



VNPC Clinical Environmental Scan

May 2025

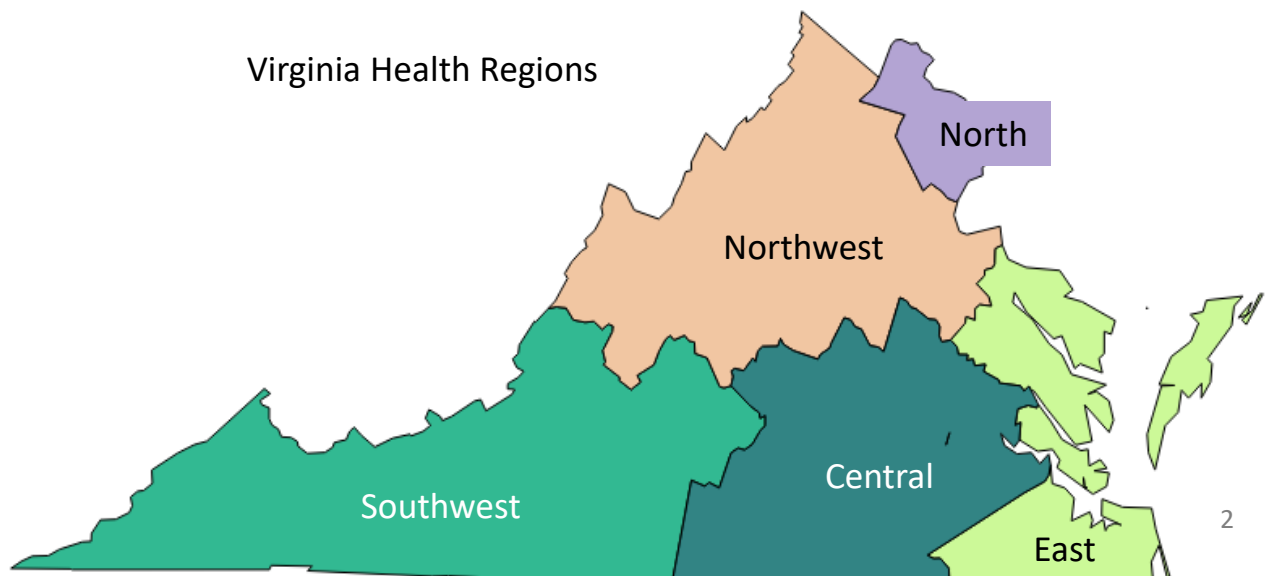
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VNPC presents this data as reported in hospital discharge records. We acknowledge that the information reflects coding practices by various providers across the Commonwealth.

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Final: 5/30/2025

Executive Summary

The 2025 VNPC Clinical Environmental Scan provides an overview of clinical maternal and newborn health trends in Virginia from 2020 to 2024. Data from the Virginia Maternal Health Dashboard shows a slight increase in inpatient deliveries with notable variations by race and payer. Vaginal deliveries accounted for about two-thirds of births, while cesarean sections made up the rest. From 2020-2024, the racial distribution of Virginia deliveries was 50% White, 20% Black, and 30% Other Races, and the distribution of payer sources was 52% Commercial, 36% Medicaid, and 12% Other Payer sources.

Perinatal mental health conditions, particularly anxiety and depression, were prevalent, especially among White and Medicaid populations. Substance use disorder rates were also higher among White and Medicaid patients, with opioid use remaining significant despite a decrease in recent years. Obstetric hemorrhage rates rose steadily, with postpartum hemorrhage being the leading cause.

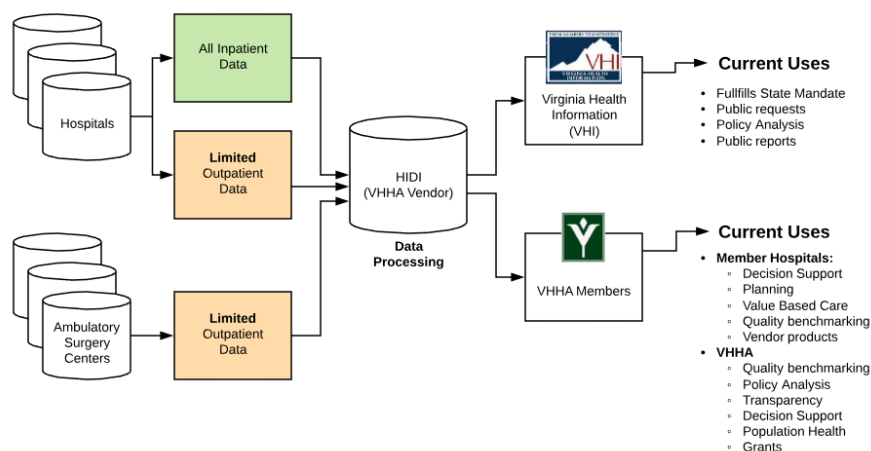
Cardiac conditions during pregnancy increased, with arrhythmias and congenital heart disease being the most frequent issues. Severe hypertension rates also rose, particularly among Black and Medicaid patients. Infant health data revealed rising rates of conditions originating in the perinatal period and congenital abnormalities, also with higher prevalence among Black and Medicaid populations.

Access to care remains a challenge, with the number of birthing hospitals decreasing from 68 in 2012 to 49 in 2024, indicating higher preterm birth and severe maternal morbidity rates when mothers are living more than 25 miles from a hospital. The report underscores the need for targeted interventions to address health disparities and improve outcomes for all patients.

Methods

Data in this report are exclusively retrieved from the Virginia Maternal Health Dashboard⁸. The Maternal Health Dashboard is a project that was completed in collaboration of the Virginia Hospital and Healthcare Association (VHHA) with the Virginia Neonatal Perinatal Collaborative (VNPC). Data in the dashboard are encompassing of discharges from inpatient hospital visits that are filtered to show all diagnosis related group (DRG) codes to identify maternal and newborn patients who received care in Virginia regardless of residence.

Data in the Maternal Health Dashboard are representative of all Virginia Hospitals as they are required to submit this information according to 1993 legislation, Patient Level Data System Act¹⁰. See the infographic⁸ below for how the data are submitted and processed before they reach the Maternal Health Dashboard.



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Data are updated through the end of 2024 and are represented in this report from 2020-2024. A limitation of the Maternal Health Dashboard is inconsistent reporting of race codes, so the data are stratified into white, black, and other race. The breakdown of the other race category is shown as 42.5% other specified (multiracial), 20.0% Asian, 19.7% unknown, 16.2% Hispanic – white, 0.8% American Indian, and 0.6% Hispanic – black. The records are filtered for different health conditions by using ICD-10 codes for specified diseases and health outcomes. ICD-10 code groupings are following the definitions created by the Alliance for Innovation on Maternal Health Care (AIM)² in their patient safety bundles for perinatal mental health conditions, substance use disorder, obstetric hemorrhage, severe hypertension, and cardiac conditions. Severe maternal morbidity data are defined by the CDC definition of 21 ICD-10 indicators while excluding blood transfusion as the only cause⁶.

Newborn inpatient data are filtered for ICD-10 codes indicating conditions originating in the perinatal period, and congenital malformations, deformations, and chromosomal abnormalities. New in 2025, the VHHA and the VNPC collaborated to create a Newborn Health Dashboard to accompany the Maternal Health Dashboard⁹. Newborn data are identified in inpatient delivery records through DRG codes for “Newborn Care”. Filtering for ICD-10 codes in the Newborn Health Dashboard, records are queried to understand patient demographics along with high and low birth weight, perinatal conditions (COPp), and congenital conditions (CMDCA).

Helpful Definitions

Birth Hospital: Hospitals that maintain the proper resources to support labor and delivery as well as care of a newborn infant. As of May 1st, 2025, Virginia has 49 birthing hospitals.

Crude Rate: Total number of events or occurrences that occur in a specified population in a specified period divided by the total or specified population and multiplied by a constant multiplier (10, 100, 1,000...)

I.e., Preterm Delivery Rate: Total number of preterm deliveries each year divided by the total number of deliveries in that year times 100. Shown as the number of preterm deliveries per 100 deliveries (or percent of all deliveries).

Preterm Births⁵: When a baby is born before 37 weeks of pregnancy.

Severe Maternal Morbidity⁶: Severe maternal morbidity (SMM) includes unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman’s health.

AIM Patient Safety Bundles²: Standardized, evidence-based programs developed by the Alliance for Innovation on Maternal Health (AIM) to improve maternal health outcomes. Each bundle targets a specific clinical condition (e.g., obstetric hemorrhage, hypertension in pregnancy) for clinical quality improvement.

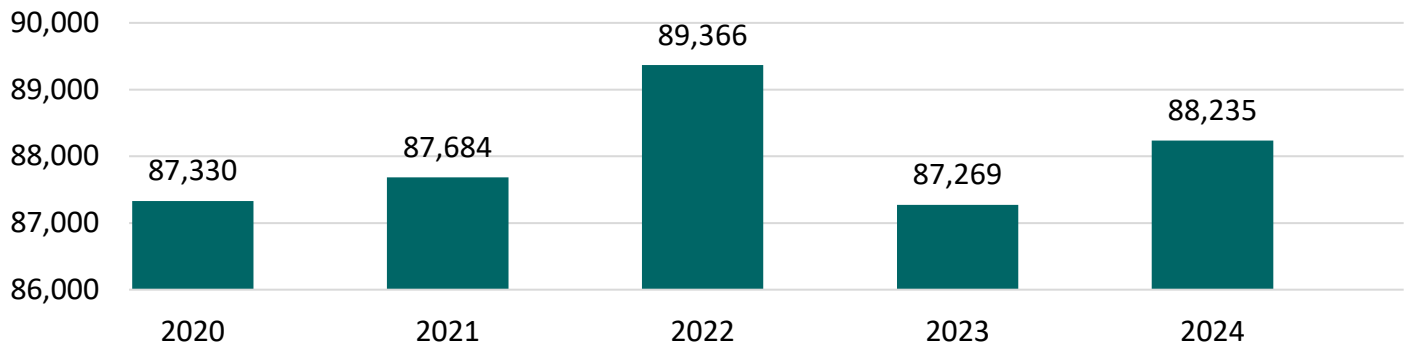
Substance Use Disorder: A medical condition characterized by a persistent use of substances despite harmful consequences. AIM SUD definition includes Amphetamines, Cocaine, Opioids, and Sedatives.

Newborn: A patient who is newly born with the record pertaining to post birth hospital stay. This includes hospital births and admissions to newborn nursery or neonatal intensive care unit (NICU) before discharge.

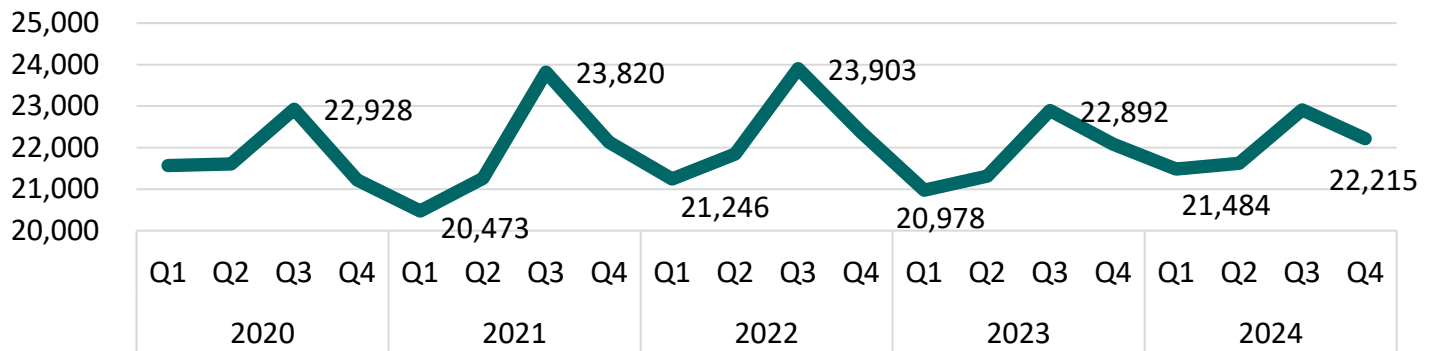
Inpatient Delivery: A hospital admission for the purpose of childbirth, where the delivery occurs during the inpatient stay. This includes vaginal and cesarean deliveries.

Delivery Demographics

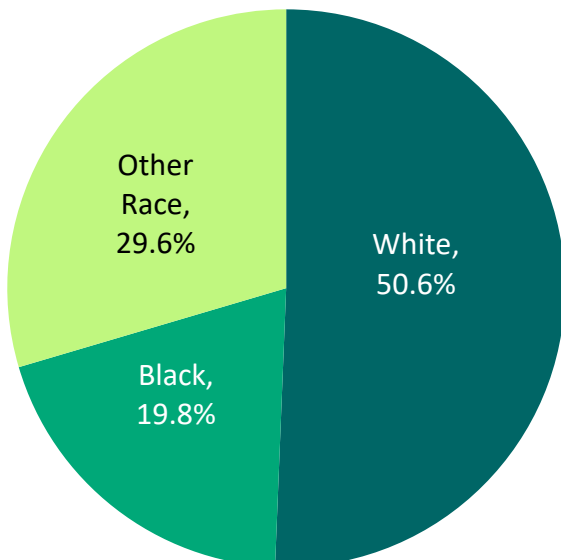
Virginia Inpatient Deliveries, 2020-2024



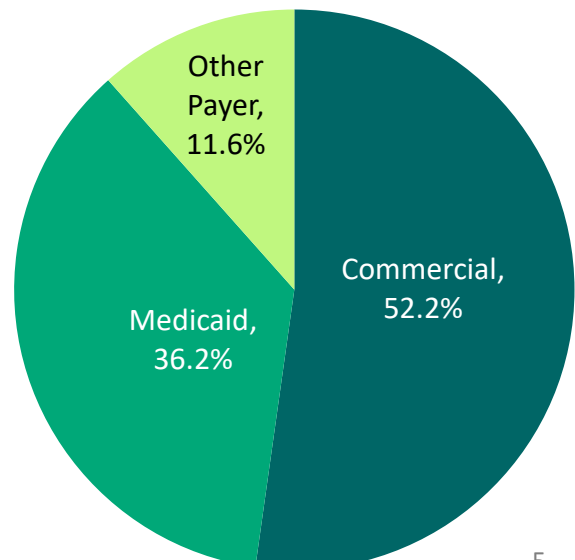
Virginia Deliveries By Quarter, 2020-2024



