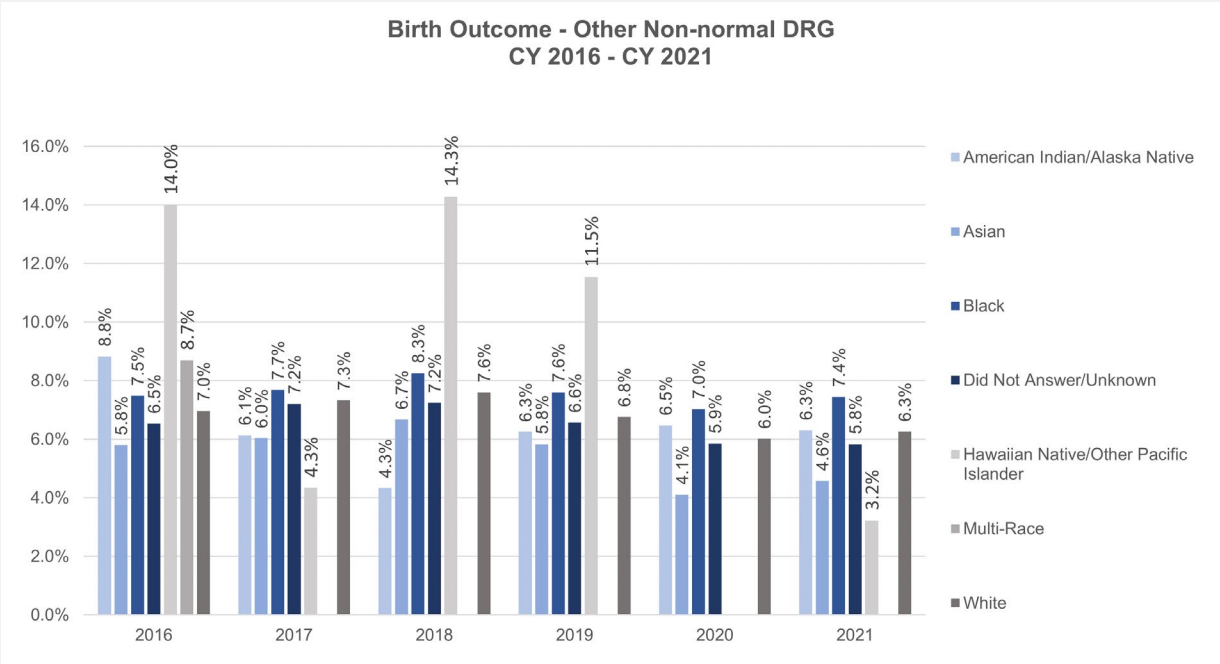
BIRTH OUTCOMES

Nationwide, racial disparities in infant mortality, low birthweight and very low birthweight infants have been a very concerning trend. HFS continues to work alongside its partners to find ways to improve outcomes for all mothers and infants to provide a healthier start to newborn life in Illinois.

Infant Mortality

While there has been marked improvement in infant mortality in 2019, as we entered 2020 and 2021 the statistics increased slightly for all races but most markedly for non-Hispanic African American and Hispanic infants. Infant deaths among those listed as “non-Hispanic Other” also increased significantly during this time.





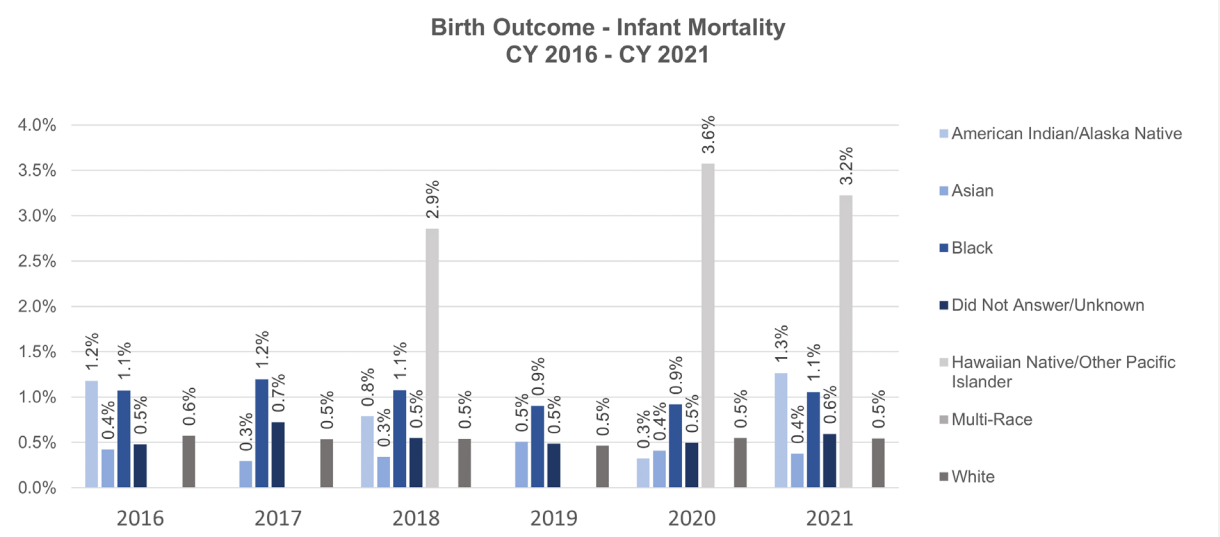
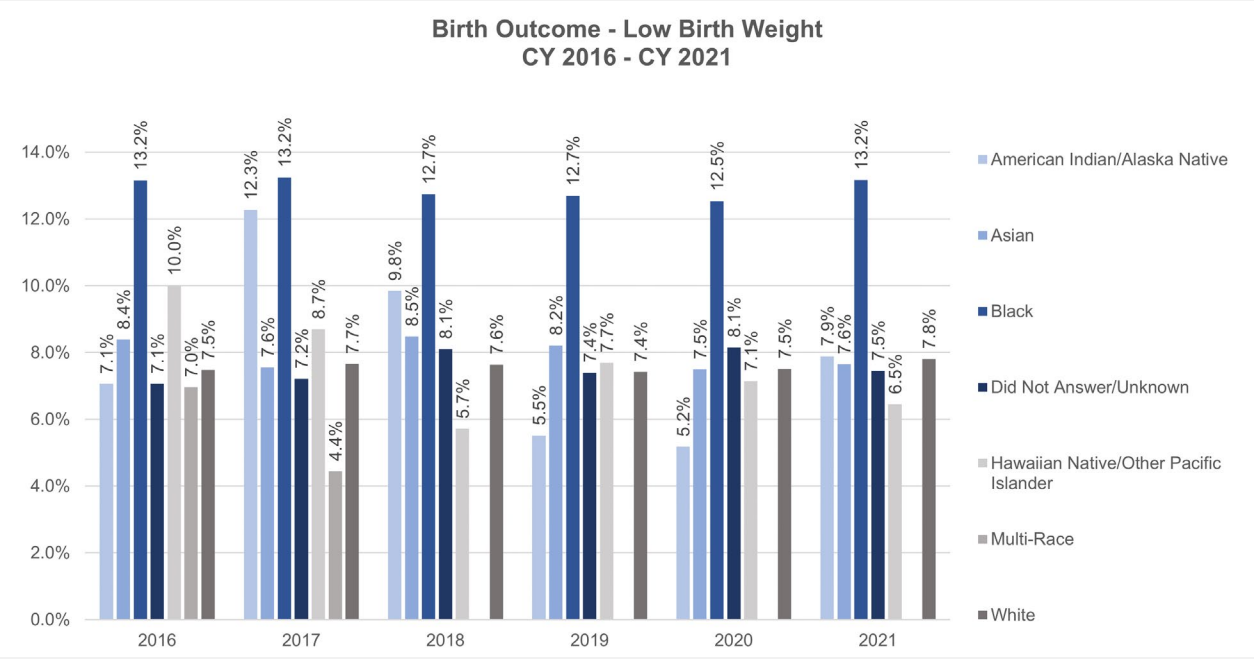


Chart 6
Source: HFS EDW, Accessed October 2023
Data Note: Vital Records for CY2016-CY2021 are certified. LBW is not inclusive of VLBW. Births where the outcome was unknown were excluded from the total. Multi-Race data N/A for years 2018-2021.

Low and Very Low Birthweight

HFS continues to see a very slow rise in the overall rate of low birthweight infants born to mothers on Medicaid. The largest rise is among mothers identifying as Black, from 11.0% in 2016 to 12.0% in 2021. Low birthweight is defined as “an infant born weighing 2.5 kg or 5lbs. 8oz.” Very low birthweight is defined as “an infant weighing less than 1.5 kg or 3lbs. 4 oz.” Both categories have potential for risks after delivery involving difficulty breathing, bleeding in the brain, feeding difficulties, retinopathy of prematurity (a disease of the eyes that affects some premature babies), and other complications.



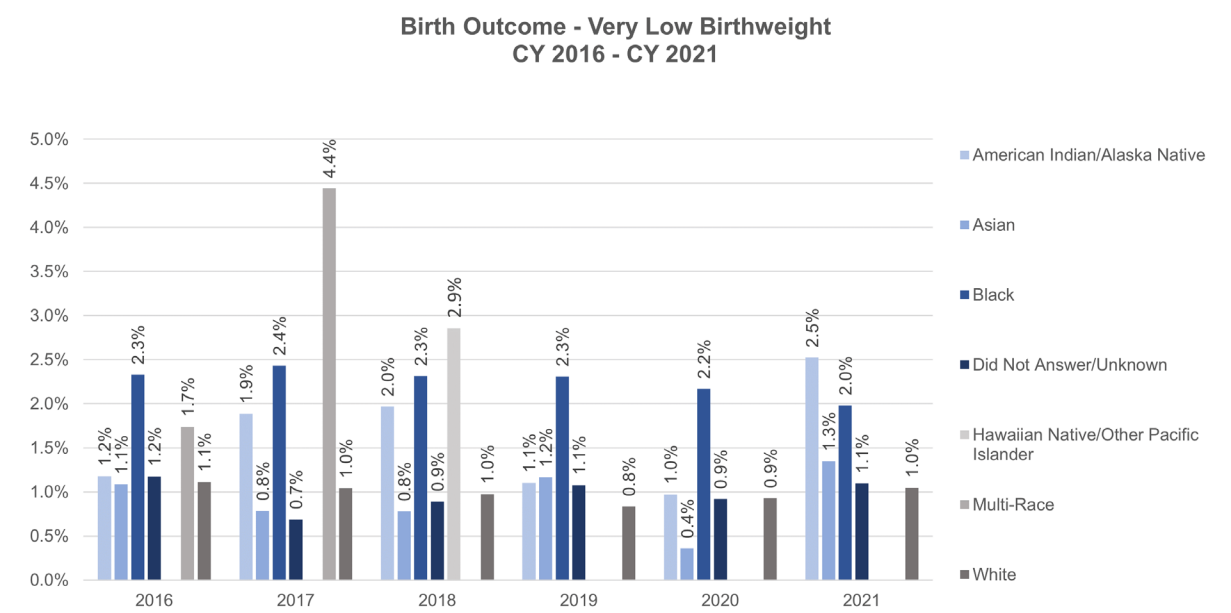


Chart 6
Source: HFS EDW, Accessed October 2023
Data Note: Vital Records for CY2016-CY2021 are certified. LBW is not inclusive of VLBW. Births where the outcome was unknown were excluded from the total. Multi-Race data N/A for years 2018-2021.

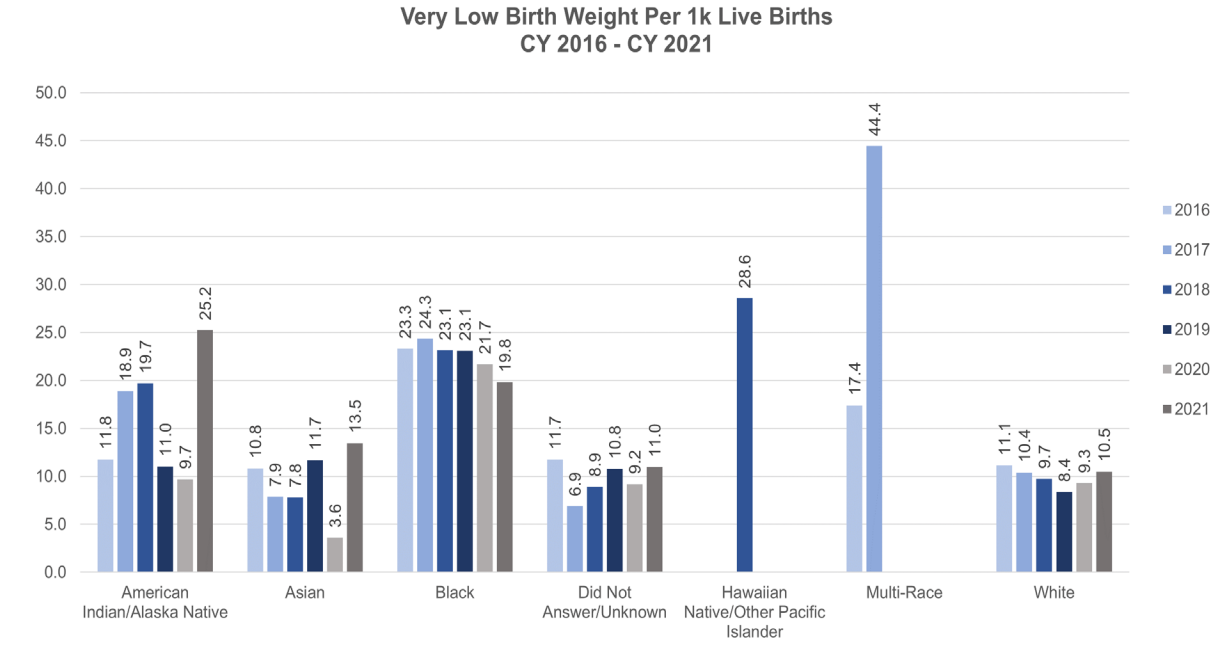


Chart 7
Source: HFS EDW, Accessed October 2023
Data Note: Denominator excludes unknown birth outcome. Multi-Race data N/A for years 2018-2021.

Birth Costs

Births with poor birth outcomes comprise just less than 20% of all HFS-covered births and account for most Medicaid birth costs.

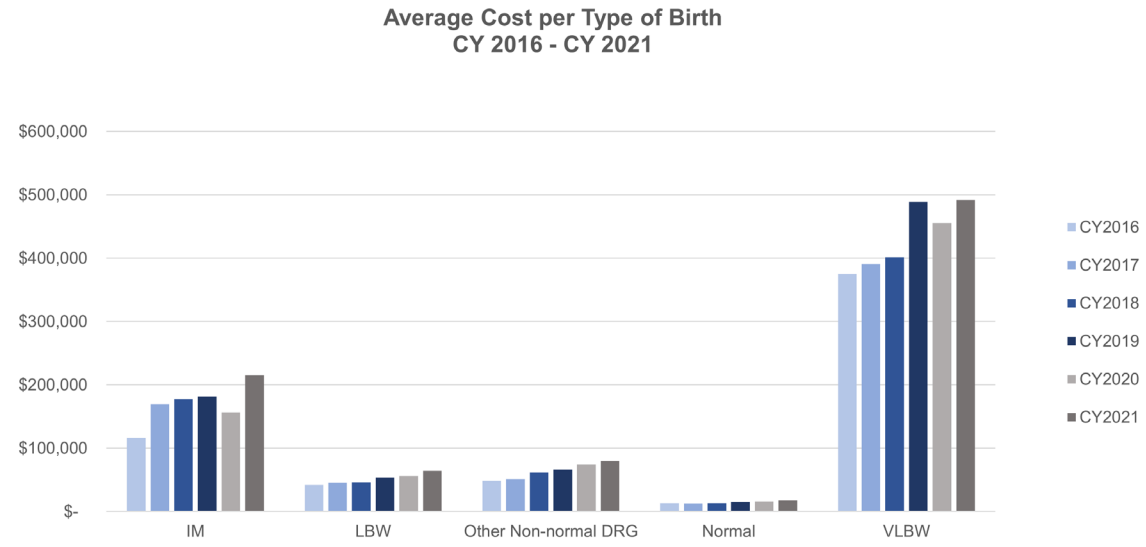


Chart 14
Source: HFS EDW, Accessed October 2023
Data Note: Data are among matched Mom/Baby pairs. Postpartum includes costs from discharge date through day 56, post-delivery. LBW is not inclusive of VLBW. Costs includes Mom's Prenatal, Delivery, Postpartum Costs, and Baby's 1st Year of Life Costs.

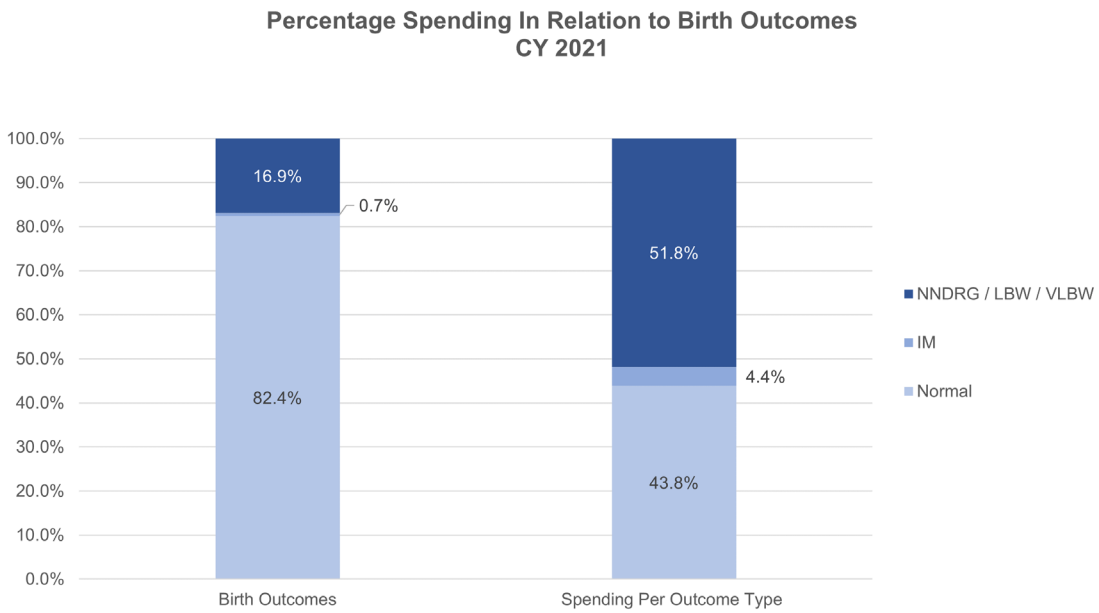


Chart 13
Source: HFS EDW, Accessed October 2023
Data Note: Data are among matched Mom/Baby pairs. Postpartum includes costs from discharge date through day 56 post delivery

FAMILY PLANNING

Birth Spacing

It is recommended that women space pregnancies at least 18 months apart to allow the body and mind time to recuperate. The data demonstrates that most Medicaid recipients spaced subsequent births at least 2 years apart.