Deliveries by Race, 2020-2024

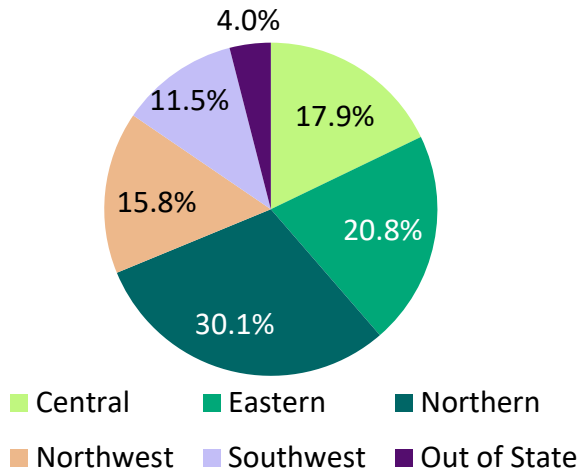


Deliveries by Payer, 2020-2024

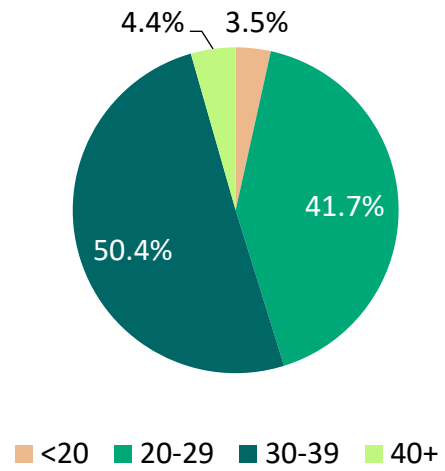


Delivery Demographics

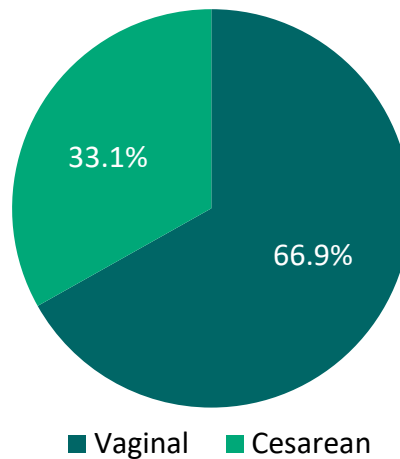
Deliveries by Region, 2020-2024



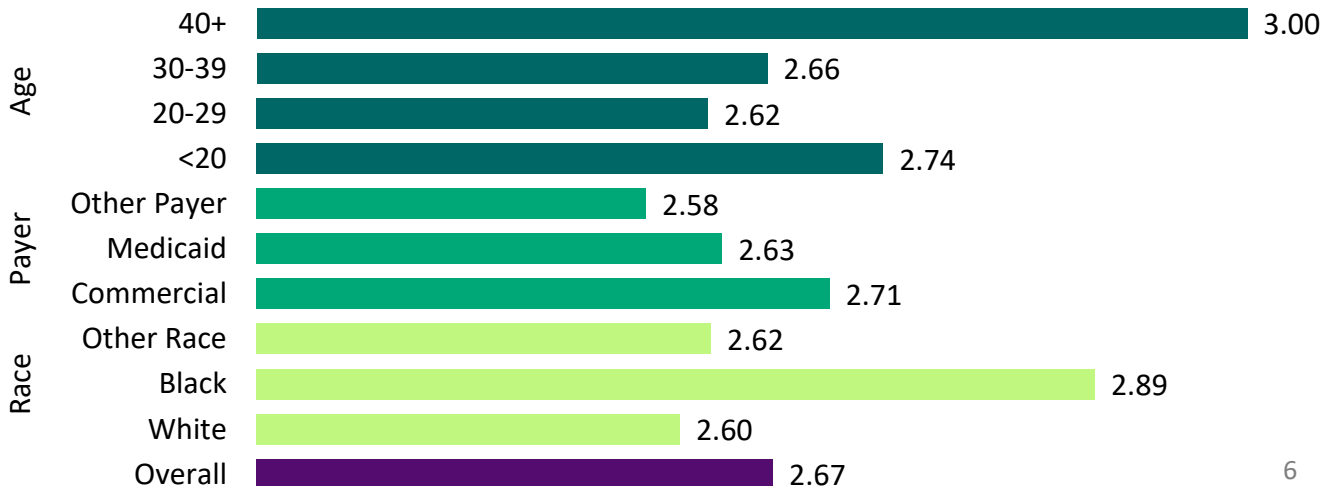
Deliveries by Age, 2020-2024



Deliveries by Delivery Method, 2020-2024



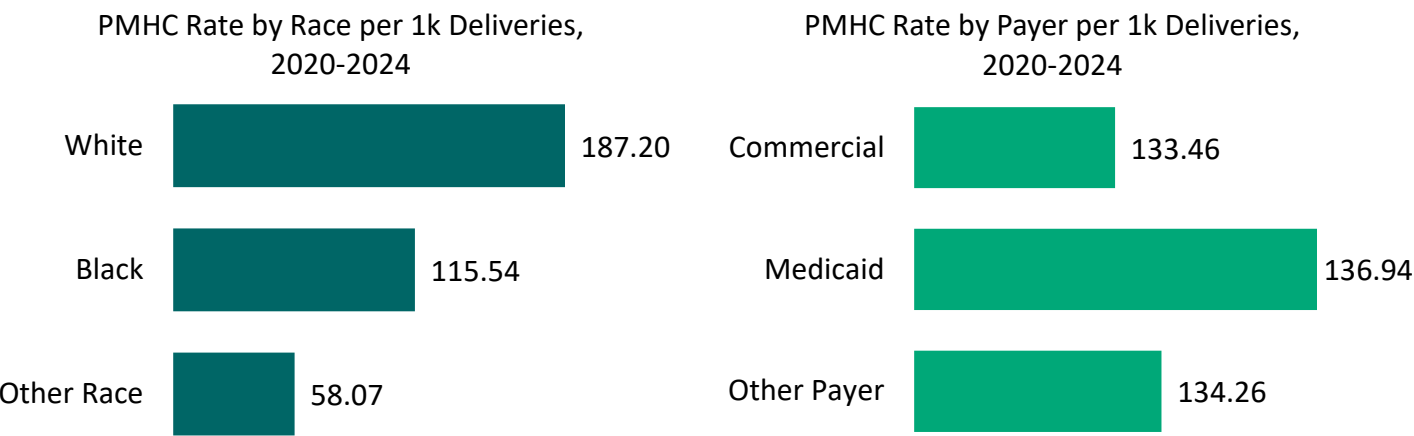
Average Length of Stay (in Days) for Virginia Deliveries, 2020-2024



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Perinatal Mental Health Conditions

Perinatal Mental Health Condition (PMHC) Rates are higher for White and Medicaid populations.



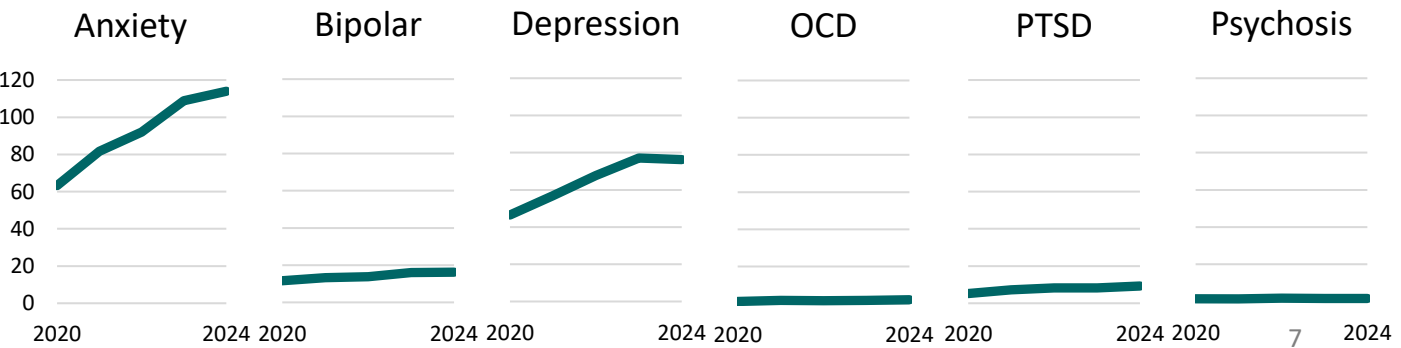
At the VNPC, Perinatal Mental Health Conditions (PMHC) follow the definition from the Alliance for Innovation in Maternal Health Care (AIM)² as the identification of one or more mental health conditions during a perinatal healthcare visit including anxiety, depression, bipolar disorder, OCD, PTSD, or psychosis. PMHC prevalence at the time of delivery is higher in White and Medicaid Populations. In 2024, PMHC prevalence was 153.67 per 1,000 inpatient deliveries which is equivalent to about 15% of all deliveries.

PMHC were prevalent in almost 19% of White deliveries, and 11.5% of Black deliveries from 2020-

2024. Rates between payer categories showed much less variability with Medicaid deliveries having a PMHC prevalence around 13.7% and 13.3% in Commercial deliveries from 2020-2024. When isolating 2024, commercial deliveries are higher at 16% compared to Medicaid deliveries at 14%.

From 2020-2024, Anxiety and Depression were the most prevalent diagnoses associated with PMHC. They have also both seen a steady rise in the last 5 years. In 2024 Anxiety had a prevalence of 113.95 per 1K deliveries, and Depression had a prevalence of 76.26 per 1k Deliveries.

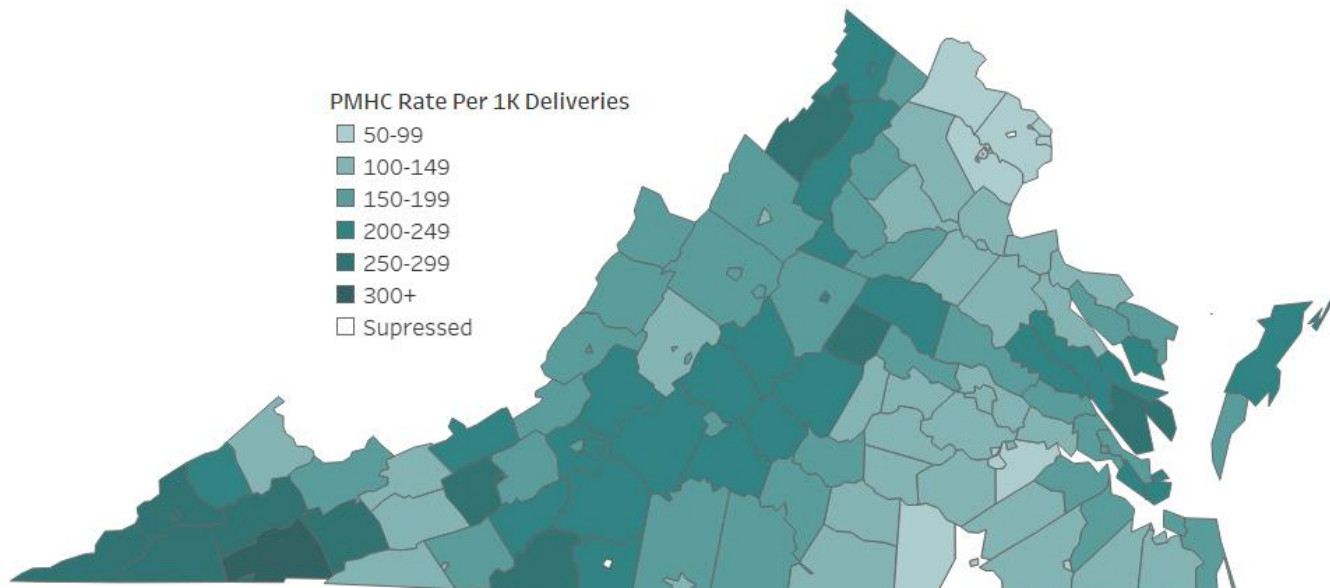
Anxiety rates have been increasing and remain highest compared to other PMHCs. OCD and PTSD rates have been steadily increasing.
PMHC Rate by Condition per 1k Deliveries, 2020-2024.



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Perinatal Mental Health Conditions

PMHC in pregnancy has a higher prevalence in Southwestern Virginia.
PMHC Prevalence per 1k deliveries, 2020-2024.



PMHCs also show great variety across the regions in Virginia. In 2024, Southwest Virginia had the highest prevalence of PMHCs at 229.09 per 1k deliveries, followed by East Virginia at 188.92 per 1k, Northwest Virginia at 181.29, Central Virginia at 125.03 per 1k, and North Virginia at 100.56. This highlights the need for targeted approaches to diagnose and treat PMHC in the different regions of Virginia.

Across the state, PMHC prevalence has jumped over 50% since 2020. North Virginia, regionally, had the largest increase with a 129% jump in PMHC prevalence since 2020. Northwest jumped 49%, Southwest jumped 39%, Central increased 36%, and East is up the least at 30%. Similar regional trends can be observed when isolating for Anxiety and Depression as well.

Project SMILE

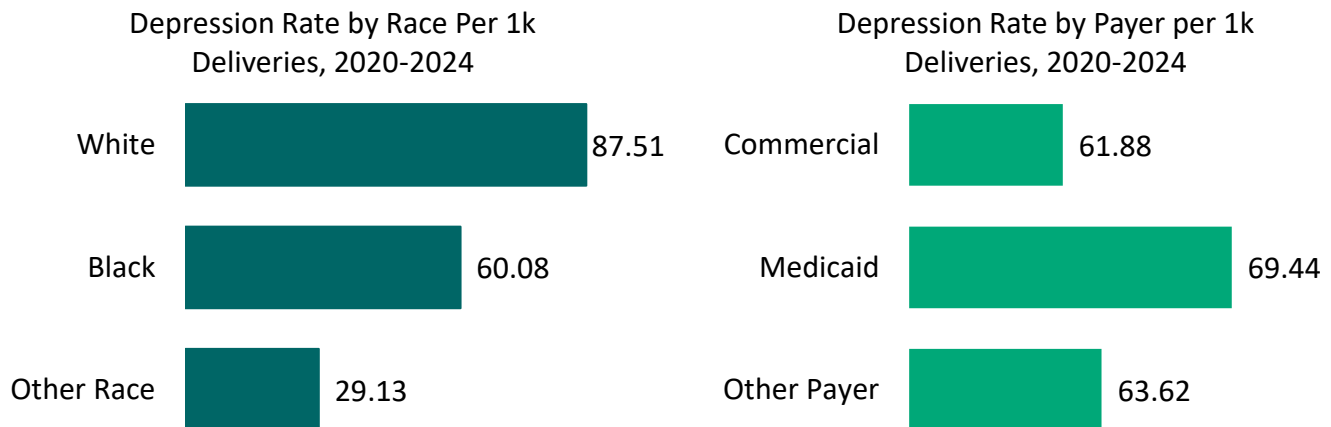
The VNPC began project SMILE (Supporting Maternal Mental Health through Initiatives, Learning, and Engagement) in spring 2024 to support clinical quality improvement work in partnering hospitals for PMHC diagnosis, treatment, and support. This had been done using the AIM patient safety bundle for Perinatal Mental Health Conditions².

As of May 2025, 21 out of 49 Virginia birth hospitals are actively engaged with the project and submitting monthly data. Early analysis has shown improvement in outcome, process, and structure measures associated with the project. Beginning in June 2025, project SMILE will rotate into sustainability for hospitals to continue the work and hold gains into the future.

Perinatal Mental Health Conditions

Depression

Depression Rates are higher for White and Medicaid populations.



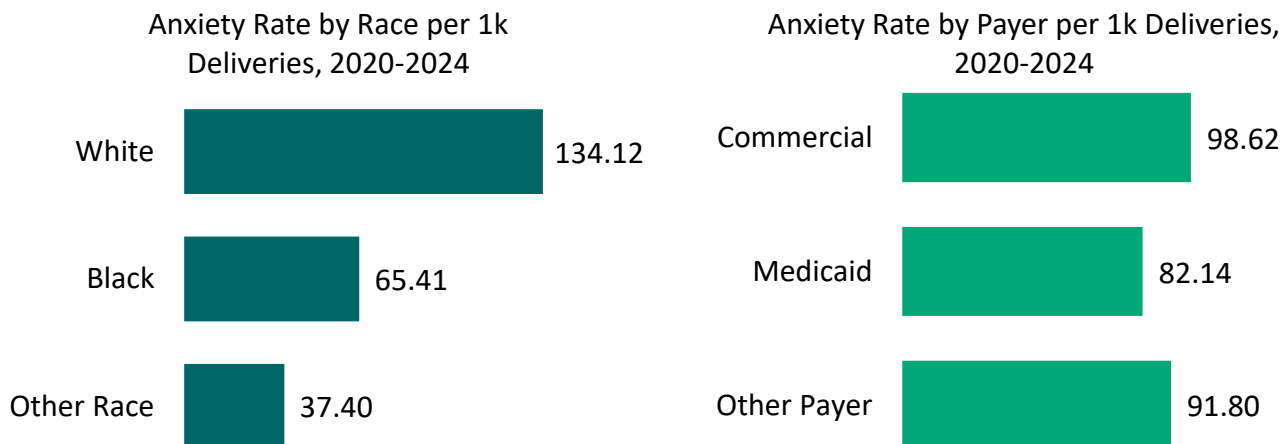
Depression and Anxiety are the most common diagnoses associated with PMHC in Virginia. From 2020-2024, Depression was identified in 6.5% of all deliveries, and Anxiety in 9.2% of all deliveries. Both conditions also show differences through race and payer categories. Understanding these differences is important to the treatment and prevention of disease.

Depression is more common in White and Medicaid supported deliveries. 8.7% of White, and 6.9% of Medicaid supported deliveries presented with a diagnosis for Depression.

Alternatively, Anxiety was more common in White deliveries with a prevalence of 13.4% of deliveries, and commercial deliveries with a prevalence of 9.8% of deliveries.

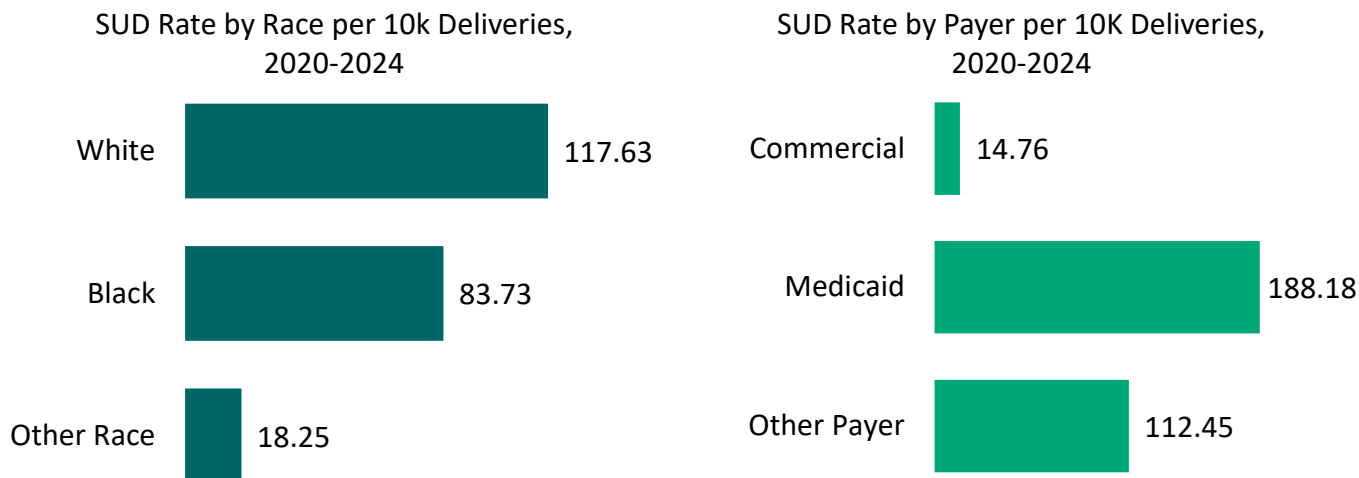
Anxiety

Among PMHCs, Anxiety Rates are higher for White and Commercial populations.