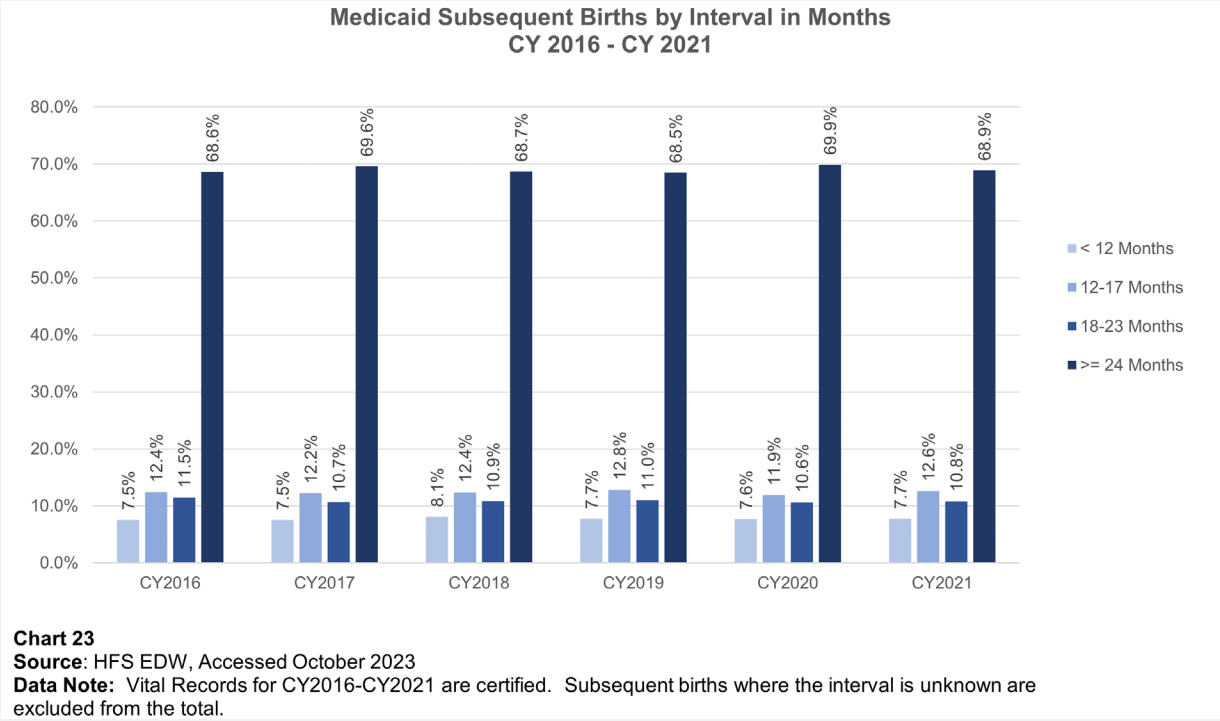


Chart 23
Source: HFS EDW, Accessed October 2023
Data Note: Vital Records for CY2016-CY2021 are certified. Subsequent births where the interval is unknown are excluded from the total.

Contraceptive Usage

In the Medicaid Managed Care Program, HFS continues to ensure that each MCO has family planning protocols, including a comprehensive list of FDA-approved contraceptives on its formulary. Illinoisans can access hormonal birth control either over the counter undergoing screening by a pharmacist or now via telehealth appointment with a women's health provider. Implantable Long-Acting Reversible Contraceptives (LARCs) are also available now immediately after birth to all women delivering in Illinois hospitals, helping to prevent unintended pregnancies. Use of LARCs increased for all age groups from 2018 to 2019, but we did see a decrease through 2020-2021 for both use of LARCs and other types of contraceptives.

The HFS Family Planning Program, working together with the IDPH Family Planning Program, also ensures that all who qualify have access to all forms of contraception and counseling to promote the healthiest possible outcomes for their reproductive needs. This includes contraception, counseling, STI treatment, and abortion services. Understanding the importance of postpartum family planning services, we aim to educate mothers on the importance of pregnancy spacing as it applies to future outcomes, particularly for those who may have had complications with previous pregnancies or infants with poor outcomes. Through the provision of partum services, subsequent unplanned pregnancies can potentially be avoided, and birth outcomes can be improved through contraception use and better pregnancy spacing. HFS has added a metric to its pay-for-reporting measures for the HCI managed care organizations toward an end goal of further improving outcomes in LARC and other effective contraceptive use for those who choose to use them.

Use of Long-acting Reversible Contraceptive (LARC) Method

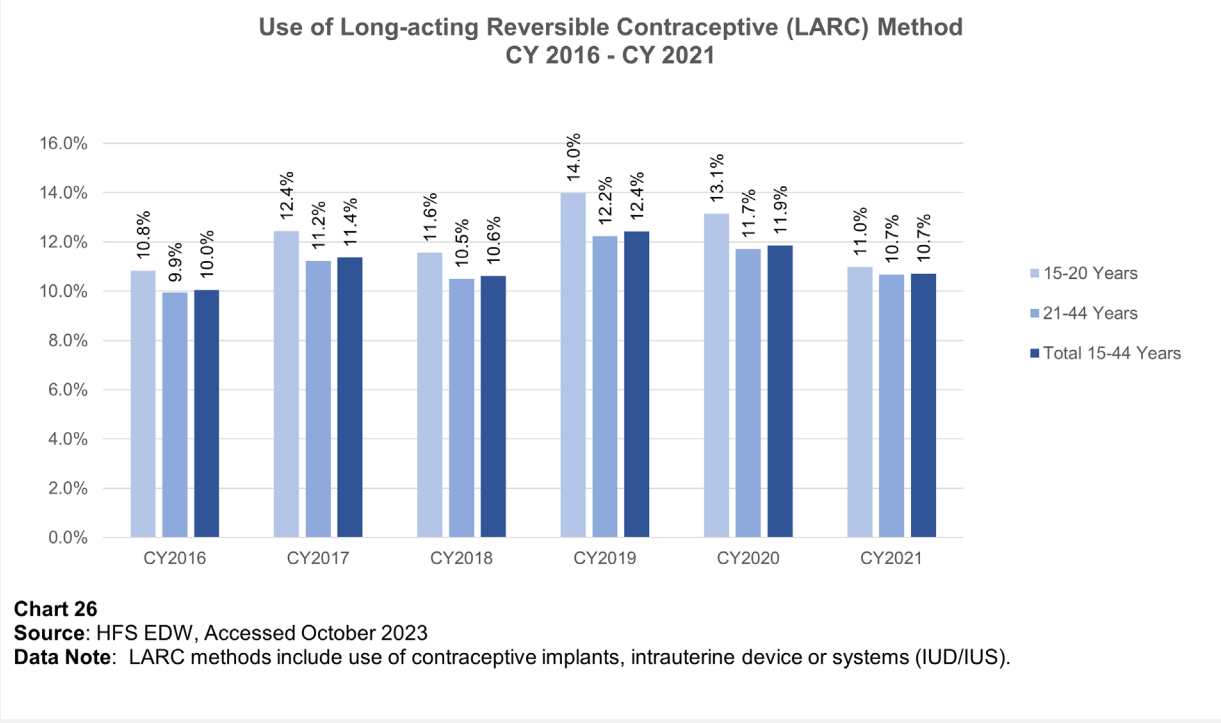


Chart 26
Source: HFS EDW, Accessed October 2023
Data Note: LARC methods include use of contraceptive implants, intrauterine device or systems (IUD/IUS).

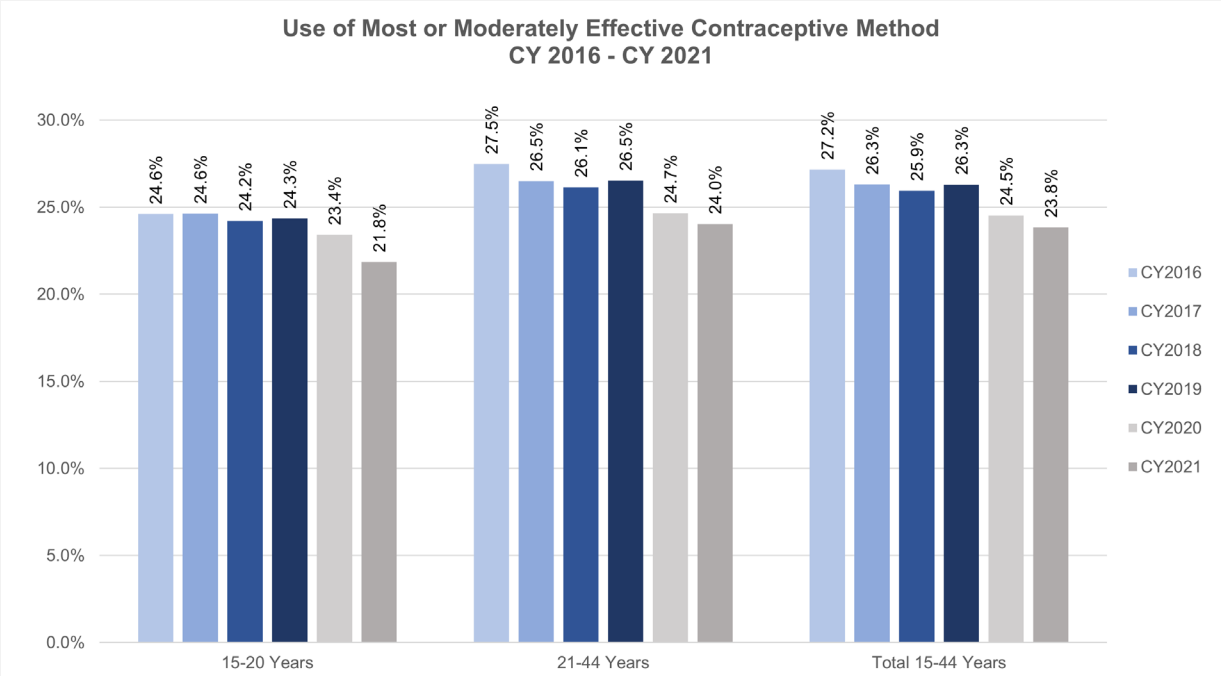


Chart 25
Source: HFS EDW, Accessed October, 2023
Data Note: Most effective methods are female sterilization, contraceptive implants, or intrauterine devices or systems (IUD/IUS). Moderately effective methods are injectables, oral pills, patch, ring, or diaphragm. Long-acting reversible methods of contraception (LARC) include use of contraceptive implants, intrauterine devices or systems (IUD/IUS).

Family planning allows a woman to have more control over if she has a child and allows her to determine the timing if she chooses to do so. In following with a women's health provider, staying healthy, and choosing a form of contraception that works for her, she is doing the very best for herself and for her potential unborn child if she chooses to become pregnant. If she chooses to have a child, starting out with a healthy, well-spaced and ideally planned pregnancy can lead to a healthy newborn infant. It is the goal of HFS to provide family planning services to women within 6 months of each pregnancy.

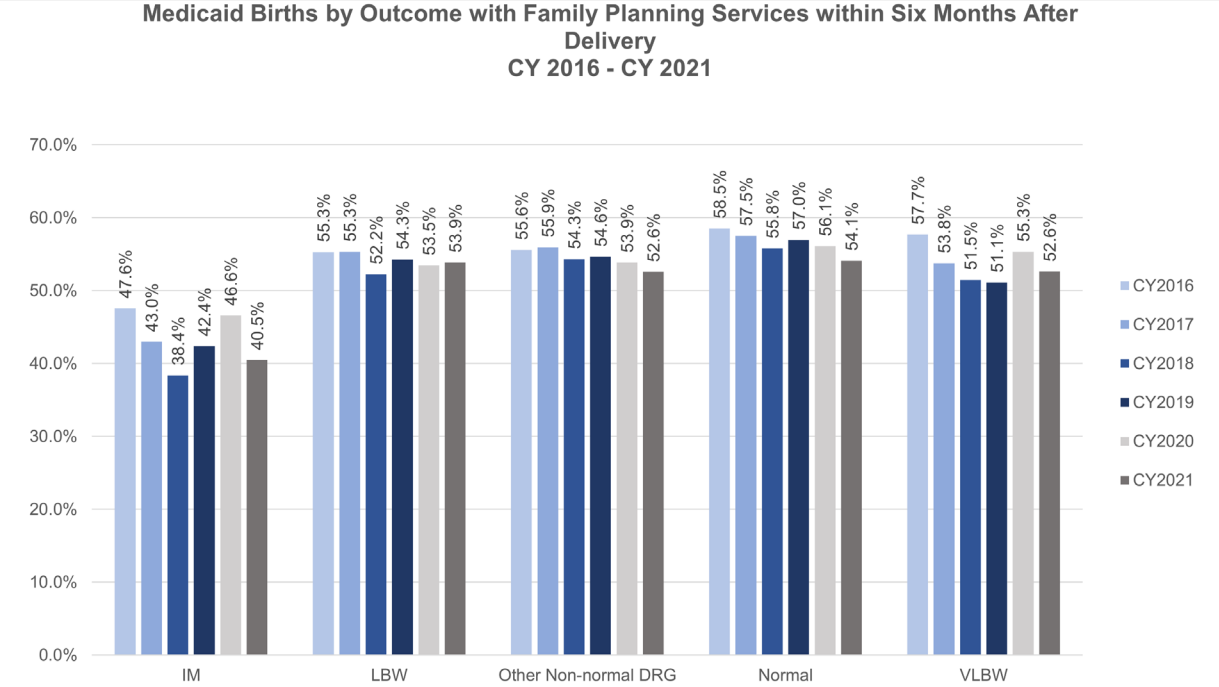


Chart 27
Source: HFS EDW, Accessed October 2023
Data Note: Percentages calculated within each brith outcome type (e.g., percentage of all LBW births receiving the service). Data are amoung matched Mom/Baby pairs. LBW is not inclusive of VLBW. Births where the outcome was unknown were excluded.

The number of unintended pregnancies among Medicaid covered women in Illinois dropped significantly, by 8% over the 2-year period from 2018-2020.

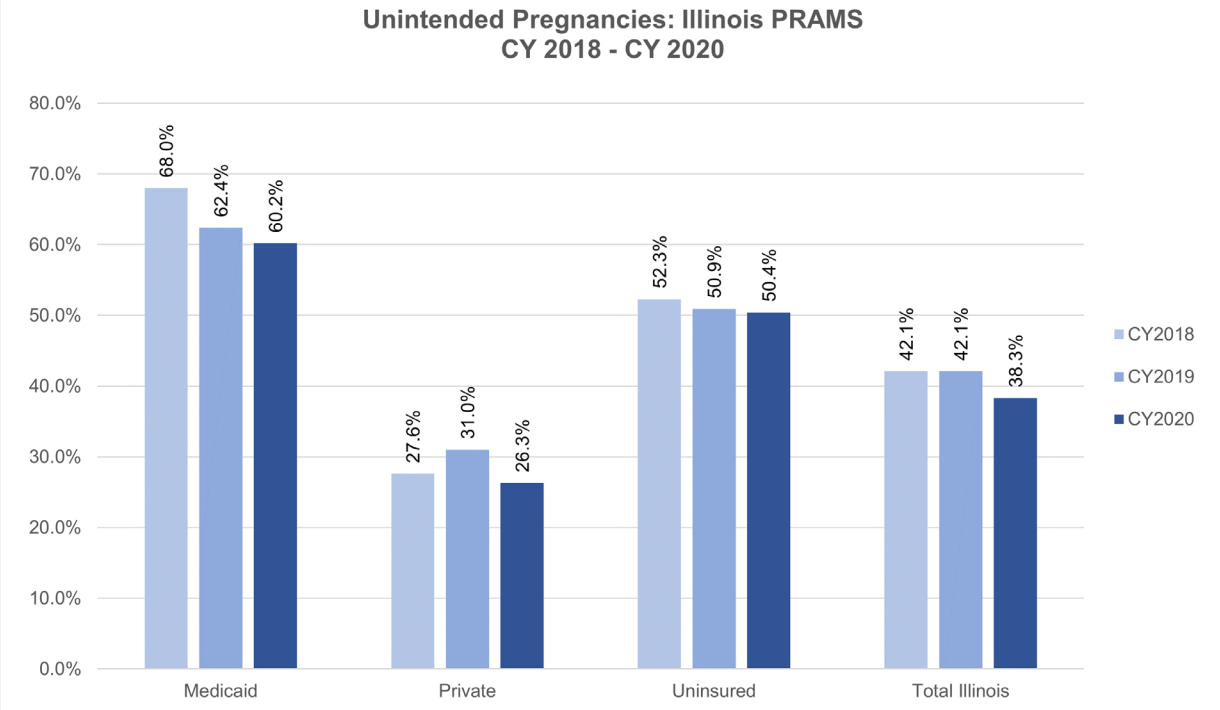


Chart 24
Source: Illinois Department of Public Health PRAMS Survey, Accessed October 2023.
Note: Medicaid/Private/Uninsured status is for before pregnancy.

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 infection is left untreated it can lead to infertility, and present other risks for mom and baby should pregnancy occur.