Substance Use Disorder

Substance Use Disorder (SUD) Rates are higher for White and Medicaid populations.

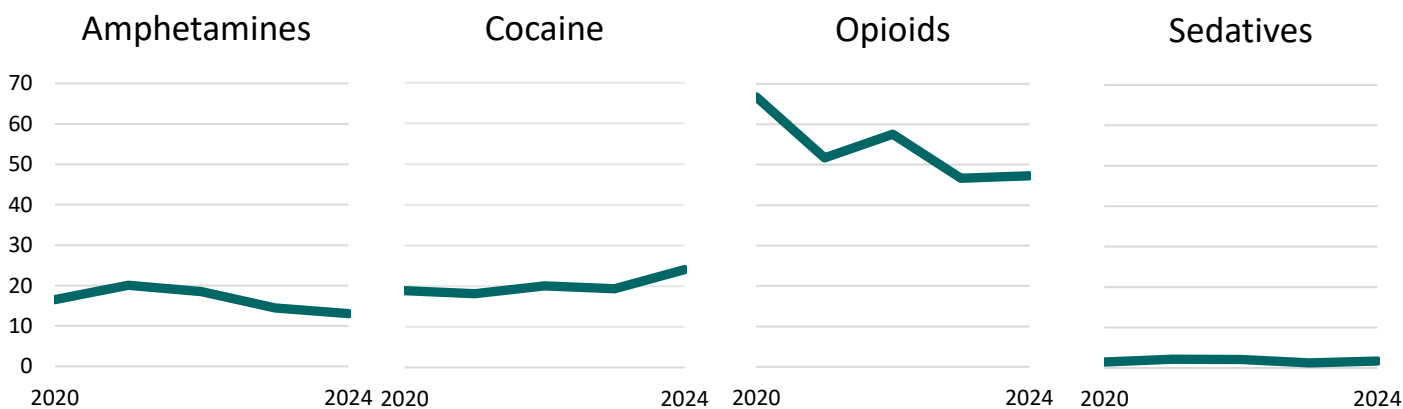


In Virginia, Substance Use Disorder rates are highest among White and Medicaid populations. The rate of Substance Use Disorder among the White population was 117.63 per 10k deliveries compared to 83.73 with their Black counterparts from 2020 to 2024. The rate of Substance Use Disorder among those with Medicaid was 188.18 per 10k deliveries compared to 112.45 that of those with Other payer sources.

When stratifying Substance Use Disorder by substance, there is notable variety when looking at Opioid use. Overall, Opioid use is decreasing in Virginia with a rate of 66.76 per 10k deliveries in 2020 and a rate of 47.21 in 2024. However, when comparing the rate of Opioid use to other substances it remains the highest, accounting for 64% of all deliveries with Substance Use Disorder in 2024.

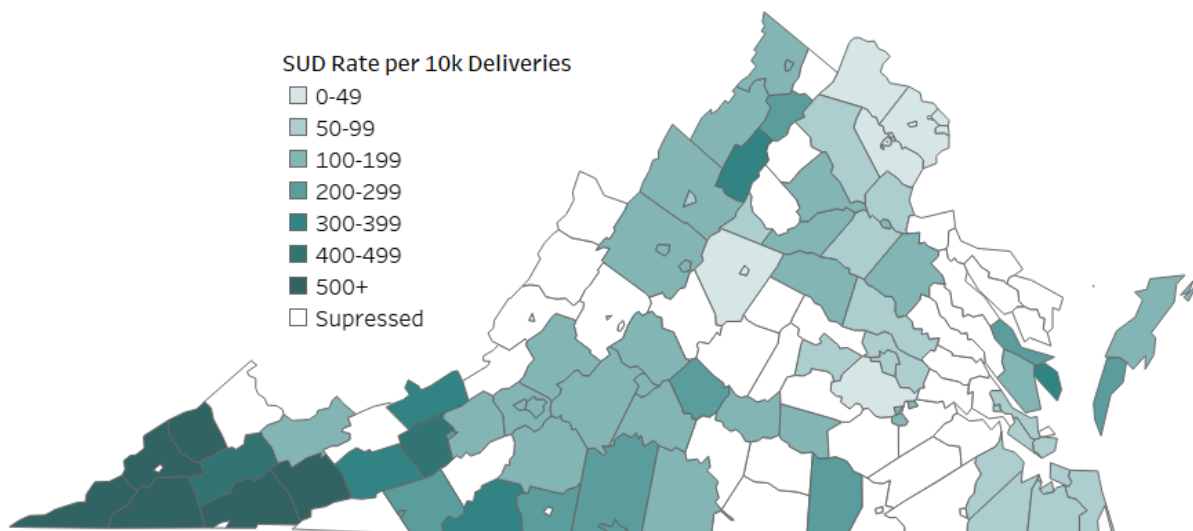
Opioid use has been decreasing but it remains higher per 10k deliveries than other SUD substances. Cocaine use has been steadily increasing.

SUD rate by substance per 10k deliveries, 2020-2024.



Substance Use Disorder

SUD in pregnancy has a higher prevalence in Southwestern Virginia.

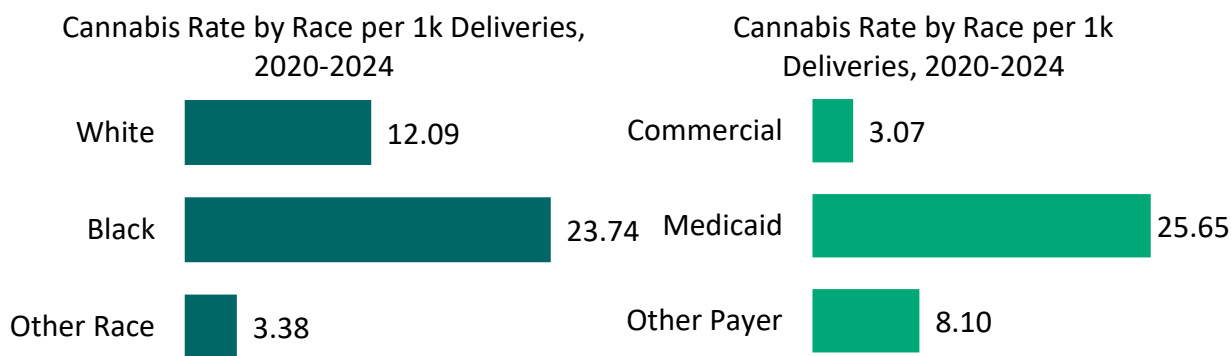


The map above highlights geographical differences that are expressed within the data respective to SUD. In 2024, Southwest Virginia had the highest prevalence of SUDs with a rate of 167.48 per 10k deliveries, followed by Northwest Virginia with a rate of 87.41 per 10k deliveries, Eastern with a rate of 83.88 per 10k deliveries, Central with a rate of 75.01 per 10k deliveries, and Northern with a rate of 22.41 per 10k deliveries.

In Virginia, Cannabis rates are highest among Black and Medicaid populations. Cannabis rates are defined by ICD-10 codes for abuse, misuse and use of cannabis identified at the time of delivery. The rate of Cannabis among the Black population was 23.74 per 1k deliveries compared to 12.09 per 1k deliveries that of their White counterparts. The rate of Cannabis among those with Medicaid payer was 25.65 compared to 8.10 that of those with Other payer sources. These data highlight a need for targeted intervention strategies to address these disparities.

Cannabis

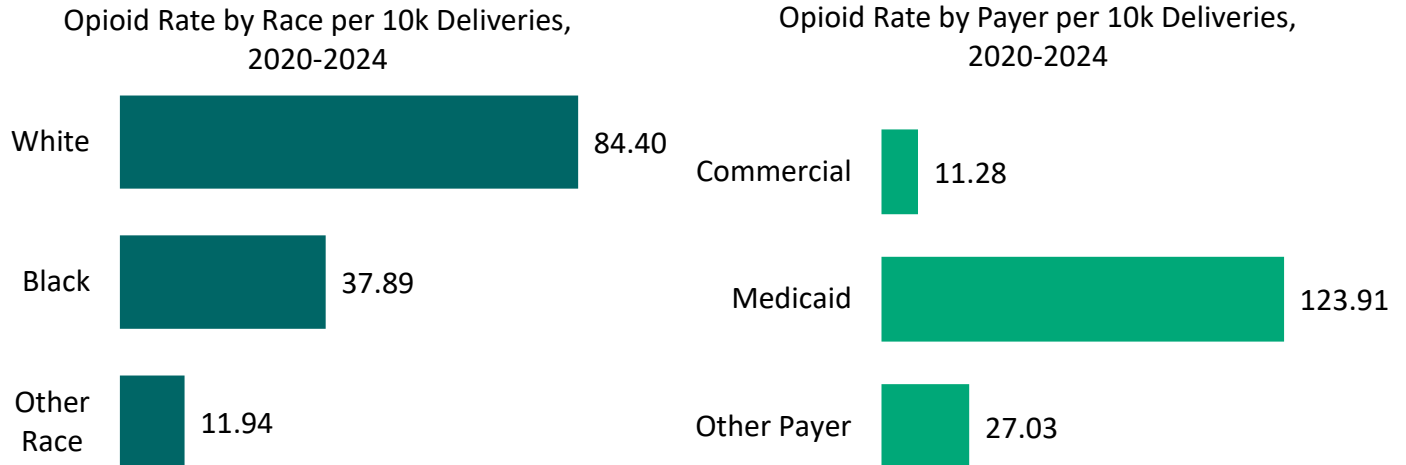
Cannabis rates are higher for Black and Medicaid populations.



Substance Use Disorder

Opioids

Opioid rates are higher for White and Medicaid populations.

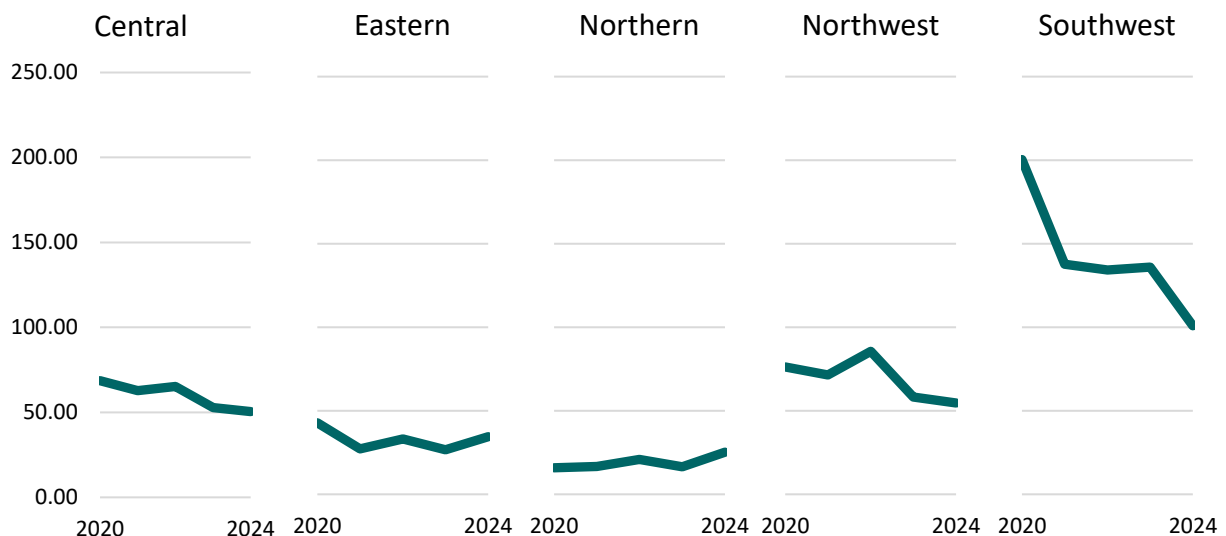


In Virginia, rates of Opioids are higher among White and Medicaid populations. From 2020 to 2024 the rate of Opioid use among the White population was 84.40 per 10k deliveries compared to 37.89 that of their Black counterparts. From 2020 to 2024 the rate of Opioid use among those with Medicaid payer was 123.91 per 10k deliveries compared to 11.28 that of those with Commercial payer.

In Virginia, Opioid use shows great variety by regions. Opioid use is highest in Southwest Virginia with a rate of 100.88 per 10k deliveries in 2024. Compared to Opioid use in Southwest Virginia in 2023, with a rate of 135.92, there is a decreased trend observed. Followed by Northwest in 2024 with a rate of 54.67 per 10k deliveries.

Opioid use is higher in Southwest Virginia but is trending down.

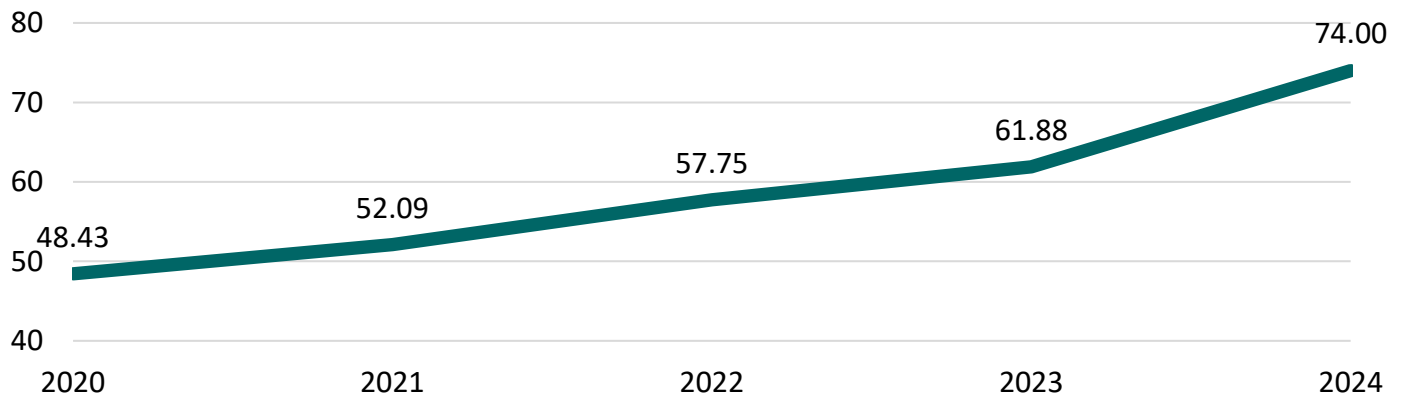
Opioid use rates per 10k deliveries by Virginia regions, 2020-2024.



Obstetric Hemorrhage

OB Hemorrhage has been steadily rising.

OB Hemorrhage per 1k deliveries, 2020-2024.

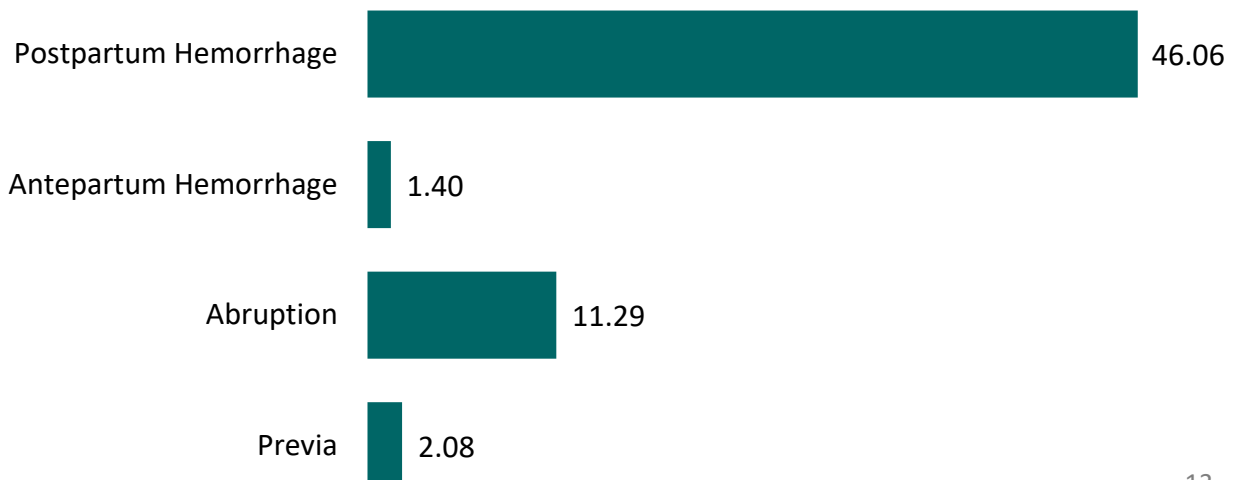


Obstetric Hemorrhage (OB Hemorrhage) is defined by excessive bleeding during pregnancy, delivery, or postpartum period. The VNPC recognizes the OB Hemorrhage as it is defined by AIM², and can be divided into categories: postpartum hemorrhage, antepartum hemorrhage, abruption, and previa. Since 2020, OB Hemorrhage rates have steadily risen in Virginia from 48.4 to 74.0 per 1k deliveries, a 53% increase. Data show little variance across race, payer, and regional disaggregation, but there are clear trends among the leading conditions for OB Hemorrhage.