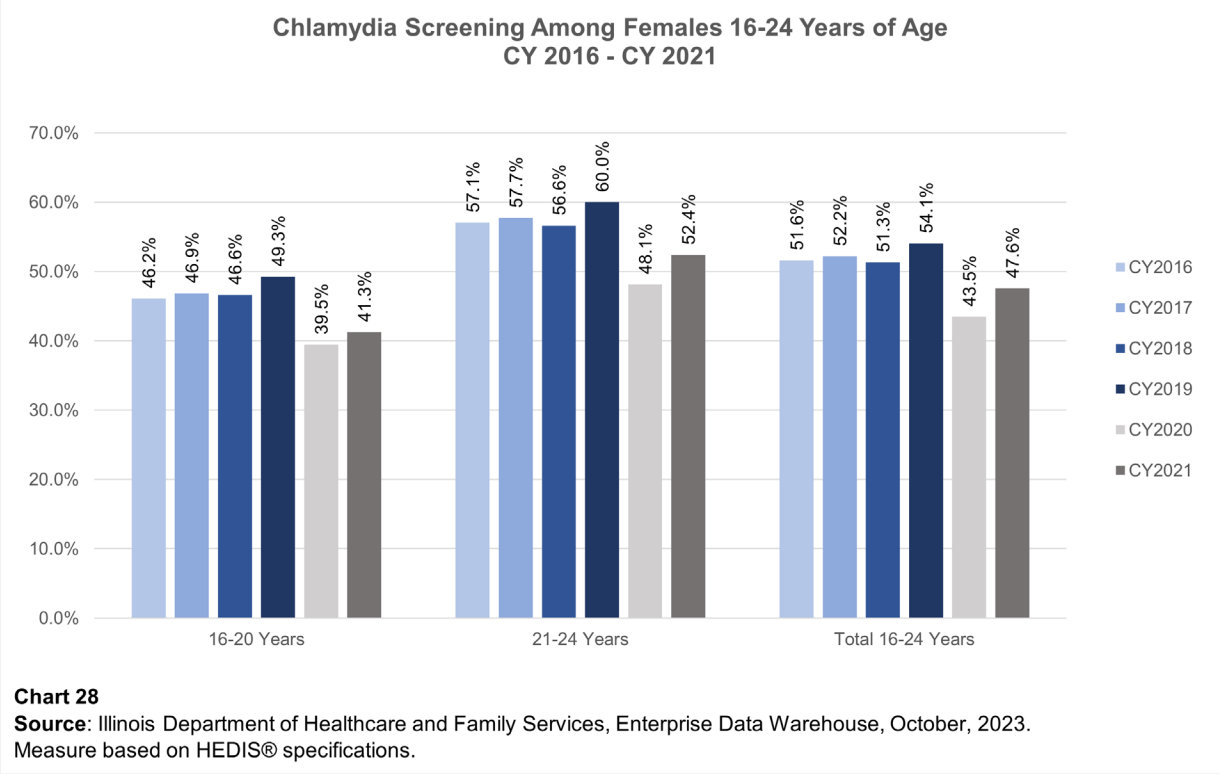


Chart 28
Source: Illinois Department of Healthcare and Family Services, Enterprise Data Warehouse, October, 2023.
Measure based on HEDIS® specifications.

Human Papillomavirus (HPV) Vaccine

Nearly 80 million people in the U.S.– about one in four – are currently infected with HPV, and about 14 million including teens, become infected with HPV each year. Most people with HPV never develop symptoms, and infections 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. The Human Papillomavirus (HPV) vaccine is crucially important because most people do not even know they are infected, but it protects against cancers that can be caused by HPV infection.

While vaccination rates were on the rise prior to the pandemic, it is not surprising that they declined during 2020-2021 and the beginning of the pandemic, as in-person visits and overall vaccination rates all decreased in number. The department is reassured that the decline was not large and look forward to seeing it increase again when we have post-pandemic data.

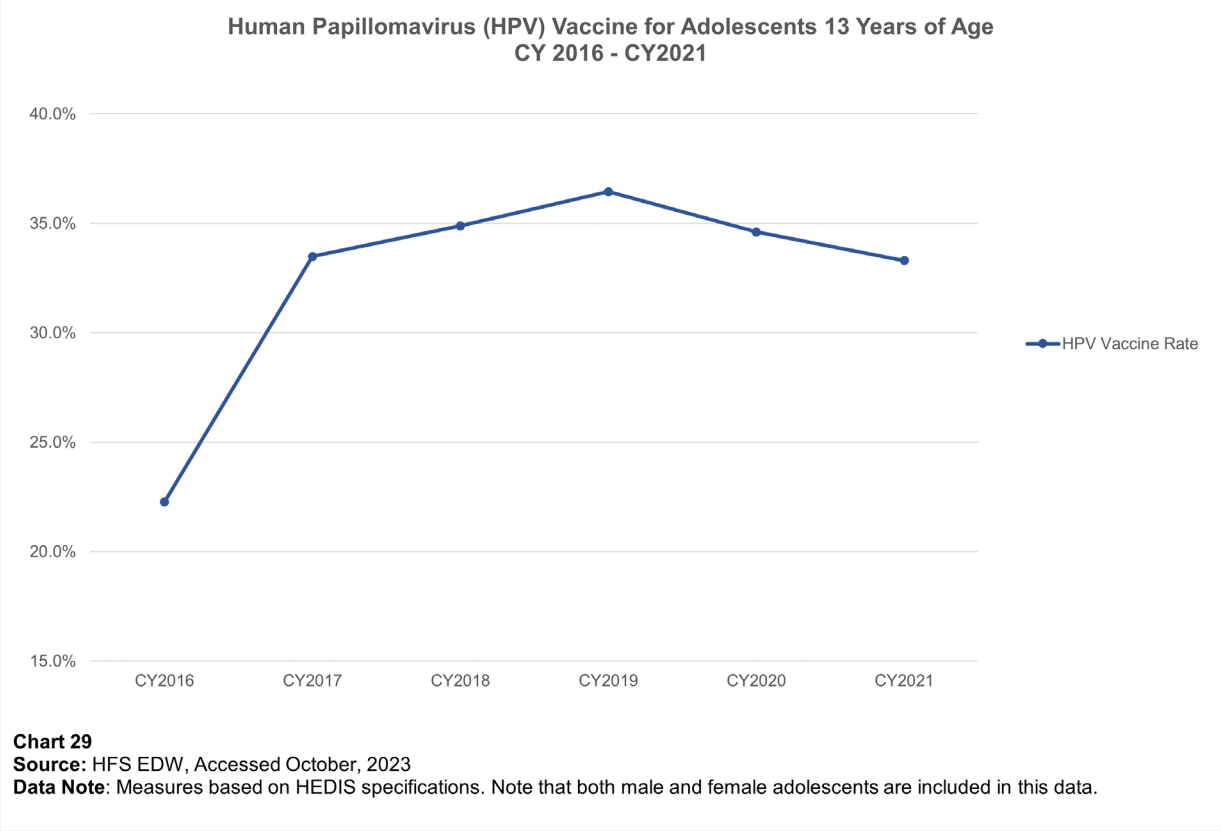


Chart 29
Source: HFS EDW, Accessed October, 2023
Data Note: Measures based on HEDIS specifications. Note that both male and female adolescents are included in this data.

ILLINOIS' COMMITMENT TO PERINATAL HEALTH

In spite of the havoc that COVID-19 has placed on healthcare systems around the country, we continue to build strong systems of care for pregnant and postpartum people as our commitment to perinatal health is unwavering. In 2021, Illinois became the first state in the nation to extend full benefit Medicaid coverage with continuous eligibility through 12 months postpartum, regardless of how the pregnancy ends. In addition, Illinois also became the first state in the nation to offer 12 months of full benefit Medicaid coverage with continuous eligibility regardless of immigration status. HFS is committed to improving the quality and equity of perinatal care by listening to the voices of those with lived experiences and collaborating with families, community-based organizations and with all interdisciplinary members of the healthcare team. By putting those efforts in place, it is our hope that all pregnant people in the State of Illinois can have healthy pregnancies, know that they are valued, and feel their voices are being honored.

To focus only on the mother's health prior to the birth of the infant will not be enough to improve perinatal health. To address the disparity in perinatal health outcomes will require the monitoring of care after discharge by extending reach to the family and across the continuum of care from pregnancy to early childhood. To build on those efforts, HFS has added reimbursement for a second preventive postpartum visit in alignment with the American College of Obstetricians and Gynecologist recommendation that recommends one visit between 0-3 weeks, and one visit between 4-12 weeks. HFS also has increased obstetric (OB) reimbursement rates, and funded Healthcare Transformation Collaboratives (HTCs) focused on improving maternal health.

The HTCs are designed to encourage collaborations of healthcare providers and community partners to improve healthcare outcomes, reduce healthcare disparities, and realign resources in historically marginalized communities throughout Illinois. In particular, the program seeks to increase access to community-based services, preventive care, obstetric care, chronic disease management, specialty care and address the social determinants of health in these communities.

Medicaid Focus on Quality Maternal Care

HFS has developed a family-focused Comprehensive Medical Programs Quality Strategy ("Quality Strategy") designed to improve outcomes in the delivery of healthcare at the community level. The HFS Quality Strategy was developed to guide us into the next dimension of elevating the level of care. We are demonstrating our commitment to perinatal health by expanding and diversifying the perinatal workforce, increasing access to maternal health services, and the necessary support to parents and families. 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 to keep individuals in the least restrictive environment and to keep them more closely connected with families and communities.

Collection of data and calculation of health plan performance against the Pay-for-Performance (P4P) measures are in accordance with national HEDIS timelines, specifications, and benchmarks. Performance metrics now center on our five pillars measured through an equity lens: (1) Adult Behavioral Health, (2) Child Behavioral Health, (3) Maternal and Child Health, (4) Equity, and (5) Community and Health Promotion. The HFS Quality Strategy has two of the five pillars focused on Maternal and Child Health and Equity.

Within the Maternal and Child Health pillar, the Department has selected the Timeliness of Prenatal and Postpartum Care measure (a Pay-for-Performance [P4P] measure), as the Medicaid Managed Care Performance Improvement Project (PIP), requiring all of the Medicaid Managed Care Organizations (MCOs) to identify a health disparity within the prenatal and postpartum care period and close the gap. Our focus here is to monitor the timeliness of prenatal care to detect possible concerns which if detected early, can improve birth outcomes. We can do this by ensuring that after delivery, women have a prenatal care visit in the first trimester as well as ensuring children receive two or more primary care visits between 15-30 months of age. The MCOs will be provided with support and technical assistance by the Department's External Quality Review Organization (EQRO).