Postpartum hemorrhage accounted for 82.2% of OB hemorrhage identified in the data and occurred at a rate of 46.0 per 1k deliveries from 2020 to 2024. In 2024, the postpartum hemorrhage rates was 61.5 per 1k deliveries, a 70% increase from 36.3 per 1k deliveries in 2020. Abruption or a premature separation of the placenta from the uterine wall before the baby is born, is the second most common cause of OB hemorrhage, accounting for about 20% of cases. Previa and antepartum hemorrhage are the least common forms of OB hemorrhage identified in the data.

Postpartum Hemorrhage is the leading condition for OB Hem.

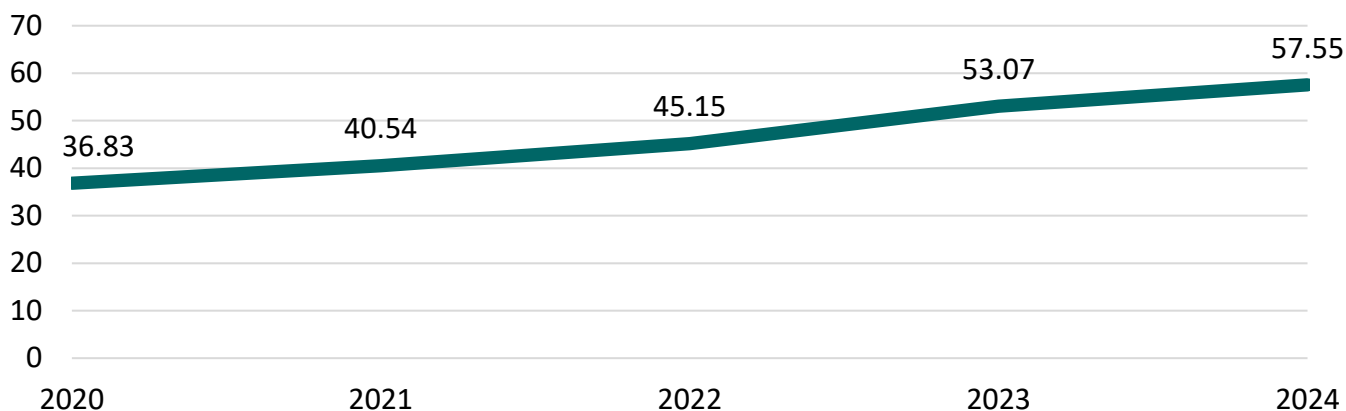
Leading causes of OB Hem per 1k deliveries, 2020-2024.



Severe Hypertension

Severe Hypertension has been steadily increasing.

Severe Hypertension per 1k deliveries, 2020-2024.



Severe Hypertension during pregnancy is defined by AIM by high blood pressure leading to conditions of pre-eclampsia, HELLP syndrome, and eclampsia. In Virginia, the rate of Severe Hypertension has been increasing steadily since 2020. From 2022 to 2024 the rate of Severe Hypertension increased from 45.15 to 57.55. In 2024, the prevalence of Severe Hypertension was 57.55 per 1000 inpatient deliveries accounting for approximately 5% of all deliveries.

Severe Hypertension prevalence at time of delivery is highest in Black and Medicaid populations. The rate of Severe Hypertension among the Black

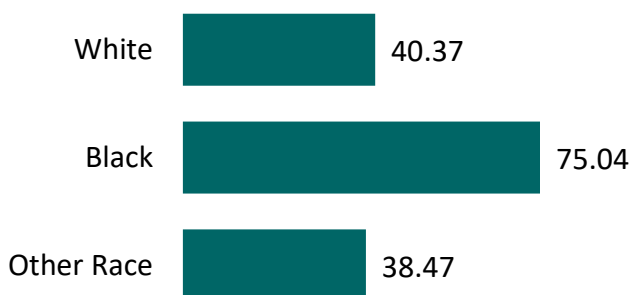
population was 75.04 compared to 40.37 that of their White counterparts, from 2020-2024.

In Virginia, Severe Hypertension rates are notably higher among deliveries with payer Medicaid. From 2020 to 2024 the rate of Severe Hypertension among those with Medicaid was 51.32 per 1K deliveries, compared to 41.70 per 1K deliveries that of those with Other payer.

When isolating 2024, Medicaid deliveries had a higher prevalence, accounting for 6% of all deliveries compared to Other payer accounting for 5% of all deliveries.

Severe Hypertension rates are higher for Black and Medicaid populations.

Severe Hypertension by Race per 1k Deliveries, 2020-2024

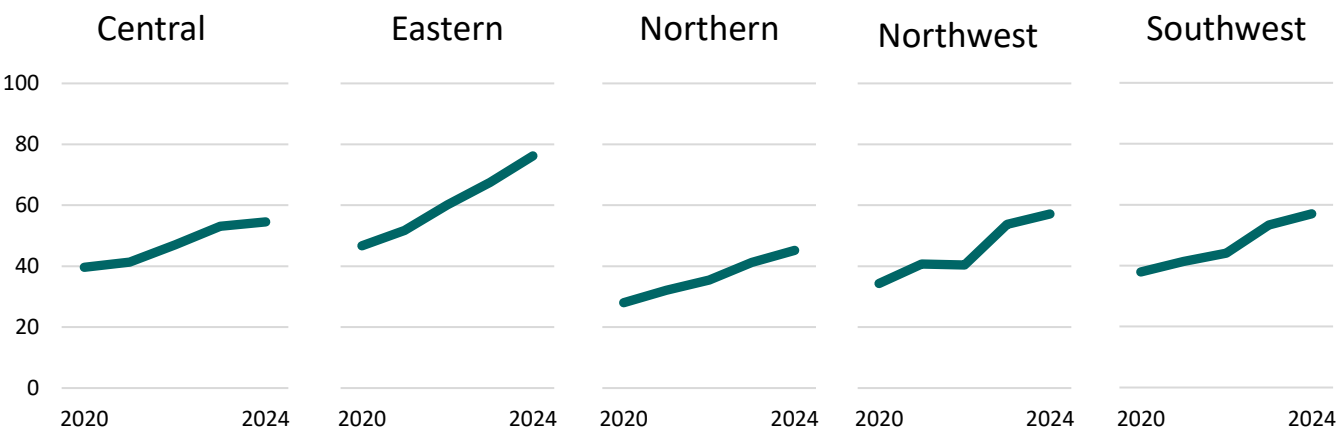


Severe Hypertension by Payer per 1k Deliveries, 2020-2024



Severe Hypertension

Severe Hypertension is highest in Eastern Virginia and has been trending upwards.
Severe Hypertension rate per 1K deliveries, 2020-2024.

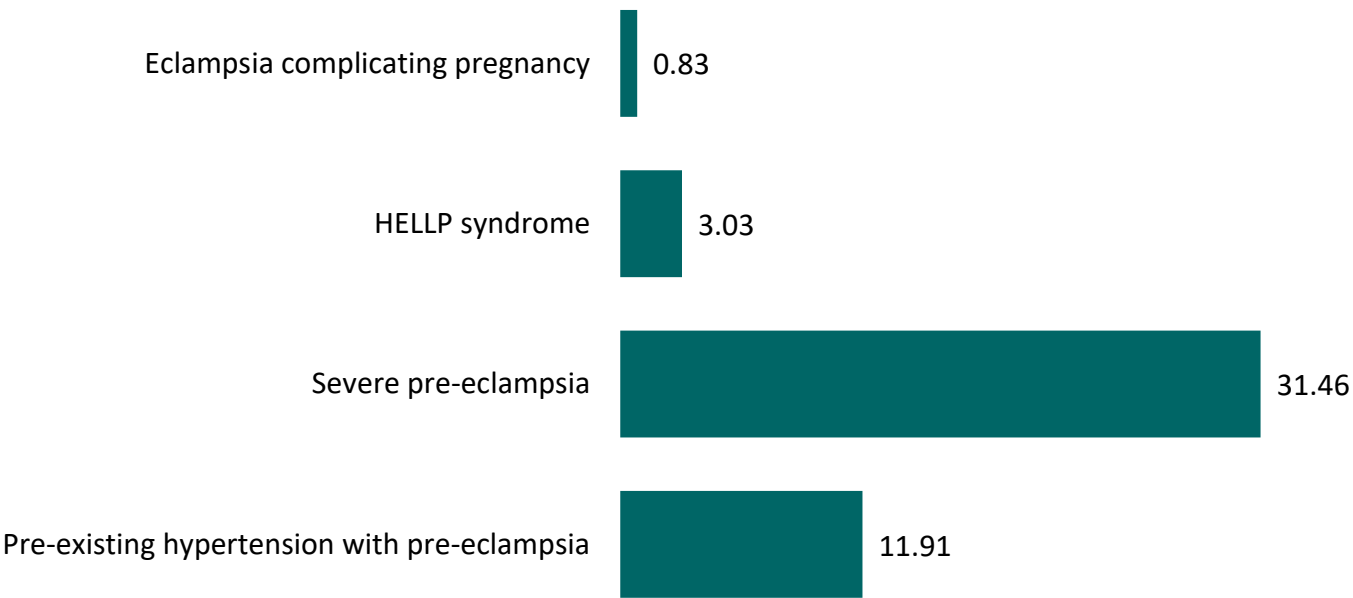


In Virginia, Severe Hypertension shows much variety by region. In 2024, Severe Hypertension was highest in Eastern Virginia at a rate of 76.20 per 1k deliveries, followed closely by Out of State with a rate of 69.61 per 1k deliveries, Northwest with a rate of 57.14 per 1k deliveries, Southwest with a rate of 57.00 per 1k, Central with a rate of 54.54 per 1k, and Northern with a rate of 45.19 per 1k deliveries. These data supports the need for targeted intervention specific to various

regions of Virginia and Severe Hypertension.

There is great variety among the leading causes of Severe Hypertension in Virginia. Severe Pre-eclampsia is the leading condition for Severe Hypertension per 1k deliveries from 2020 to 2024, with a rate of 31.46 compared to Pre-existing hypertension with pre-eclampsia with a rate of 11.91.

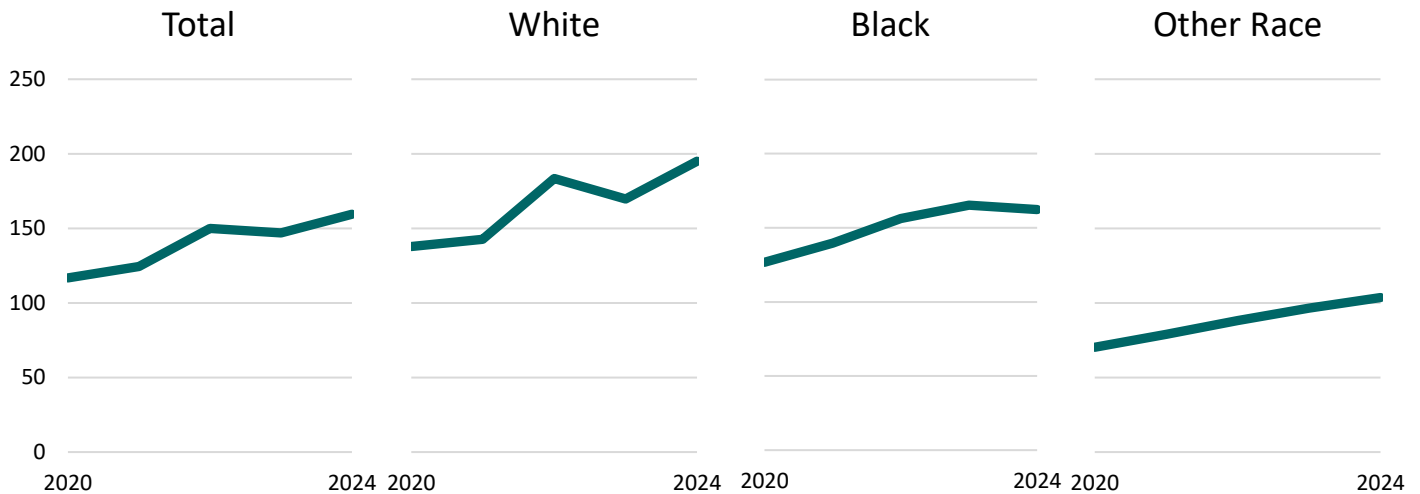
Severe Pre-eclampsia is the leading condition for Severe Hypertension.
Leading causes of Severe Hypertension per 1k deliveries, 2020-2024.



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Cardiac Conditions

Cardiac Conditions have been rising in Virginia with higher rates in White deliveries. Cardiac Conditions rates per 10k deliveries, 2020-2024.



Cardiac conditions are issues affecting the heart that can cause serious complications during pregnancy. These conditions fall into the categories of pulmonary hypertension, coronary artery disease, congenital heart disease, cardiomyopathy, cardiac valve disorder, or arrhythmias according to the AIM definition of cardiac conditions².

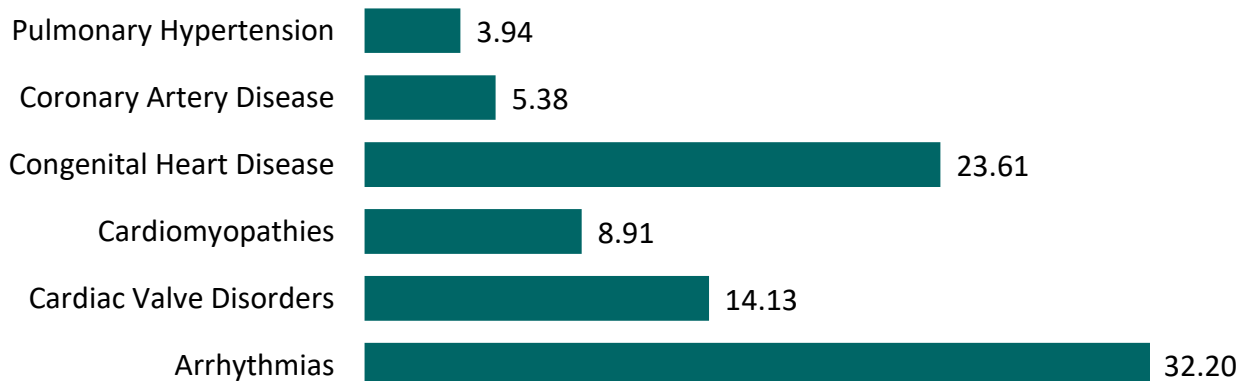
Data show cardiac conditions have been increasing since 2020 in Virginia, with higher rates in White Deliveries. Alternatively, cardiac conditions don't

show as clear of patterns with regards to payer source, but, in 2024, commercial deliveries had a higher prevalence of cardiac conditions than Medicaid supported deliveries.

Evaluating prevalence of cardiac conditions by conditions reveals that Arrhythmias are the leading cause accounting for 24% of cardiac conditions followed by congenital heart disease (17%), and cardiac valve disorders (10%).

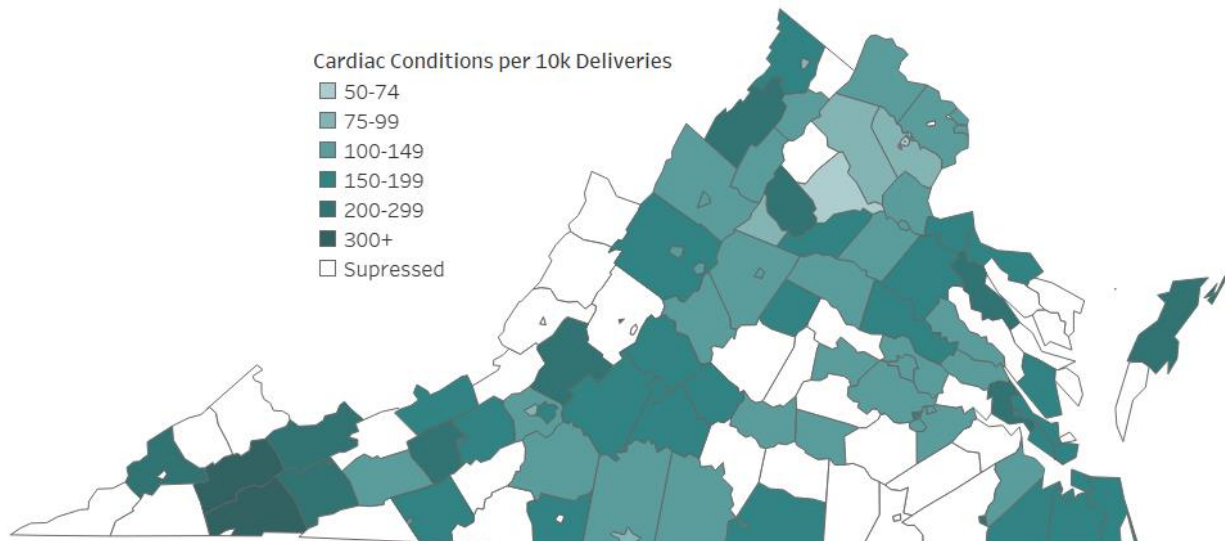
Arrhythmias and Congenital Heart Disease are leading conditions for Cardiac Conditions.