Our overarching goal in our Maternal and Child pillar is to improve the health outcomes of mothers, babies, and children by:

- Reducing preterm birth rate and infant mortality
- Improving the rate and quality of postpartum visits
- Improving well-child visit rates for infants and children
- Increasing immunization rates for infants and children

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 2021-2022". This report provides a review of health plan performance in alignment with Quality Strategy goals.

Part of the Equity pillar includes breaking down quality metrics by race, ethnicity, and geography. 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 several core set measures in its quality monitoring program and requires the health plans in *HealthChoice Illinois* to report results.

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 in the future.

To provide family-centered care, HFS expanded its managed care program, ***HealthChoice Illinois***, to cover all counties in Illinois. The rebooted program was designed to enhance care by 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 of Illinois (Aetna), Blue Cross Blue Shield of Illinois (BCBSIL) also known as Blue Cross Community Health Plan, CountyCare Health Plan (CountyCare), Meridian Health (Meridian), Molina HealthCare of Illinois (Molina), as well as YouthCare which served (former) youth in DCFS care. HFS continues to work with its Medicaid health plans as well as its sister agencies to promote maternal health by implementing quality initiatives related to maternal health and perinatal care. This section describes initiatives being undertaken throughout state government to achieve these goals provided by our MCOs. This is a snapshot of initiatives underway:

AETNA BETTER HEALTH OF ILLINOIS (ABHIL)

AETNA's Top 3 Initiatives to Improve Maternal Health are as follows:

Initiative 1: Maternity Matters

Our Maternity Matters program is integrated with the following person-centered interventions; all identified pregnant members are assigned to a level of Care Management (CM) for ongoing education, monitoring and support, in accordance with their unique needs. Pregnant members remain in CM for 12 months post-partum; members with high-risk pregnancies and those who have delivered a child with neonatal alcohol syndrome (NAS) remain in CM for 18 months post-delivery.

Solutions include:

Nurse-Family Partnerships (NFP)

- The NFP program provides a home-visiting nurse to pregnant women with no previous live births, most of whom are low-income, unmarried, and teenaged.

Remote Patient Monitoring

- We provide members with an in-home remote monitoring technology package for individuals with chronic conditions and high-risk pregnancies to collect daily biometric data and avoid potential complications.

Integration of Community Health Worker (CHW) and Peer Support Specialists

- CHWs are trusted members of the community with a close understanding of the communities served; Peer Support Specialists are non-professional peers offering support through common shared experiences.

Next Best Action (NBA) Campaigns

- Educational multi-channel (text, mail, phone, web) campaigns to promote health behavior changes in expecting members.

Addressing the Social Determinants of Health

- All expectant mothers are assessed for barriers to care and social needs, and benefit from the complement of community resources that support their holistic journey to parenthood. The Community Resource Directory (platform) supports in identifying solutions and directing members to appropriate community resources.

Family Planning Support

- ABHIL partnered with Illinois Contraceptive Access Now (ICAN) to increase knowledge and access to family planning supports. All CMs completed a comprehensive training lead by ICAN.

Education on the Importance of Dental care when Pregnant

- ABHIL partnered with the Illinois Department of Public Health (IDPH) Chief of Oral Health Services. Through this partnership Aetna was able to provide additional education to all provider types on the importance of dental screenings and treatment in pregnant people.

Valuable System-Wide Insights

- Our Chief Medical Officer serves on the Illinois Perinatal Quality Collaborative, yielding valuable insights into Maternity care that is brought back to the Health Plan for solutioning.

Initiative 2: Additional Programmatic Support

ABHIL has initiated two new vendor partnerships with *Mae* and *Maven* to expand access to Maternal Health Care and improve health outcomes.

- ***Mae*** doulas work in lockstep with ABHIL Care Management to develop care plans immediately upon identification of pregnancy. During all stages of pregnancy, up to and including labor and delivery, doulas are present during provider appointments and help women track their physical symptoms as well as behavioral and social risk factors. *Mae* expects to reduce C-sections to fewer than 10% and Low Birth Weight deliveries to under 2%, for the engaged cohort. Finally, *Mae* doulas continue to support members with scheduled post-partum visits to ensure continuity of care and expect to increase the Post-Partum Care (PPC) HEDIS measure to 75%+.
- ***Maven*** is a comprehensive digital platform designed to support women and families through every stage of pregnancy, from fertility to post-partum, pediatric support, and parenting.

Initiative 3: Value Added Benefits and Community Events for Pregnant Women

Value Added Benefits

- All pregnant women receive a digital blood pressure cuff to remotely monitor their physical well-being.
- Our Maternity Matters program is delivering branded Maternity Boxes to members following all identified live births. These Maternity Boxes include valuable resources for new parents including a receiving blanket, bibs, educational materials on infant care, and other baby essentials.
- Post-partum Gym memberships
- Car seats
- Weight Watchers membership

Community Events (Baby Showers)

- We have returned to in-person quarterly Baby Shower events, in partnership with organizations such as March of Dimes, Gifts from Liam, Chicago Volunteer Doulas, The YMCA, Sudden Infant Death Services of Illinois, and more. These events include healthy food demonstrations for moms and babies, games, prizes, giveaways, and other services such as Redetermination awareness and Manage My Case Support. Attendance at the first in-person event held in 2023 surpassed the total cumulative attendance of all 4 virtual events in 2022.

BLUE CROSS BLUE SHIELD OF ILLINOIS

BCBSIL Top 3 Initiatives to Improve Maternal Health are as follows:

Mae

Blue Cross Community Health Plans (BCCHP) in partnership with Mae is providing doulas to educate and help coordinate care for chronic conditions that may impact pregnancy and postpartum health.

Specific interventions include:

- Weekly in person or virtual “check in” doula sessions.
- Robust “4th Trimester” plan with a focus on pediatric appointment adherence, postpartum contraception, and spacing preferences.
- Virtual and Live “Mae Mamma” sessions that address the importance of lifestyle changes and good nutrition throughout the gestational journey.

Nourishing Maternal Heath Program

- BCCHP partnered with Virtual Health Partners (VHP) and Sweet Potato Patch (SPP) to provide high risk pregnant women with nutritional education and fresh healthy meals for the member and their dependents delivered to their homes. In addition, the member is supported by a registered dietician as well as access to a nutrition focused interactive platform that offers nutrition, lifestyle, and fitness support.
- The women who are eligible for this program live in areas with disproportionately high Neonatal Intensive Care Unit rates for our membership and they are also diverse communities which have been identified as having food deserts.

Behavioral Health

- All pregnant and post-partum members who are enrolled in the Special Beginnings program are screened for behavioral health conditions through the completion of the Patient Health Questionnaire-9 (PHQ 9) and the Edinburgh Postnatal Depression Scale (EPDS). If behavioral needs are identified, we partner with our internal behavioral team for support and outside resources.
- We offer an 8-week educational and peer-support group at one of our Blue Door Neighborhood Centers. Co-facilitated by a licensed clinical social worker and midwife, it provides support and education on the physical and mental health aspects of pregnancy. The group is open to those in the community who are pregnant or up-to-one-year postpartum.

COUNTYCARE

CountyCare's Top 3 Initiatives to Improve Maternal Health are as follows:

- CountyCare's Brighter Beginnings program, a 2023 National Association of Counties (NACo) Achievement Award winner, is designed to help expectant families and babies stay healthy during pregnancy and after the baby is born. Members can receive information on recommended care, local resources and find providers. Members can earn rewards for getting needed care, including prenatal, postpartum, and well childcare.

- CountyCare conducts targeted outreach to pregnant and postpartum members to help address social needs and connect them to needed care to support improved maternal and child health outcomes.

- CountyCare is actively analyzing available utilization and outcomes data to inform future programming and address maternal and infant health disparities. An MCH dashboard was launched in 2022 and is being further developed with additional metrics.

MERIDIAN Health

Meridian's Top Initiatives to Improve Maternal Health are as follows:

- Proactive enrollment of pregnant members into Care Management from targeted OB Deserts with a focus on ongoing Nurse support with transportation, assistance with high-risk pregnancy conditions, navigating community resources and locating providers and specialists.

- Remote intensive patient monitoring program for high-risk pregnant members, which provides ongoing management and support through the post-partum period.

MOLINA Healthcare of IL

Molina's Top 3 Initiative to Improve Maternal Health are as follows:

Decreasing low birth weight requires identifying members with high-risk conditions for low-birth-weight deliveries and NICU deliveries EARLY in their pregnancy to assure appropriate and comprehensive prenatal care. Molina has implemented the following interventions for maternal support:

- To better identify and ensure pregnant women throughout the state have adequate education and access to quality prenatal and postpartum care, Molina has established a High-Risk Maternity screening and case management team. The Maternity screening team focuses on outreach to pregnant members throughout the state ensuring those with health care disparities and located in disproportionately impacted areas receive equal access of services and support. The Maternity screening team not only provides outreach to members upon initial notification of pregnancy but also attempts member engagement with any change in condition or increase in risk factors.

- Molina's High Risk Maternity team utilizes analytics software provided by vendor Lucina to improve early identification of pregnant members with a correlated risk based on factors such as clinical conditions, social determinants of health needs, prescription history, demographic, and geographic factors. With this integration, assessment and engagement efforts begin upon the earliest detection of a new pregnancy. Since partnering with Lucina, 26% of high-risk pregnancies are identified in the first trimester, in comparison to only 18% pre-implementation. Additionally, there has been a 50% increase in members referred for ongoing maternity case management support.