Leading causes of Cardiac Conditions per 10k deliveries, 2020-2024.



Cardiac Conditions

Cardiac Conditions have a lower prevalence in Northern and Central Virginia.

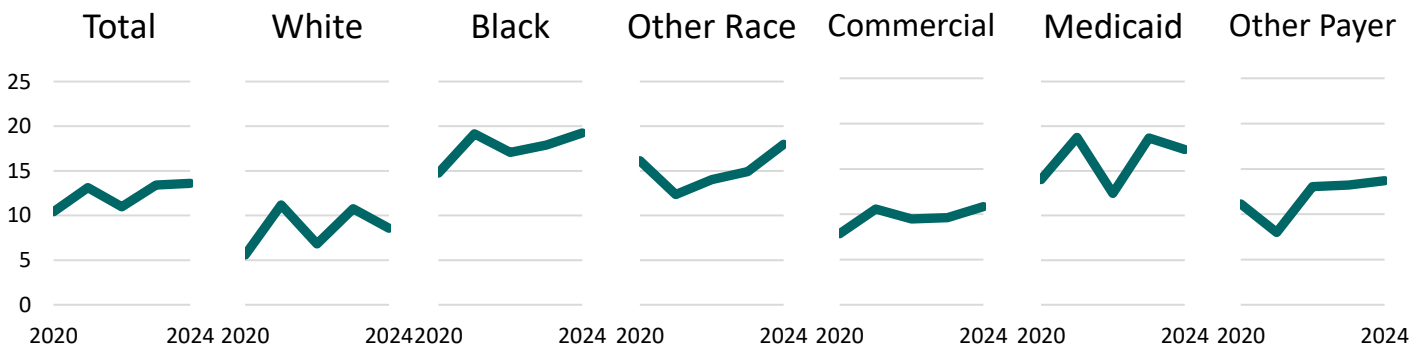


Data on Cardiac Conditions also show some variability across Virginia localities and regions. In 2024, Cardiac Conditions were most prevalent in Eastern Virginia with a rate of 201.74 per 10K deliveries, and least prevalent in Central Virginia with a rate of 126.49 per 10 deliveries. Although, before 2024, Northern Virginia typically had the

lowest rates for Cardiac Conditions. This trend is similarly seen on the map above with cardiac condition rates broken down by locality. Localities in Southwestern, and Eastern Virginia have higher rates of Cardiac Conditions when compared to other areas of the commonwealth. These differences will need to be considered for a statewide initiative.

Sepsis

Sepsis rates are variable across demographics.
Sepsis rates per 10k deliveries, 2020-2024.



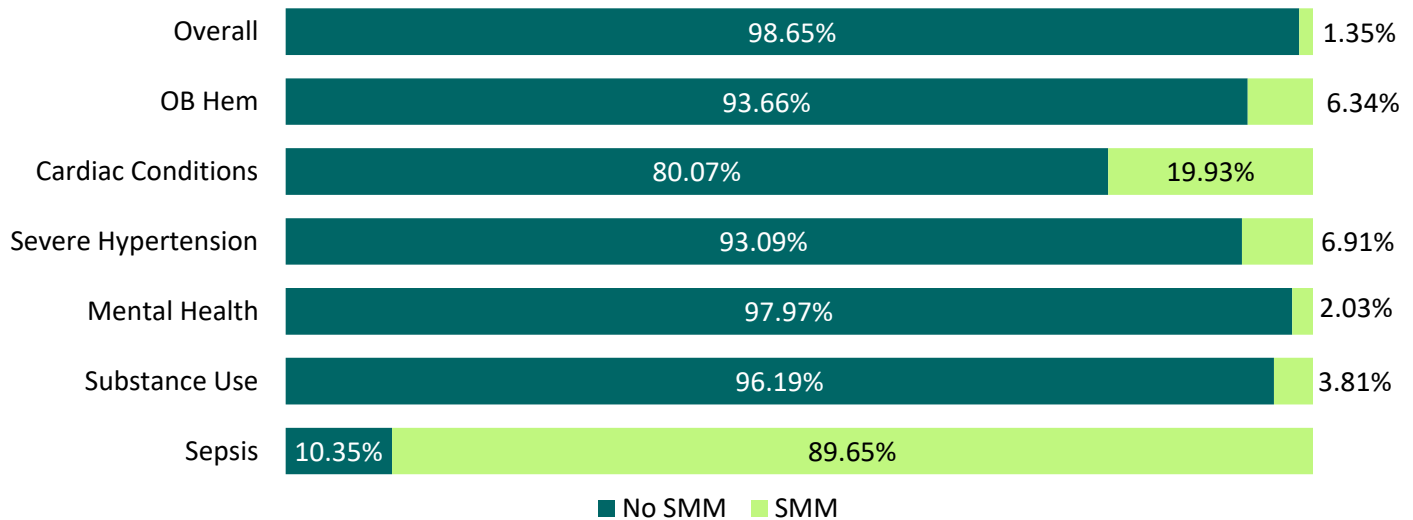
Sepsis is a severe complication from an infection in the body and requires immediate medical treatment. Sepsis in delivery shows very few trends in Virginia, but there are some key statistics to highlight. Sepsis has risen 31% since 2020 from

10.42 to 13.60 per 10k deliveries. Across these years, Sepsis rates were doubled for Black vs White deliveries and nearly doubles for Medicaid vs Commercial supported deliveries.

Severe Maternal Morbidity

SMM is more prevalent with delivery complications.

For each complication, percentage of cases with and without SMM, 2020-2024.



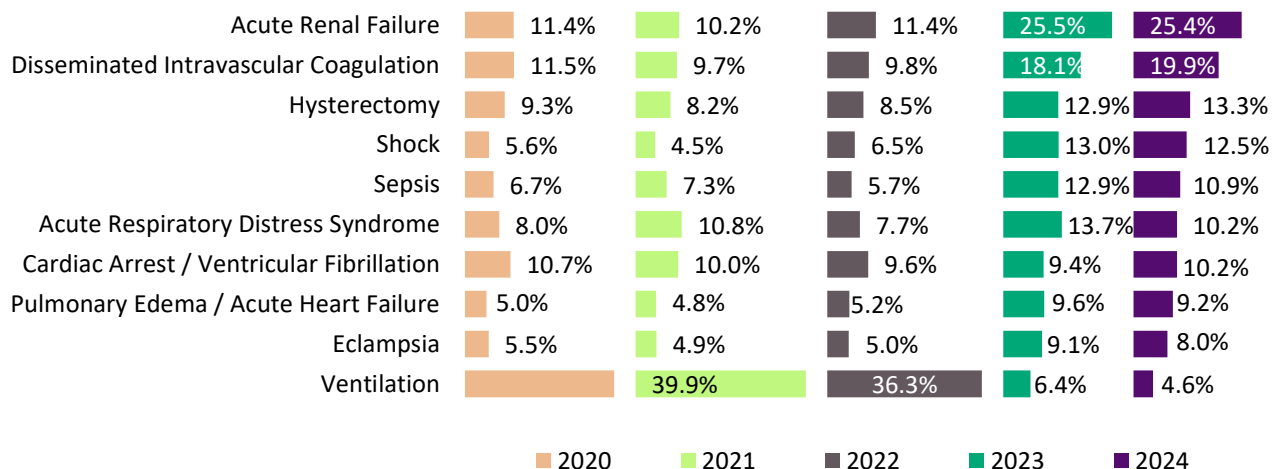
Severe Maternal Morbidity (SMM) are conditions defined by severe obstetrical complications that can have lasting consequences. The VNPC uses the definition from the CDC using 21 indicators while excluding cases that only present with blood transfusion⁶. Overall, SMM is present in about 1.35% of all deliveries, and data show all clinical indicators in this report have an increased likelihood of SMM. Sepsis has the highest percentage of SMM

at 89.65% followed by Cardiac Conditions (19.93%) and Severe Hypertension (6.91%).

5-year trends in SMM causes show Acute Renal Failure and Disseminated Intravascular Coagulation are the most reported ICD-10 codes for SMM in 2023 and 2024. During the COVID-19 pandemic, Ventilation as a cause of SMM spiked, accounting for nearly 40% of cases.

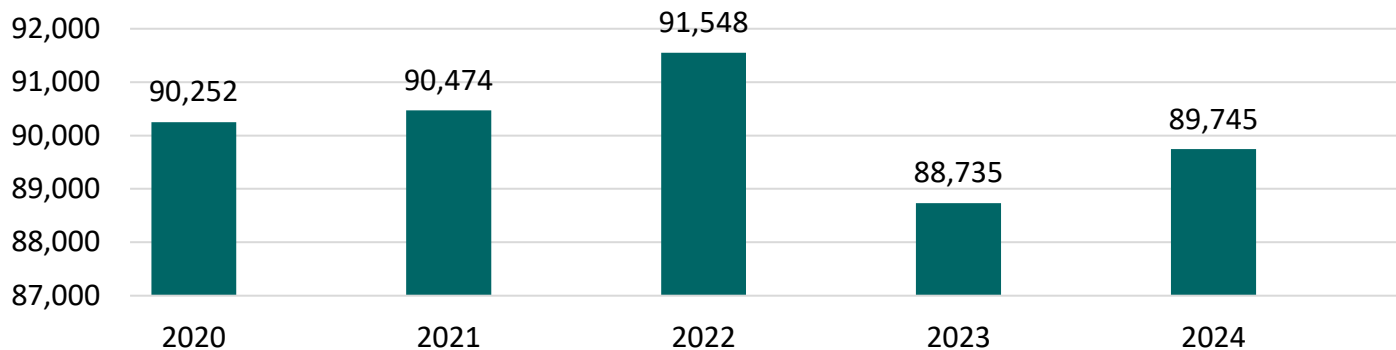
Ventilation peaked during COVID-19 pandemic, but now Acute Renal Failure is leading cause of Severe Maternal Morbidity.

SMM causes as a percent of all SMM cases annually, 2020-2024.

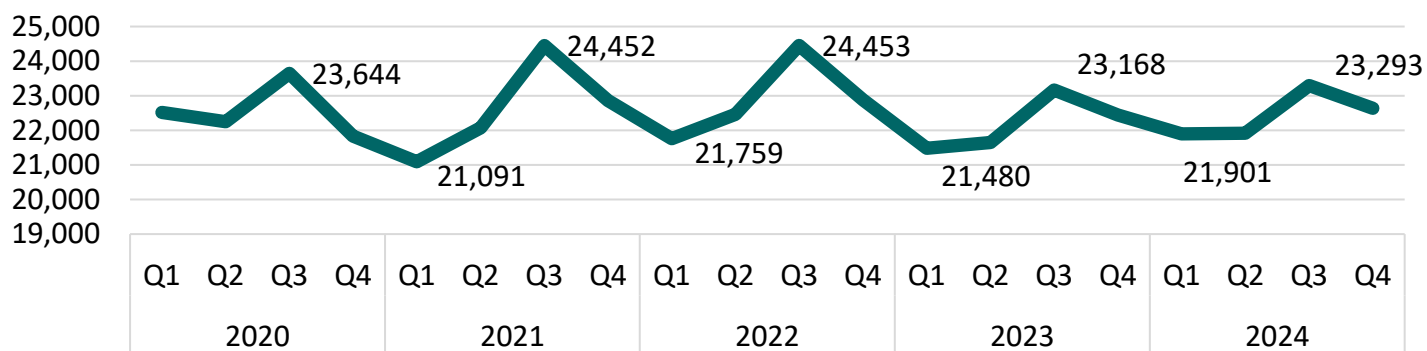


Newborn Demographics

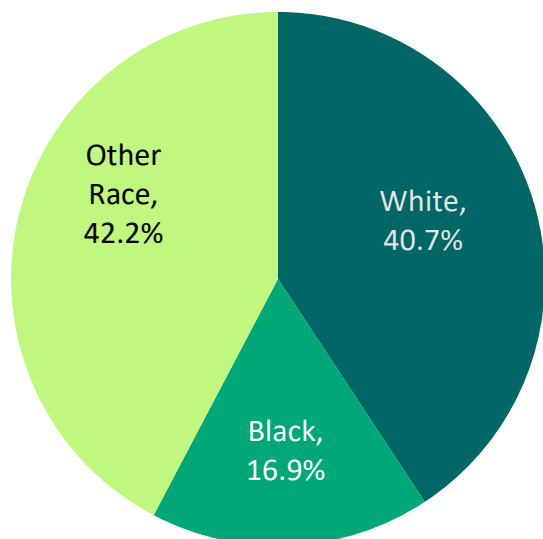
Virginia Inpatient Newborn Deliveries, 2020-2024



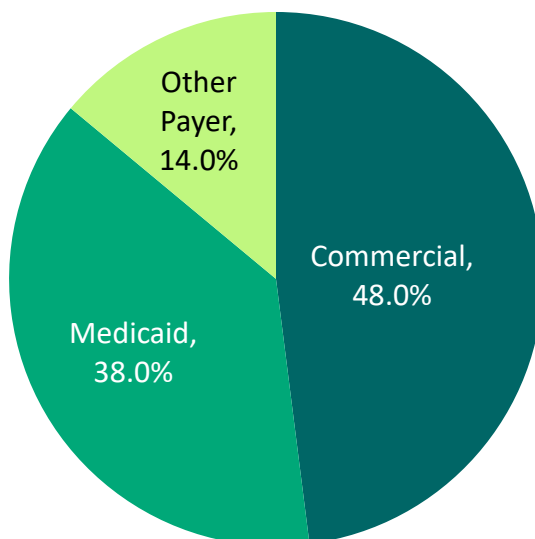
Virginia Inpatient Newborn Deliveries by Quarter, 2020-2024



Newborn Demographics by Race, 2020-2024



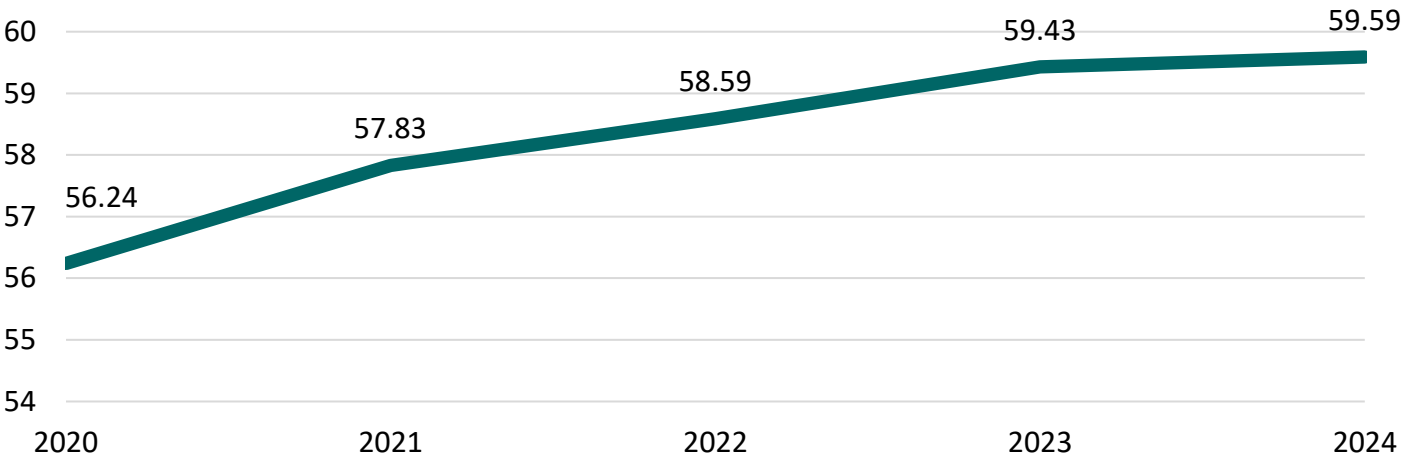
Newborn Demographics by Payer, 2020-2024



Conditions Originating in the Perinatal Period

Conditions Originating in the Perinatal Period (COPp) have been increasing.