- Using standardized assessments, evidence-based pregnancy care management interventions, and a secure clinical platform documentation system; The High-Risk Maternity Screening team develops an individualized member plan of care. These members are then transitioned to the high-risk maternity case management team to evaluate and implement interventions to address individual member's needs and reduce barriers throughout the course of pregnancy and delivery. High Risk Case Managers provide thorough assessment of needs, increased collaboration with healthcare providers, and linkage to community resources and education through the duration of members pregnancy and for 6 weeks postpartum. Maternal case management support not only focuses on the importance of prenatal care but also on postpartum and future family planning.

NEW PROVIDER TYPES

Improving maternal health outcomes and reducing health disparities is a priority for HFS and the administration. New provider types and covered services are scheduled to be launched in 2024 to include Lactation Consultants, Doulas and Home Visitors. HFS believes that adding Doulas and other new provider types on a statewide level can improve outcomes by providing quality prenatal and postpartum care to customers and advancing health equity.

Lactation Consultants

A Lactation Consultant is a health professional who specializes in helping women breastfeed their babies. Lactation consultants can help with painful nipples, milk supply, breastfeeding positions, and other common nursing problems. Breastfeeding is a personal decision; however, studies show that challenges such as painful nipples and milk supply are factors in a person's choice to stop breastfeeding. An International Board-Certified Lactation Consultant (IBCLC) is trained to work with infants and their parents to solve any feeding challenges they are experiencing and improve a parent's chances of breastfeeding for as long as they choose. One study found that 60% of mothers don't breastfeed for as long as they would prefer. Some Lactation Consultants work with hospitals and birthing centers, while others have private practices.

As part of legislation aiming to address maternal health, Public Act 102-0665 (SB967), requires HFS to add IBCLCs and Certified Lactation Consultants (CLCs) as new Medicaid providers along with other maternal health provider types.

Doulas

The health of the mother affects the health of the infant, which ultimately affects the health of the family. A Doula is a trained nonmedical health worker who provides continuous physical, emotional, and informational support to a pregnant person before, during, and after childbirth. According to the American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal Fetal Medicine, "*the continuous presence of a doula during pregnancy is one of the most effective tools to improve labor and delivery outcomes*" yet, year after year, the maternal mortality rates continue to grow in the United States. In all developed countries, the United States is ranked #1 in maternal mortality deaths. Studies show that the most significant cause is disproportionately attributed to black women, who under normal circumstances many are healthy, however, they lose their life either prenatally, during birth or during the post-partum period. One contributing factor to many of the deaths is due to inequities in the healthcare system. In some cases, the implicit biases are a contributing factor to causes that lead to preventable deaths. The high rate of deaths for women of color during pregnancy, birth and in the post-partum period has become so concerning, it has caught the attention of the White House. Under the Biden-Harris Administration, the White House is placing significant attention to reducing the maternal mortality rate. As a result, the White House has released the White House Blueprint for Addressing the Maternal Health Crisis that lays out a plan to address and reduce the disparities towards women of color. The State of Illinois has passed legislation to include Doulas among several other provider types to circumvent this problem.

One study found in PubMed (NIH.gov 2022) indicated that overall, higher odds of respectful care among women supported by a doula than those without such support. Birthing people with doula support experience greater satisfaction with care and are less likely to experience birth complications, less likely to have low birth weight babies, and more likely to initiate breastfeeding. Studies have also shown that the benefits of doula services for high-risk pregnancies that are associated with low-income women, women of color, and those who face language barriers result in fewer pre-term deliveries according to the Center for Health Journalism.

HFS has partnered with Community Doulas and many of the Doula organizations across the state to incorporate their feedback and listen to how we can better work together and gain an understanding of the barriers they face. This collaboration is proving to be invaluable. As a team, problems are being discussed not from a top-down delegation stance but from a bottom-up team-based approach.

HFS is also collaborating closely with sister agencies to determine the tools necessary to implement a smooth transition to standardize the onboarding process of Doulas onto the Medicaid system. Doulas will have the capacity to bill Medicaid whether you are a large Doula organization or an individual working independently as a private Doula. Hopefully these practices will charge the healthcare system to adapt to new organizational cultures and to be open and receptive to viewing Doulas as part of the healthcare team. The goal is for every person who desires to have a baby in Illinois, there is a doula available to provide them with the services they need regardless of their financial situation.

Home Visitors

A Home Visitor is a person who provides resources and skills to parents and caregivers to help raise and encourage children to be socially, physically, and emotionally healthy and ready to learn. The goal is to provide and offer vital assistance and long-standing techniques to promote the health and well-being of women, children, and their families. In Illinois, there are currently 8 Home Visiting models operating throughout the state. For a list of those services, see Appendix A.

Expanding Coverage for Reproductive Healthcare:

Additionally, the Department and Administration have worked to maintain and expand coverage for reproductive healthcare. In November 2022, the Department implemented a new partial benefit Medicaid eligibility group for broad coverage of family planning and family planning-related services. The Department is working closely with the Illinois Department of Public Health (IDPH) to maximize coverage of family planning services between the HFS Family Planning Program and the IDPH Title X Illinois Family Planning Program. The Department also now allows pharmacists to be reimbursed for contraceptive counseling under the medical assistance program. Additionally, HFS increased provider rates for abortion care, and is collaborating with IDPH, RUSH, and the University of Illinois at Chicago on the Complex Abortion Referral Line for Access (CARLA), a first in the nation program with provider-led nurse navigation services for medically complex pregnant people needing abortion care in hospitals. The Department also has submitted a 1115 waiver concept paper to federal CMS proposing infrastructure grants for reproductive health providers and community-based organizations which, if approved, would infuse funding into Illinois' reproductive health system with federal Medicaid match.

HFS MATERNAL CHILD PROGRAMS

HFS offers several programs to provide assistance to women:

Medicaid Presumptive Eligibility (MPE): offers immediate, temporary coverage for outpatient healthcare for pregnant women.

Moms & Babies: covers healthcare for women while they are pregnant for up to 12 months after the baby is born. Moms & Babies coverage is the full Medicaid benefit package, including covers both outpatient healthcare, and inpatient hospital care, including labor and delivery, primary and specialty care, and prescription drugs.

Family Planning Presumptive Eligibility (FPPE): provides immediate, temporary, medical coverage for reproductive health and family planning related services to all eligible Illinois residents.

HFS Family Planning Program: provides ongoing medical coverage for reproductive health and family planning related services to all eligible Illinois residents.

Healthcare Transformation Collaboratives

Healthcare transformation collaboratives were launched by HFS in 2021 to bring healthcare providers and community partners together to improve healthcare outcomes and disparities. Since that time, $165 million has been awarded to multiple groups state-wide. Recipient award winners for maternal and perinatal care are:

- **South Side Healthy Community Organization:** A collaborative dedicated to fundamentally advancing healthcare access, including to specialty and obstetrics care, and improving health outcomes for Chicago's South Side residents. This project includes 14 health centers providing specialty and obstetric care.
- **Healthcare Transformation Collaborative of Chicago's Far South Side Communities**, lead entity: Roseland Community Hospital. Improving access to labor and delivery services, as well as mental health services, by making significant improvements to the hospital and partnering with local FQHCs and community-based mental health providers.
- **South Side Health Equity Collaborative**, lead entity: Insight Health. Committed to improving the health on the south side of Chicago by addressing maternal healthcare and behavioral health for youth impacted by trauma through a community-informed, data-driven and "racial equity first" approach. Innovative strategies of healthcare access and social conditions will address vulnerable communities that have been historically disinvested and disproportionately harmed by structural racism.
- **Vermilion County Community Health Collaborative**, lead entity: Carle Foundation. A community-driven healthcare delivery system to improve chronic care outcomes and increase access to preventive, treatment, and specialty care services. These will include maternal and child health, behavioral health and substance use, food insecurity and other vital components.

Quality Improvements in Birthing Hospitals

The Illinois Perinatal Quality Collaborative (ILPQC) brings together hospitals, health care providers, state organizations, policymakers, patients, and advocates, to address the most pressing issues in care for mothers and newborns. They provide learning opportunities, rapid-response data, and quality improvement (QI) support to build hospitals' QI capacity to implement evidence-based practices, to improve outcomes for mothers and newborns. ILPQC works with over 95% of birthing hospitals, covering 99% of births, in one or more statewide quality improvement initiatives. Its current initiatives include:

- Equity and Safe Sleep for Infants (ESSI)- working with hospitals to improve on an increase in sudden unexplained infant death syndrome (SUID) by 38% in Black infants since 2018, and with all birthing persons to improve infant sleep habits and environments.
- Birth Equity- working with hospitals and systems to improve use of Social Determinants of Health (SDOH) coding in healthcare, improve data collection stratified by race and ethnicity, and implement strategies for respectful care practices.
- Promoting Vaginal Birth (PVB)- decreasing the number of unnecessary Caesarean "normal term singleton vertex"(NTSV) or expected uncomplicated first single term births by establishing strategies or team huddles prior to delivery.
- Babies Antibiotic Stewardship Improvement Collaborative (BASIC) - improve awareness, education, and implementation of early-onset sepsis evaluation and antibiotics.