Rate of COPp per 100 Newborns, 2020-2024

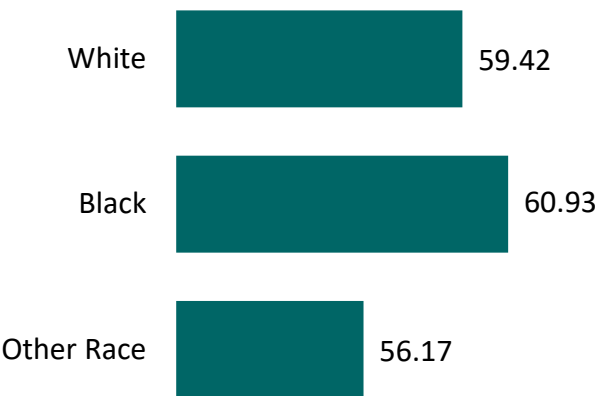


Conditions Originating in the Perinatal Period (COPp) among newborns are classified as disorders of newborn related to the length of gestation and fetal growth, abnormal findings on neonatal screening, birth trauma, respiratory and cardiovascular disorders specific to the perinatal period.¹The COPp rate has increased steadily, about 6%, since 2020. From 2020 to 2024 the rate of Conditions Originating in the Perinatal Period increased from 56.24 to 59.59.

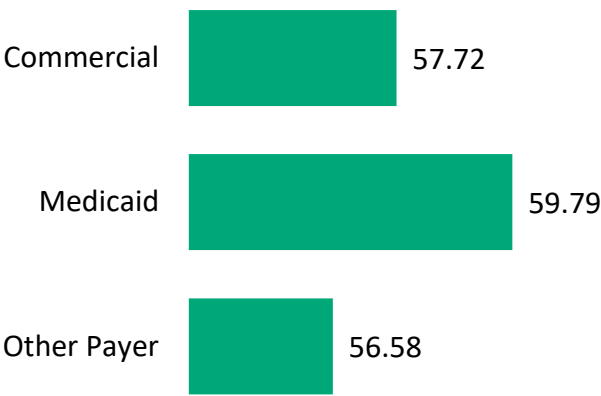
In Virginia, for COPp, rates are highest among Black and Medicaid populations. The COPp rates among the Black population showed little variation with a rate of 60.93 per 100 newborns compared to 59.42 that of their White counterparts. The COPp rate for those with Medicaid was 59.79 per 100 newborns compared to 56.58 that of those with Other payer sources.

Conditions Originating in the Perinatal Period rates are higher for Black and Medicaid populations.

COPp by Race per 100 Newborns, 2020-2024



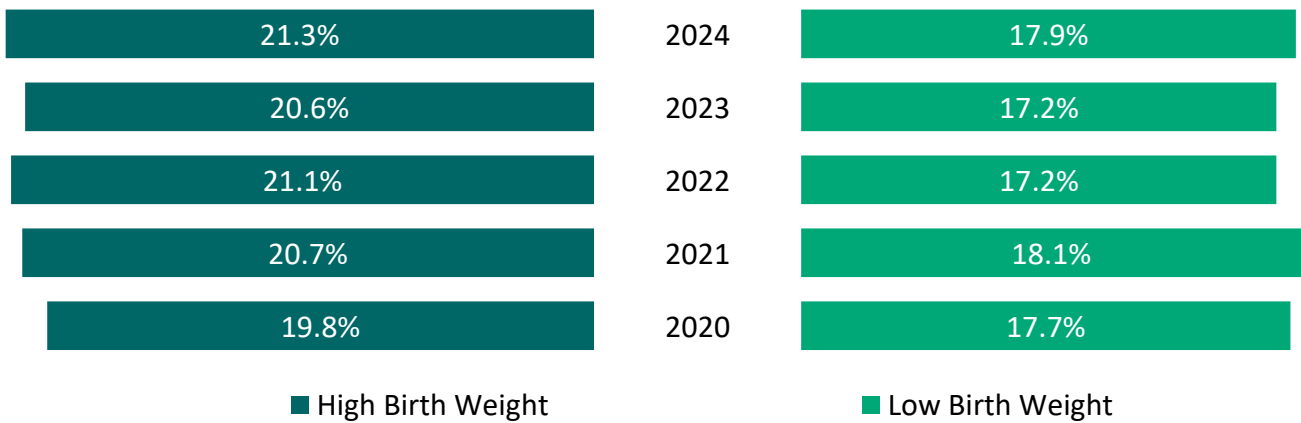
COPp by Payer per 100 Newborns, 2020-2024



VNPC presents this data as reported in hospital discharge records. We acknowledge that the information reflects coding practices by various providers across the Commonwealth.

Conditions Originating in the Perinatal Period

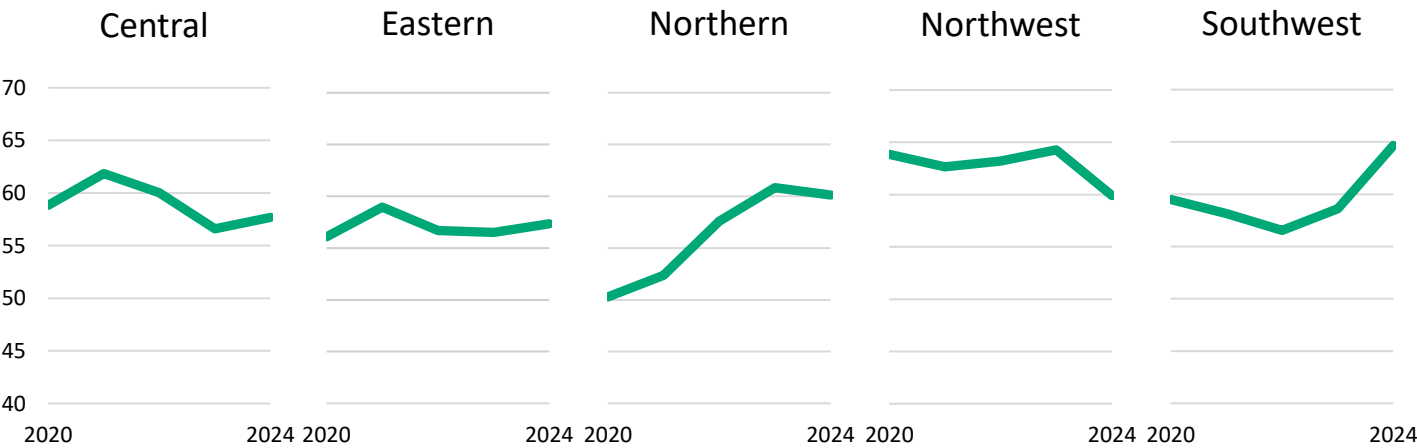
High and Low Birth Weight for COPp per 100 Newborns, 2020-2024



Birth weight is an important factor to analyze with respect to newborn deliveries. According to the CDC, in 2022, preterm birth and low birth weight accounted for about 14.0% infant deaths⁷. The prevalence of low birth weight among newborns with Conditions Originating in the Perinatal Period has remained steady from 2020 to 2024, peaking in 2021 at 18.1%. The prevalence of high birth weight among newborns with Conditions Originating in the Perinatal Period is increasing, from 19.8% in 2020 to 21.3% in 2024.

Among newborn deliveries in Virginia with Conditions Originating in the Perinatal Period, there is much variability by region. In Virginia in 2024, Conditions Originating in the Perinatal Period were highest in Southwest Virginia at a rate of 64.66 per 100 deliveries, followed closely by Northern with a rate of 60.13 per 100 deliveries, Northwest with a rate of 59.91 per 100 deliveries, Out of State with a rate of 59.34 per 100, Central with a rate of 57.68 per 100, and Eastern with a rate of 57.33 per 100 deliveries.

COPp among newborns are highest in Southwest Virginia and have been trending upwards from 2020 to 2024.

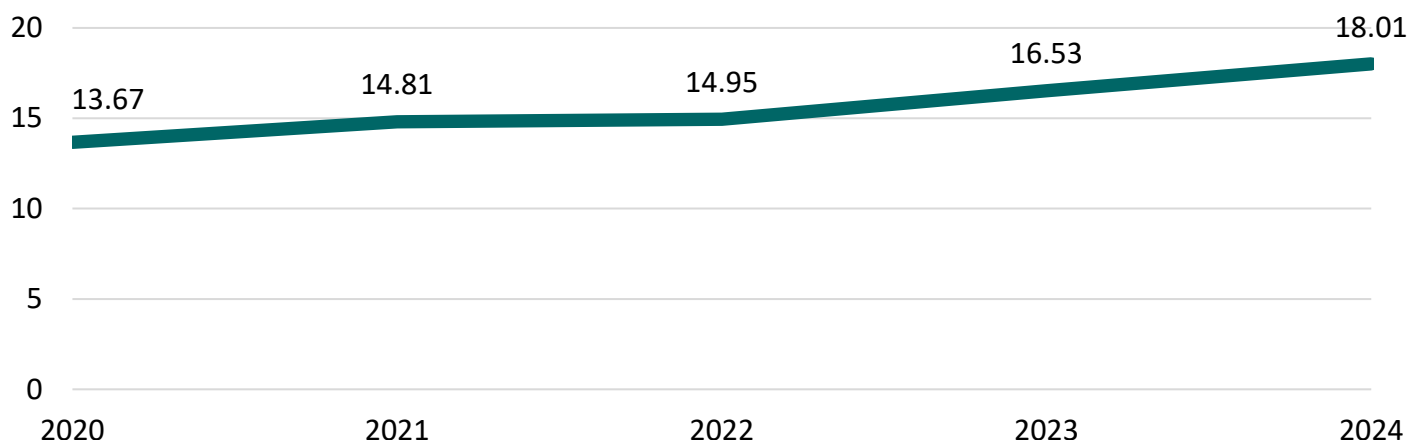


VNPC presents this data as reported in hospital discharge records. We acknowledge that the information reflects coding practices by various providers across the Commonwealth.

Congenital Malformations, Deformations, and Chromosomal Abnormalities

Congenital Conditions (CMDCA) have been increasing.

Rate of Congenital Conditions per 100 Newborns, 2020-2024



Congenital malformations, deformations, and chromosomal abnormalities (CMDCA) among newborns have been steadily increasing from 2020 to 2024. The rate of Congenital malformations, deformations, and chromosomal abnormalities has increased from 14.95 per 100 newborns in 2022 to 18.01 in 2024.

CMDCA at time of delivery were highest among Black and Medicaid populations. The rate of Congenital malformations, deformations, and chromosomal abnormalities among the Black

population was 18.06 per 100 newborns compared to 13.37 that of their White counterparts.

The CMDCA rate among those with Medicaid was 16.38 per 100 newborns compared to 13.98 that of those with Other payer sources. When isolating by 2024, the CMDCA rate among those with Medicaid as a payer source was 18.33 compared to 18.80 that of those with Commercial payer.

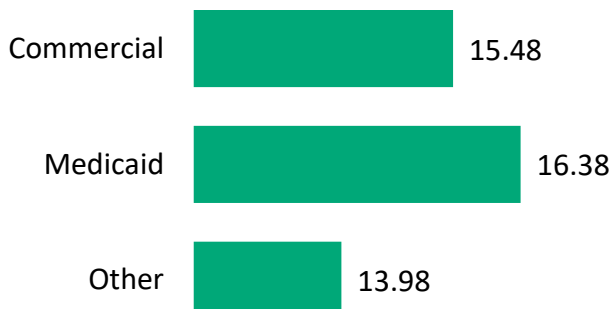
These data highlight a need for intervention to address such disparities as well as analysis.

Congenital Conditions (CMDCA) rates are higher for Black and Medicaid populations.

CMDCA by Race per 100 Newborns, 2020-2024

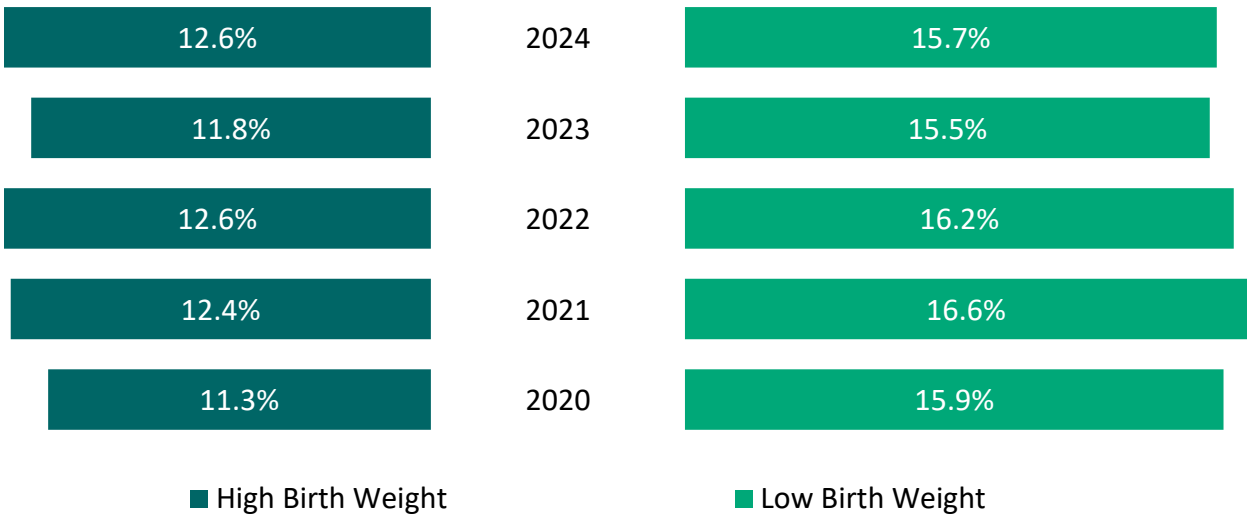


CMDCA by Payer per 100 Newborns, 2020-2024



Congenital Malformations, Deformations, and Chromosomal Abnormalities

High and Low Birth Weight for CMDCA per 100 Newborns, 2020-2024

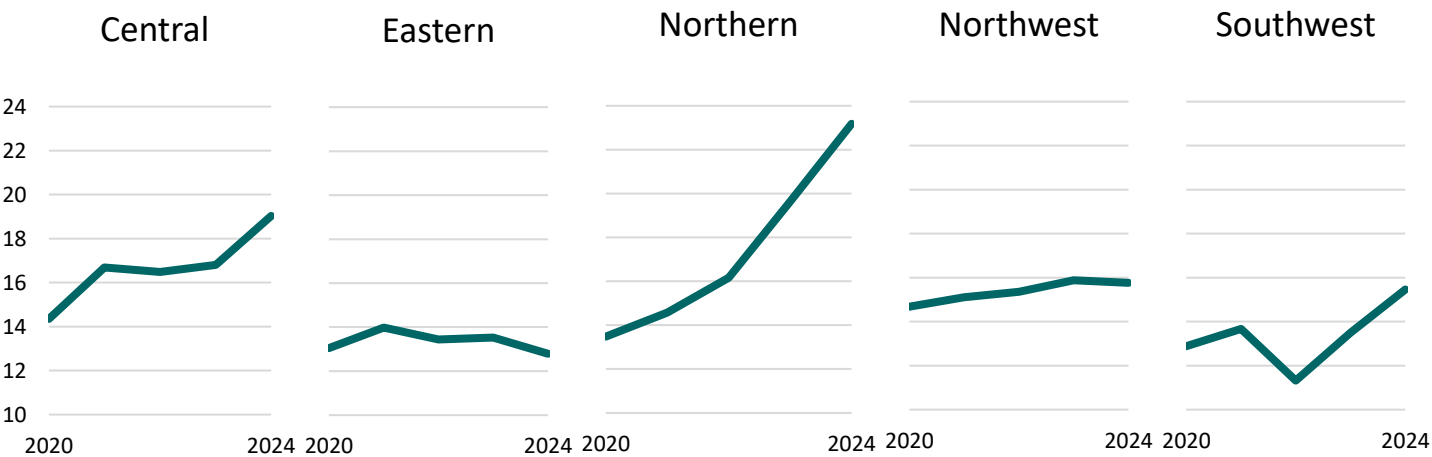


The prevalence of low birth weight among newborns with CMDCA has remained steady from 2020 to 2024, peaking in 2021 at 16.6% of newborns. In 2024, low birth weight was 24% more prevalent in newborns with CMDCA vs the total population.

The prevalence of high birth weight among newborns with CMDCA has remained steady as well, peaking in 2022 and 2024 at a prevalence of 12.6%.

About equal to the prevalence of high birth weight in the overall population in 2024. Among newborn deliveries in Virginia with CMDCA, there is much variability by region. In Virginia in 2024, CMDCA rates were highest in Northern Virginia at a rate of 23.18 per 100 deliveries, followed by Central with a rate of 19.03 per 100 deliveries, Northwest with a rate of 15.77 per 100, Southwest with a rate of 15.46 per 100, and Eastern with a rate of 12.79 per 100 deliveries.