Progress Through Partnership
Providing Services for Women and Infants by Government and Community Providers

HFS aims to improve outcomes for women and infants through its partnerships with sister agencies and other affiliates including:

The Illinois Department of Human Services (DHS) Bureau of Maternal Child Health (BMCH) supports WIC, Family Case Management, Better Birth Outcomes and Home Visiting and to improve results for perinatal women, infants and children up to age two. The goal is to reduce infant and maternal mortality and morbidity rates at both the state and local level with an emphasis on addressing racial/ethnic disparities in outcomes. A few maternal and child health programs include:

Family Connects: A program that is currently being piloted in multiple areas in Illinois, with plans to expand state-wide. It is an evidence-based universal approach for supporting newborns and their families. It provides between one and three nurse home visits to every family with a newborn at approximately three weeks of age, regardless of income or demographic risk. Nurses assess newborn and maternal health, assess needs and provide knowledge to link the family to appropriate resources in the community.

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

The High Risk Infant Follow Up Program (HRIF): 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 an investigation conducted 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.

It has been a priority to address the stigma associated with pregnant persons experiencing addiction.

The Illinois Department of Public Health (IDPH) released Illinois' third Maternal Morbidity and Mortality Report in October 2023. 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.

The 2023 report states:

- The leading cause of pregnancy-related death was substance use disorder, which comprised 32% of pregnancy-related deaths.
- Black women were twice as likely to die from any pregnancy-related condition and three times as likely to die from pregnancy-related medical conditions as white women.
- More than half of pregnancy-related deaths occurred more than 60 days postpartum.
- The MMRCs determined 91% of pregnancy-related deaths were potentially preventable due to clinical, system, social, community, or patient factors.

The Infant and Maternal Mortality Task Force Among African Americans (IMMT) 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), 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 is engaged in 4 initiatives:

- Maternal Health Training for Home Visitors - MIECHV working with home visitors to establish training programs for groups and individuals.
- Expansion of Psychiatric Consultation for maternal health providers- working with DocAssist to provide mental health training for maternal health providers.
- Birth Equity QB Quality Improvement Initiative- screening for and addressing social determinants of health, utilizing racial and ethnic data to improve outcomes in maternal health, and engaging patients, and community advocates in conscious listening and respectful care.
- Maternal Hypertension and Obstetric Hemorrhage Training for Providers- PROMOTE-IL is providing mini-grants to the state's ten regional Administrative Perinatal Centers to support them in providing obstetric hemorrhage and maternal hypertension education, training, and consultation to their network hospitals. In addition, we are partnering with the Illinois Perinatal Quality Collaborative to collect and analyze data from birthing

hospitals across the state to understand levels of provider training on maternal hypertension and obstetric hemorrhage.

Funding also facilitates a one-of-its-kind, two-generation postpartum clinics and research and training centers in the South and West Loop areas. 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. There are now two Two-generation clinics, serving patients predominantly from the south and west sides of Chicago.

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) 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[1] 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 set to: Normal.

[1] Non-normal DRGs include: 985, 385, 986, 386, 987, 387, 388, 989, 389, or 390

- 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 procedures codes associated with the mother[2].

- 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 the 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 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

[2] DRG Codes: 540-542, 560

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.

APPENDIX A
Home Visiting Services

Baby TALK
Service Locations: Decatur, IL and various counties across Illinois

Description: This model is designed to impact child development and nurture parent-child relationships.

Services:
- Engage families in support of optimal early childhood development
- Apply a developmental approach to family engagement
- Facilitate family-child interaction
- Affirm child capabilities and competence in families
- Actively listen, reflect and use strength-based strategies
- Community systems building to provide trustworthy relationships for families
- Nurture healthy parent-child relationships
- Promote a trustworthy system of support for families
- Improve social, behavioral, and cognitive skills utilized for school readiness

Age Limit: Prenatal up to 3 years old

Frequency of Visits: Weekly to Bi-monthly, according to the needs of the family

Duration of Visits: Based on the needs of the child and family

Service Length: Maximum of 3 years

Healthy Families America (HFA)
Service Locations: Peoria and Tazewell counties (Central), Rock Island and Adams County

Description: This model is designed to assist families who are overburdened by stress and who are at risk for child abuse and neglect and other adverse childhood experiences. Healthy Families America promotes child well-being and prevents the abuse and neglect of children by delivering home visiting services that empower families and communities.

Services:
- Doula services
- Build and sustain community partnerships to systematically engage overburdened families in home visiting services prenatally or at birth
- Cultivate and strengthen nurturing parent-child relationships
- Promote healthy childhood growth and development
- Enhance family functioning by reducing risk and building protective factors

Age Limit: Prenatal up to 3 years old; some agencies offer services up to 5 years old

Frequency of Visits: Bi-weekly to quarterly, according to the needs of the family

Duration of Visits: Minimum of 60 minutes

Service Length: Services are offered for 3 years; may extend to 5 years

Parents As Teachers (PAT)

Service Locations: Joe Daviess and Stevenson county

Description: Model designed as an early childhood parents' education, family support, and school readiness HV model.

Services:

- Increase parent knowledge of early childhood development and improve parent practices
- Provide early detection of developmental delays and health issues
- Prevent child abuse and neglect
- Increase children's school readiness and success

Age Limit: Prenatal to 3 years

Frequency of Visits: Bi-Weekly home visits. Can provide weekly if needed depending on the needs of the family but this is usually only for a short time.

Duration of Visits: 60 minutes for 1 child, more than 1 child may be 90 minutes.

Service Length: Designed to provide at least two years of services to families or until the child turns 3.

Family Spirit

Service Locations: Granite City

Description: This model is a program for and by Native Americans. It works within your culture to help strengthen parents, while supporting the health of your family.

Services:

- Parents gain knowledge and skills to promote healthy development and positive lifestyles for themselves and children
- Leverages cultural assets and an indigenous understanding of health
- Provides screenings to children for developmental delays between one month and 3 / 5 /12 years of age
- Increase parenting skills
- Address maternal psychosocial risks
- Prepare children for early school success

- Ensure well-child visits
- Link families to community services and promote skills needed across the lifespan

Age Limit: Between pregnancy and 5 years old or kindergarten entry

Frequency of Visits: Weekly to Bimonthly. Frequency of the visits depends upon the stage of the program

Duration of Visits: Unknown

Service Length: 3 years maximum

Nurse Family Partnership (NFP)
Service Locations: Cook (southern region only), Kane, Saline, Gallatin, White, Hamilton, Pope, Hardin, Franklin, Williamson, and Champaign (City of Urbana)

Description: This model is a program that empowers first-time, low-income parents to transform their lives and create better futures for themselves and their babies. The *HV service is provided by RNs* to first-time low-income mothers, at the beginning and during pregnancy and until the child's 2nd birthday.

Services (Nurse-based Model):
- Improve prenatal and maternal health and birth outcomes
- Improve child health and development
- Improve families' economic self-sufficiency and/or maternal life course development

Age Limit: At or before 28 weeks prenatal up to2 years old

Frequency of Visits: Flexible frequency; Based on risk framework

Duration of Visits: Minimum of 60 -75 minutes
Service Length: 2 years

Family Connects
Service Locations: Chicago, Peoria, Stephenson County- please note there may be some modifications based on location

Description: A HV model designed for birthing people and newborns. The model provides health assessments of mother/birthing person and infant, risk and assessments of family's psycho-social needs, and referrals to community supports. Model includes a community alignment component that brings families, community agencies and health care providers together to build a system of equitable access to community supports and resources for all families based on their needs, which are identified through the nurse home visits.

Services:
- Assess family needs
- Provide supportive guidance

- Link families to community resources
- Identify and align community services that support families and young children
- Identify gaps between family needs and available community resources
- Screen families for potential risk factors associated with mother's and infant's health and well-being

Age Limit: 2 weeks-12 weeks (NICU admission up to/less than 6 months old)

Frequency of Visits: 1-3 home visits. For longer term needs, the program includes referral and connection to MIECHV and other more intensive home visiting programs

Duration of Visits: 2 hours but may range from 60-120 minutes

Service Length: 0-12 weeks post-partum, with the exception of NICU babies where services can be up to 6 months.

Home Instruction for Parents of Preschool Youngsters (HIPPY)
Service Location: Cook County

Description: This model is a program that focuses on parent-involved and parent-directed early learning. Services are offered to parents, who then work with their own 2 – 5 year old children. It supports parents as their children's first teacher by providing them the tools, skills, and confidence to teach their young children in the home. HIPPY's mission is to help parents prepare their children for success in school and beyond.

Services:
- Empower and train as a parent to act as the primary educator of the children in the home
- Encourage involvement in the school and community
- Enhance the development of very young children
- Empower parents to play an active role in preparing their children for school
- Promote healthy family functioning

Age Limit: Children ages 2 to 5

Frequency of Visits: Weekly 1-hour visits and at least 6 group meetings, typically during the school year

Duration of Visits: 60 minutes

Service Length: 2 years up to age 5 years old

Early Head Start Home-Based
Service Locations: Cook and Madison County

Description: This model provides family-centered services for low-income families with very young children under the age of 3. It is designed to promote the development of the children, and to enable their parents to fulfill their roles as parents and to move toward self-sufficiency.

Services:

- Promote children's physical, cognitive, social, emotional development and future growth for infants and toddlers.
- Comprehensive health and mental services
- Home Visits
- Support family well-being, including family safety, health, and economic stability
- Promote healthy prenatal outcomes for pregnant women
- Support child learning and development
- Provide services and supports for children with disabilities, if applicable
- Foster parental confidence and skills that promote early learning
- Provide ongoing support through case management, peer support groups, adult education and basic literacy skills, job training, and job placement services

Age Limit: Children under the age of 3

Frequency of Visits: One home visit per week, a minimum of 46 visits must be provided annually

Duration of Visits: 90 minutes

Service Length: Prenatal to 3 years old