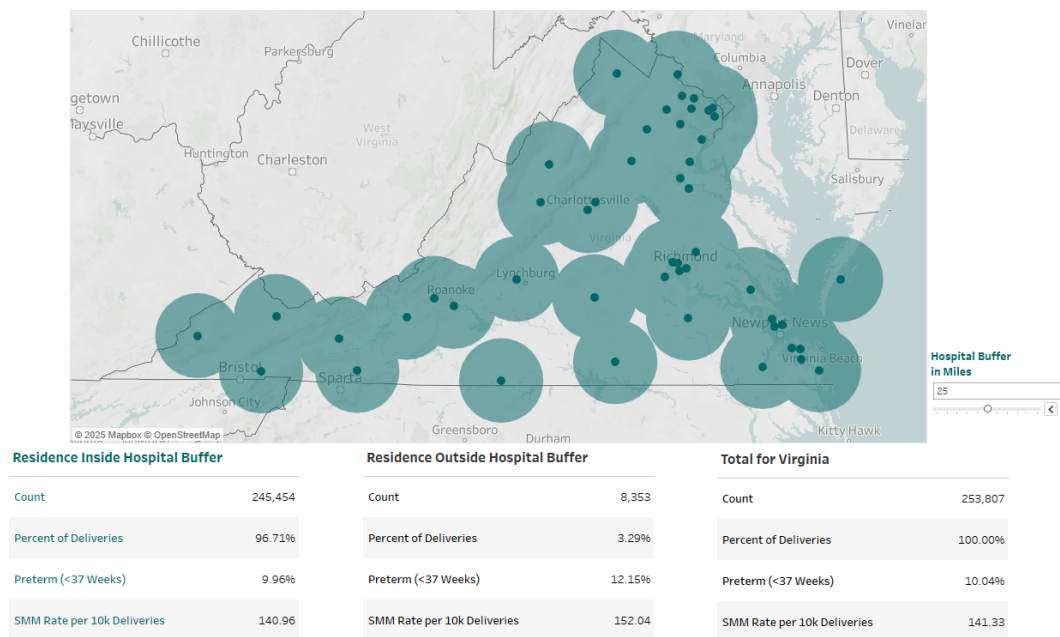
CMDCA among newborns are highest in Northern Virginia and have been trending upwards. CMDCA rates per 100 newborns, 2020-2024.



VNPC presents this data as reported in hospital discharge records. We acknowledge that the information reflects coding practices by various providers across the Commonwealth.

Access to Care

Being further from a hospital is correlated to worse health outcomes.



As of May 2025, Virginia has 49 birthing hospitals (hospital with a labor & delivery unit). This is a nearly 30% decrease from the 68 birthing hospitals Virginia had in 2012. These hospital closures have increased the burden on facilities and made it harder for many mothers to get the care they need.

The map above is illustrating each of the 49 birthing

hospitals with a 25-mile buffer radius. Below the map, the data tables are highlighting that preterm birth and SMM rates are higher when maternal residence is greater than 25 miles to the nearest hospital. When residence is greater than 25 miles, preterm births occur 22% more, and SMM occurs 8% more. These discrepancies continue to get higher as the maternal residence increases.



49 Birthing Hospitals in Virginia



26 Freestanding Emergency Departments



82 Traditional Emergency Departments



103 Total Hospitals



29 Neonatal Intensive Care Units (NICUs)



21 Free Standing Birth Centers

Virginia Birthing Hospital Levels of Care

Levels of Maternal Care⁴

- Level <I – 4
- Level I – 17
- Level II – 12
- Level III – 1
- Level IV – 3

Levels of Neonatal Care³

- Level <2 – 9
- Level II – 19
- Level III – 7
- Level IV – 3

References

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3. American Academy of Pediatrics. (2012). Levels of Neonatal Care. PEDIATRICS, 130(3), 587–597. <https://doi.org/10.1542/peds.2012-1999>
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7. Centers for Disease Control and Prevention. (2024, September 16). Infant Mortality. Centers for Disease Control and Prevention. <https://www.cdc.gov/maternal-infant-health/infant-mortality/index.html>
8. Virginia Hospital and Healthcare Association. (2025). Maternal Health Dashboard.
9. Virginia Hospital and Healthcare Association. (2025). Newborn Health Dashboard.
10. Virginia Law Library. "§ 32.1-276.6. Patient Level Data System Continued; Reporting Requirements." <https://law.lis.virginia.gov/vacode/title32.1/chapter7.2/section32.1-276.6/>

Appendix – Data Tables

Delivery Demographics

Hospital Deliveries										
	2020		2021		2022		2023		2024	
Total Delivery Count	87,330		87,684		89,366		87,269		88,235	
	Count	%	Count	%	Count	%	Count	%	Count	%
Race										
White	44,839	51.3%	45,623	52.0%	45,370	50.8%	43,688	50.1%	43,226	49.0%
Black	18,303	21.0%	17,762	20.3%	17,587	19.7%	16,760	19.2%	16,634	18.9%
Other Race	24,188	27.7%	24,299	27.7%	26,409	29.6%	26,841	30.8%	28,375	32.2%
Payer										
Commercial	45,907	52.6%	47,249	53.9%	46,515	52.0%	44,803	51.3%	45,238	51.3%
Medicaid	30,641	35.1%	30,412	34.7%	32,872	36.8%	32,629	37.4%	32,774	37.1%
Other Payer	10,782	12.3%	10,023	11.4%	9,979	11.2%	9,837	11.3%	10,223	11.6%
Health Region										
Central	15,489	17.7%	15,959	18.2%	15,895	17.8%	15,465	17.7%	15,732	17.8%
Eastern	18,266	20.9%	18,066	20.6%	18,645	20.9%	18,214	20.9%	18,241	20.7%
Northern	26,406	30.2%	26,452	30.2%	27,096	30.3%	26,266	30.1%	26,332	29.8%
Northwest	13,547	15.5%	13,709	15.6%	13,950	15.6%	14,005	16.0%	14,071	15.9%
Southwest	10,232	11.7%	10,094	11.5%	10,205	11.4%	9,785	11.2%	10,210	11.6%
Out of State	3,390	3.9%	3,404	3.9%	3,575	4.0%	3,532	4.0%	3,649	4.1%
Delivery Method										
Vaginal	58,246	66.7%	58,564	66.8%	59,728	66.8%	58,305	66.8%	59,245	67.1%
Cesarean	29,084	33.3%	29,120	33.2%	29,638	33.2%	28,964	33.2%	28,990	32.9%
Age										
>20	3,338	3.8%	3,066	3.5%	2,969	3.3%	2,982	3.4%	2,913	3.3%
20-29	37,854	43.3%	36,775	41.9%	37,033	41.4%	35,661	40.9%	36,213	41.0%
30-39	42,580	48.8%	44,194	50.4%	45,396	50.8%	44,529	51.0%	44,852	50.8%
40+	3,558	4.1%	3,649	4.2%	3,968	4.4%	4,097	4.7%	4,253	4.8%

Appendix – Data Tables

Perinatal Mental Health Conditions

Perinatal Mental Health Conditions															
Mental Health	2020			2021			2022			2023			2024		
Total Count (Rate)	8,914 (102.07)			10,882 (124.10)			12,312 (137.77)			13,589 (155.72)			13,559 (153.67)		
Rate per 1k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	6,293	70.6%	140.35	7,789	71.6%	170.73	8,628	70.1%	190.17	9,572	70.4%	219.10	9,323	68.8%	215.68
Black	1,659	18.6%	90.64	1,878	17.3%	105.73	2,065	16.8%	117.42	2,181	16.0%	130.13	2,225	16.4%	133.76
Other Race	962	10.8%	39.77	1,215	11.2%	50.00	1,619	13.1%	61.30	1,836	13.5%	68.40	2,011	14.8%	70.87
Payer															
Commercial	4,169	46.8%	90.81	5,594	51.4%	118.39	6,421	52.2%	138.04	7,178	52.8%	160.21	7,231	53.3%	159.84
Medicaid	3,658	41.0%	119.38	4,084	37.5%	134.29	4,553	37.0%	138.51	4,870	35.8%	149.25	4,696	34.6%	143.28
Other Payer	1,087	12.2%	100.82	1,204	11.1%	120.12	1,338	10.9%	134.08	1,541	11.3%	156.65	1,632	12.0%	159.64
Health Region															
Central	1,428	16.0%	92.19	1,803	16.6%	112.98	1,910	15.5%	120.16	2,087	15.4%	134.95	1,967	14.5%	125.03
Eastern	2,662	29.9%	145.74	3,140	28.9%	173.81	3,240	26.3%	173.77	3,475	25.6%	190.79	3,446	25.4%	188.92
Northern	1,162	13.0%	44.01	1,600	14.7%	60.49	2,160	17.5%	79.72	2,496	18.4%	95.03	2,648	19.5%	100.56
Northwest	1,653	18.5%	122.02	2,055	18.9%	149.90	2,302	18.7%	165.02	2,592	19.1%	185.08	2,551	18.8%	181.29
Southwest	1,684	18.9%	164.58	1,822	16.7%	180.50	2,175	17.7%	213.13	2,321	17.1%	237.20	2,339	17.3%	229.09
Out of State	325	3.6%	95.87	462	4.2%	135.72	525	4.3%	146.85	618	4.5%	174.97	608	4.5%	166.62
Diagnosis															
Anxiety	5,525	62.0%	63.27	7,168	65.9%	81.75	8,225	66.8%	92.04	9,507	70.0%	108.94	9,944	73.3%	113.95
Bipolar Disorder	1,016	11.4%	11.63	1,168	10.7%	13.32	1,225	9.9%	13.71	1,403	10.3%	16.08	1,416	10.4%	16.23
Depression	4,061	45.6%	46.50	4,990	45.9%	56.91	6,050	49.1%	67.70	6,730	49.5%	77.12	6,655	49.1%	76.26
OCD	106	1.2%	1.21	149	1.4%	1.70	144	1.2%	1.61	152	1.1%	1.74	186	1.4%	2.13
PTSD	457	5.1%	5.23	628	5.8%	7.16	736	6.0%	8.24	726	5.3%	8.32	809	6.0%	9.27
Psychosis	130	1.5%	1.49	122	1.1%	1.39	159	1.3%	1.78	143	1.1%	1.64	142	1.0%	1.63

Appendix – Data Tables

Perinatal Mental Health Conditions

Depression	2020			2021			2022			2023			2024		
Total Count (Rate)	4,061 (46.50)			4,990 (56.91)			6,050 (67.70)			6,730 (77.12)			6,655 (76.26)		
Rate per 1k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	2,796	68.9%	62.36	3,478	69.7%	76.23	4,171	68.9%	91.93	4,571	67.9%	104.63	4,427	66.5%	102.42
Black	824	20.3%	45.02	941	18.9%	52.98	1,062	17.6%	60.39	1,205	17.9%	71.90	1,166	17.5%	70.10
Other Race	441	10.9%	18.23	571	11.4%	23.50	817	13.5%	30.94	954	14.2%	35.54	1,062	16.0%	37.43
Payer															
Commercial	1,781	43.9%	38.80	2,408	48.3%	50.96	3,059	50.6%	65.76	3,443	51.2%	76.85	3,485	52.4%	77.04
Medicaid	1,805	44.4%	58.91	2,042	40.9%	67.14	2,327	38.5%	70.79	2,540	37.7%	77.84	2,376	35.7%	72.50
Other Payer	475	11.7%	44.05	540	10.8%	53.88	664	11.0%	66.54	747	11.1%	75.94	794	11.9%	77.67
Health Region															
Central	676	16.6%	49.90	888	17.8%	64.77	938	15.5%	67.24	1,064	15.8%	75.97	906	13.6%	64.39
Eastern	1,375	33.9%	52.07	1,587	31.8%	60.00	1,676	27.7%	61.85	1,794	26.7%	68.30	1,798	27.0%	68.28
Northern	258	6.4%	14.12	430	8.6%	23.80	909	15.0%	48.75	1,133	16.8%	62.20	1,273	19.1%	69.79
Northwest	798	19.7%	51.52	1,014	20.3%	63.54	1,147	19.0%	72.16	1,210	18.0%	78.24	1,174	17.6%	74.62
Southwest	826	20.3%	80.73	881	17.7%	87.28	1,115	18.4%	109.26	1,223	18.2%	124.99	1,181	17.7%	115.67
Out of State	128	3.2%	37.76	190	3.8%	55.82	265	4.4%	74.13	306	4.5%	86.64	323	4.9%	88.52
Anxiety	2020			2021			2022			2023			2024		
Total Count (Rate)	5,525 (63.27)			7,168 (81.75)			8,225 (92.04)			9,507 (108.94)			9,944 (113.95)		
Rate per 1k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	4,148	75.1%	92.51	5,373	75.0%	117.77	6,051	73.6%	133.37	7,045	74.1%	161.26	7,163	72.0%	165.71
Black	808	14.6%	44.15	1,046	14.6%	58.89	1,150	14.0%	65.39	1,255	13.2%	74.88	1,393	14.0%	83.74
Other Race	569	10.3%	23.52	749	10.4%	30.82	1,024	12.4%	38.77	1,207	12.7%	44.97	1,388	14.0%	48.92
Payer															
Commercial	2,837	51.3%	61.80	3,990	55.7%	84.45	4,637	56.4%	99.69	5,402	56.8%	120.57	5,727	57.6%	126.60
Medicaid	2,021	36.6%	65.96	2,372	33.1%	78.00	2,693	32.7%	81.92	3,011	31.7%	92.28	3,033	30.5%	92.54
Other Payer	667	12.1%	61.86	806	11.2%	80.42	895	10.9%	89.69	1,094	11.5%	111.21	1,184	11.9%	115.82
Health Region															
Central	784	14.2%	57.87	1,063	14.8%	77.54	1,147	13.9%	82.22	1,362	14.3%	97.25	1,330	13.4%	94.52
Eastern	1,680	30.4%	63.62	2,129	29.7%	80.49	2,151	26.2%	79.38	2,410	25.3%	91.75	2,492	25.1%	94.64
Northern	811	14.7%	44.40	1,154	16.1%	63.88	1,524	18.5%	81.74	1,822	19.2%	100.03	2,020	20.3%	110.74
Northwest	998	18.1%	64.43	1,357	18.9%	85.03	1,554	18.9%	97.77	1,840	19.4%	118.98	1,931	19.4%	122.74
Southwest	1,025	18.6%	100.18	1,146	16.0%	113.53	1,476	17.9%	144.63	1,628	17.1%	166.38	1,684	16.9%	164.94
Out of State	227	4.1%	66.96	319	4.5%	93.71	373	4.5%	104.34	445	4.7%	125.99	487	4.9%	133.46

Appendix – Data Tables

Substance Use Disorder

Substance Use Disorder															
Substance Use Disorder	2020			2021			2022			2023			2024		
Total Count (Rate)	820 (93.90)			715 (81.54)			774 (86.61)			639 (73.22)			644 (72.99)		
Rate per 10k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	623	76.0%	138.94	550	76.9%	120.55	564	72.9%	124.31	452	70.7%	103.46	436	67.7%	100.87
Black	150	18.3%	81.95	127	17.8%	71.50	164	21.2%	93.25	134	21.0%	79.95	153	23.8%	91.98
Other Race	47	5.7%	19.43	38	5.3%	15.64	45	5.8%	17.04	53	8.3%	19.75	55	8.5%	19.38
Payer															
Commercial	78	9.5%	16.99	83	11.6%	17.57	71	9.2%	15.26	55	8.6%	12.28	53	8.2%	11.72
Medicaid	679	82.8%	221.60	592	82.8%	194.66	654	84.5%	198.95	544	85.1%	166.72	521	80.9%	158.97
Other Payer	133	16.2%	123.35	117	16.4%	116.73	116	15.0%	116.24	89	13.9%	90.47	118	18.3%	115.43
Health Region															
Central	120	14.6%	77.47	132	18.5%	82.71	144	18.6%	90.59	108	16.9%	69.84	118	18.3%	75.01
Eastern	181	22.1%	99.09	125	17.5%	69.19	140	18.1%	75.09	125	19.6%	68.63	153	23.8%	83.88
Northern	39	4.8%	14.77	42	5.9%	15.88	58	7.5%	21.41	51	8.0%	19.42	59	9.2%	22.41
Northwest	162	19.8%	119.58	167	23.4%	121.82	172	22.2%	123.30	133	20.8%	94.97	123	19.1%	87.41
Southwest	287	35.0%	280.49	226	31.6%	223.90	235	30.4%	230.28	201	31.5%	205.42	171	26.6%	167.48
Out of State	31	3.8%	91.45	23	3.2%	67.57	25	3.2%	69.93	21	3.3%	59.46	20	3.1%	54.81
Substance															
Amphetamines	144	17.6%	16.49	176	24.6%	20.07	165	21.3%	18.46	126	19.7%	14.44	114	17.7%	13.06
Cocaine	165	20.1%	18.89	159	22.2%	18.13	179	23.1%	20.03	169	26.4%	19.37	210	32.6%	24.06
Opioids	583	71.1%	66.76	453	63.4%	51.66	514	66.4%	57.52	407	63.7%	46.64	412	64.0%	47.21
Sedatives	13	1.6%	1.49	19	2.7%	2.17	19	2.5%	2.13	11	1.7%	1.26	15	2.3%	1.72

Appendix – Data Tables

Substance Use Disorder

Opioids	2020			2021			2022			2023			2024		
Total Count (Rate)	583 (66.76)			453 (51.66)			514 (57.52)			407 (46.64)			412 (46.69)		
Rate per 10k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	489	83.9%	109.06	374	82.6%	81.98	410	79.8%	90.37	306	75.2%	70.04	305	74.0%	70.56
Black	62	10.6%	33.87	58	12.8%	32.65	74	14.4%	42.08	64	15.7%	38.19	71	17.2%	42.68
Other Race	32	5.5%	13.23	21	4.6%	8.64	30	5.8%	11.36	37	9.1%	13.78	36	8.7%	12.69
Payer															
Commercial	63	10.8%	13.72	68	15.0%	14.39	54	10.5%	11.61	36	8.8%	8.04	39	9.5%	8.62
Medicaid	485	83.2%	158.28	366	80.8%	120.35	426	82.9%	129.59	349	85.7%	106.96	342	83.0%	104.35
Other Payer	35	6.0%	32.46	19	4.2%	18.96	31	6.0%	31.07	22	5.4%	22.36	31	7.5%	30.32
Health Region															
Central	93	16.0%	68.65	86	19.0%	62.73	91	17.7%	65.23	74	18.2%	52.84	71	17.2%	50.46
Eastern	113	19.4%	42.79	72	15.9%	27.22	90	17.5%	33.22	70	17.2%	26.65	91	22.1%	34.56
Northern	29	5.0%	15.88	30	6.6%	16.61	39	7.6%	20.92	30	7.4%	16.47	46	11.2%	25.22
Northwest	118	20.2%	76.18	114	25.2%	71.43	136	26.5%	85.56	90	22.1%	58.20	86	20.9%	54.67
Southwest	205	35.2%	200.35	139	30.7%	137.71	137	26.7%	134.25	133	32.7%	135.92	103	25.0%	100.88
Out of State	25	4.3%	73.75	12	2.6%	35.25	21	4.1%	58.74	10	2.5%	28.31	15	3.6%	41.11
Cannabis	2020			2021			2022			2023			2024		
Total Count (Rate)	944 (10.81)			1,088 (12.41)			1,137 (12.72)			1,042 (11.94)			990 (11.22)		
Rate per 1k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	444	47.0%	9.90	562	51.7%	12.32	608	53.5%	13.40	564	54.1%	12.91	516	52.1%	11.94
Black	415	44.0%	22.67	451	41.5%	25.39	436	38.3%	24.79	376	36.1%	22.43	389	39.3%	23.39
Other Race	85	9.0%	3.51	75	6.9%	3.09	93	8.2%	3.52	102	9.8%	3.80	85	8.6%	3.00
Payer															
Commercial	136	14.4%	2.96	160	14.7%	3.39	142	12.5%	3.05	138	13.2%	3.08	130	13.1%	2.87
Medicaid	739	78.3%	24.12	865	79.5%	28.44	921	81.0%	28.02	835	80.1%	25.59	723	73.0%	22.06
Other Payer	69	7.3%	6.40	63	5.8%	6.29	74	6.5%	7.42	69	6.6%	7.01	137	13.8%	13.40
Health Region															
Central	131	13.9%	9.67	143	13.1%	10.43	160	14.1%	11.47	112	10.7%	8.00	102	10.3%	7.25
Eastern	322	34.1%	12.19	360	33.1%	13.61	301	26.5%	11.11	270	25.9%	10.28	314	31.7%	11.92
Northern	64	6.8%	3.50	70	6.4%	3.87	60	5.3%	3.22	66	6.3%	3.62	48	4.8%	2.63
Northwest	161	17.1%	10.39	202	18.6%	12.66	207	18.2%	13.02	175	16.8%	11.32	129	13.0%	8.20
Southwest	240	25.4%	23.46	282	25.9%	27.94	377	33.2%	36.94	379	36.4%	38.73	372	37.6%	36.43
Out of State	26	2.8%	7.67	31	2.8%	9.11	32	2.8%	8.95	40	3.8%	11.33	25	2.5%	6.85

Appendix – Data Tables

Obstetric Hemorrhage

Obstetric Hemorrhage															
	2020			2021			2022			2023			2024		
Total Count (Rate)	4,264 (48.43)			4,567 (52.09)			5,161 (57.75)			5,400 (61.88)			6,529 (74.00)		
Rate per 1k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	2,083	48.9%	46.46	2,364	51.8%	51.82	2,556	49.5%	56.34	2,681	49.6%	61.37	3,162	48.4%	73.15
Black	925	21.7%	50.54	935	20.5%	52.64	1,056	20.5%	60.04	1,045	19.4%	62.35	1,287	19.7%	77.37
Other Race	1,256	29.5%	51.93	1,268	27.8%	52.18	1,549	30.0%	58.65	1,674	31.0%	62.37	2,080	31.9%	73.30
Payer															
Commercial	2,159	50.6%	47.03	2,440	53.4%	51.64	2,647	51.3%	56.91	2,718	50.3%	60.67	3,350	51.3%	74.05
Medicaid	1,584	37.1%	51.70	1,612	35.3%	53.01	1,980	38.4%	60.23	2,089	38.7%	64.02	2,457	37.6%	74.97
Other Payer	521	12.2%	48.32	515	11.3%	51.38	534	10.3%	53.51	593	11.0%	60.28	722	11.1%	70.63
Health Region															
Central	747	17.5%	48.23	815	17.8%	51.07	909	17.6%	57.19	977	18.1%	63.17	1,137	17.4%	72.27
Eastern	949	22.3%	51.95	1,018	22.3%	56.35	1,080	20.9%	57.92	1,188	22.0%	65.22	1,499	23.0%	82.18
Northern	1,152	27.0%	43.63	1,178	25.8%	44.53	1,403	27.2%	51.78	1,464	27.1%	55.74	1,711	26.2%	64.98
Northwest	664	15.6%	49.01	746	16.3%	54.42	744	14.4%	53.33	812	15.0%	57.98	1,014	15.5%	72.06
Southwest	602	14.1%	58.84	621	13.6%	61.52	813	15.8%	79.67	742	13.7%	75.83	903	13.8%	88.44
Out of State	150	3.5%	44.25	189	4.1%	55.52	182	3.5%	50.91	217	4.0%	61.44	265	4.1%	72.62
Condition															
Previa	179	4.2%	2.05	187	4.1%	2.13	176	3.4%	1.97	181	3.4%	2.07	188	2.9%	2.15
Abruptio	922	21.6%	10.56	985	21.6%	11.23	1,009	19.6%	11.29	998	18.5%	11.44	1,043	16.0%	11.95
Antepartum Hemorrhage	102	2.4%	1.17	141	3.1%	1.61	114	2.2%	1.28	126	2.3%	1.44	132	2.0%	1.51
Postpartum Hemorrhage	3,172	74.4%	36.32	3,398	74.4%	38.75	4,009	77.7%	44.86	4,262	78.9%	48.84	5,370	82.2%	61.54

Appendix – Data Tables

Severe Hypertension

Severe Hypertension															
	2020			2021			2022			2023			2024		
Total Count (Rate)	3,216 (36.83)			3,555 (40.54)			4,035 (45.15)			4,631 (53.07)			5,078 (57.55)		
Rate per 1k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	1,399	43.5%	31.20	1,602	45.1%	35.11	1,770	43.9%	39.01	2,002	43.2%	45.82	2,192	43.2%	50.71
Black	1,119	34.8%	61.14	1,120	31.5%	63.06	1,296	32.1%	73.69	1,408	30.4%	84.01	1,552	30.6%	93.30
Other Race	698	21.7%	28.86	833	23.4%	34.28	969	24.0%	36.69	1,221	26.4%	45.49	1,334	26.3%	47.01
Payer															
Commercial	1,601	49.8%	34.87	1,843	51.8%	39.01	2,036	50.5%	43.77	2,254	48.7%	50.31	2,452	48.3%	54.20
Medicaid	1,254	39.0%	40.93	1,358	38.2%	44.65	1,602	39.7%	48.73	1,901	41.0%	58.26	2,099	41.3%	64.04
Other Payer	361	11.2%	33.48	354	10.0%	35.32	397	9.8%	39.78	476	10.3%	48.39	527	10.4%	51.55
Health Region															
Central	614	19.1%	39.64	660	18.6%	41.36	747	18.5%	47.00	822	17.7%	53.15	858	16.9%	54.54
Eastern	853	26.5%	46.70	935	26.3%	51.75	1,121	27.8%	60.12	1,229	26.5%	67.48	1,390	27.4%	76.20
Northern	740	23.0%	28.02	848	23.9%	32.06	962	23.8%	35.50	1,084	23.4%	41.27	1,190	23.4%	45.19
Northwest	465	14.5%	34.32	558	15.7%	40.70	564	14.0%	40.43	752	16.2%	53.70	804	15.8%	57.14
Southwest	388	12.1%	37.92	418	11.8%	41.41	450	11.2%	44.10	522	11.3%	53.35	582	11.5%	57.00
Out of State	156	4.9%	46.02	136	3.8%	39.95	191	4.7%	53.43	222	4.8%	62.85	254	5.0%	69.61
Conditon															
Pre-existing hypertension with pre-eclampsia	914	28.4%	10.47	977	27.5%	11.14	1,065	26.4%	11.92	1,199	25.9%	13.74	1,070	21.1%	12.26
Severe pre-eclampsia	1,999	62.2%	22.89	2,254	63.4%	25.71	2,655	65.8%	29.71	3,148	68.0%	36.07	3,747	73.8%	42.94
HELLP syndrome	278	8.6%	3.18	303	8.5%	3.46	279	6.9%	3.12	242	5.2%	2.77	230	4.5%	2.64
Eclampsia complicating pregnancy	67	2.1%	0.77	68	1.9%	0.78	77	1.9%	0.86	74	1.6%	0.85	78	1.5%	0.89

Appendix – Data Tables

Cardiac Conditions

Cardiac Conditions															
	2020			2021			2022			2023			2024		
Total Count (Rate)	1,020 (116.79)			1,091 (124.42)			1,340 (149.95)			1,277 (146.33)			1,407 (159.46)		
Rate per 10k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	618	60.6%	137.83	651	59.7%	142.69	832	62.1%	183.38	741	58.0%	169.61	843	59.9%	195.02
Black	232	22.7%	126.76	248	22.7%	139.62	275	20.5%	156.37	277	21.7%	165.27	270	19.2%	162.32
Other Race	170	16.7%	70.28	192	17.6%	79.02	233	17.4%	88.23	259	20.3%	96.49	294	20.9%	103.61
Payer															
Commercial	511	50.1%	111.31	572	52.4%	121.06	713	53.2%	153.28	688	53.9%	153.56	763	54.2%	168.66
Medicaid	367	36.0%	119.77	378	34.6%	124.29	445	33.2%	135.37	434	34.0%	133.01	468	33.3%	142.80
Other Payer	142	13.9%	131.70	141	12.9%	140.68	182	13.6%	182.38	155	12.1%	157.57	176	12.5%	172.16
Health Region															
Central	172	16.9%	111.05	192	17.6%	120.31	222	16.6%	139.67	211	16.5%	136.44	199	14.1%	126.49
Eastern	303	29.7%	165.88	289	26.5%	159.97	359	26.8%	192.54	350	27.4%	192.16	368	26.2%	201.74
Northern	206	20.2%	78.01	225	20.6%	85.06	316	23.6%	116.62	285	22.3%	108.51	348	24.7%	132.16
Northwest	137	13.4%	101.13	170	15.6%	124.01	202	15.1%	144.80	204	16.0%	145.66	206	14.6%	146.40
Southwest	140	13.7%	136.83	159	14.6%	157.52	175	13.1%	171.48	171	13.4%	174.76	204	14.5%	199.80
Out of State	62	6.1%	182.89	56	5.1%	164.51	66	4.9%	184.62	56	4.4%	158.55	82	5.8%	224.72
Condition															
Arrhythmias	286	28.0%	32.75	307	28.1%	35.01	353	26.3%	39.50	259	20.3%	29.68	210	14.9%	24.06
Cardiac Valve Disorders	117	11.5%	13.40	131	12.0%	14.94	119	8.9%	13.32	116	9.1%	13.29	137	9.7%	15.70
Cardiomyopathies	66	6.5%	7.56	68	6.2%	7.76	82	6.1%	9.18	80	6.3%	9.17	95	6.8%	10.89
Congenital Heart Disease	163	16.0%	18.66	177	16.2%	20.19	243	18.1%	27.19	208	16.3%	23.84	246	17.5%	28.19
Coronary Artery Disease	35	3.4%	4.01	42	3.8%	4.79	46	3.4%	5.15	51	4.0%	5.84	62	4.4%	7.10
Pulmonary Hypertension	30	2.9%	3.44	32	2.9%	3.65	46	3.4%	5.15	32	2.5%	3.67	33	2.3%	3.78

Appendix – Data Tables

Sepsis

Sepsis															
Sepsis	2020			2021			2022			2023			2024		
Total Count (Rate)	91 (10.42)			115 (13.12)			98 (10.97)			117 (13.41)			120 (13.60)		
Rate per 10k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	25	27.5%	5.58	51	44.3%	11.18	31	31.6%	6.83	47	40.2%	10.76	37	30.8%	8.56
Black	27	29.7%	14.75	34	29.6%	19.14	30	30.6%	17.06	30	25.6%	17.90	32	26.7%	19.24
Other Race	39	42.9%	16.12	30	26.1%	12.35	37	37.8%	14.01	40	34.2%	14.90	51	42.5%	17.97
Payer															
Commercial	36	39.6%	7.84	50	43.5%	10.58	44	44.9%	9.46	43	36.8%	9.60	49	40.8%	10.83
Medicaid	43	47.3%	14.03	57	49.6%	18.74	41	41.8%	12.47	61	52.1%	18.70	57	47.5%	17.39
Other Payer	12	13.2%	11.13	8	7.0%	7.98	13	13.3%	13.03	13	11.1%	13.22	14	11.7%	13.69
Health Region															
Central	21	23.1%	13.56	28	24.3%	17.54	17	17.3%	10.70	15	12.8%	9.70	20	16.7%	12.71
Eastern	14	15.4%	7.66	27	23.5%	14.95	21	21.4%	11.26	29	24.8%	15.92	17	14.2%	9.32
Northern	26	28.6%	9.85	32	27.8%	12.10	34	34.7%	12.55	43	36.8%	16.37	51	42.5%	19.37
Northwest	14	15.4%	10.33	12	10.4%	8.75	15	15.3%	10.75	13	11.1%	9.28	16	13.3%	11.37
Southwest	11	12.1%	10.75	11	9.6%	10.90	8	8.2%	7.84	15	12.8%	15.33	11	9.2%	10.77

Appendix – Data Tables

Severe Maternal Morbidity

Severe Maternal Morbidity															
	2020			2021			2022			2023			2024		
Total Count (Rate)	1210 (138.55)			1386 (158.07)			1525 (170.65)			816 (93.50)			978 (110.84)		
Rate per 10k Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	541	44.7%	120.65	688	49.6%	150.80	750	49.2%	165.31	354	43.4%	81.03	405	41.4%	93.69
Black	359	29.7%	196.14	343	24.7%	193.11	385	25.2%	218.91	225	27.6%	134.25	290	29.7%	174.34
Other Race	310	25.6%	128.16	355	25.6%	146.10	390	25.6%	147.68	237	29.0%	88.30	283	28.9%	99.74
Payer															
Commercial	565	46.7%	123.07	696	50.2%	147.30	726	47.6%	156.08	402	49.3%	89.73	461	47.1%	101.91
Medicaid	503	41.6%	164.16	540	39.0%	177.56	598	39.2%	181.92	352	43.1%	107.88	392	40.1%	119.61
Other Payer	142	11.7%	131.70	150	10.8%	149.66	201	13.2%	201.42	62	7.6%	63.03	125	12.8%	122.27
Health Region															
Central	198	16.4%	127.83	268	19.3%	167.93	309	20.3%	194.40	158	19.4%	102.17	183	18.7%	116.32
Eastern	291	24.0%	159.31	307	22.2%	169.93	391	25.6%	209.71	219	26.8%	120.24	247	25.3%	135.41
Northern	327	27.0%	123.84	368	26.6%	139.12	383	25.1%	141.35	208	25.5%	79.19	279	28.5%	105.95
Northwest	164	13.6%	121.06	192	13.9%	140.05	180	11.8%	129.03	110	13.5%	78.54	112	11.5%	79.60
Southwest	166	13.7%	162.24	190	13.7%	188.23	199	13.0%	195.00	87	10.7%	88.91	95	9.7%	93.05
Out of State	64	5.3%	188.79	61	4.4%	179.20	63	4.1%	176.22	34	4.2%	96.26	62	6.3%	169.91
Maternal Complications															
Obstetric Hemorrhage	270	22.3%	633.21	294	21.2%	643.75	335	22.0%	649.10	327	40.1%	605.56	418	42.7%	640.22
Cardiac Conditions	224	18.5%	2196.08	259	18.7%	2373.97	299	19.6%	2231.34	206	25.2%	1613.16	235	24.0%	1670.22
Severe Hypertension	237	19.6%	736.94	235	17.0%	661.04	298	19.5%	738.54	300	36.8%	647.81	348	35.6%	685.31
Mental Health	226	18.7%	253.53	255	18.4%	234.33	297	19.5%	241.23	196	24.0%	144.23	227	23.2%	167.42
Substance Use	33	2.7%	402.44	23	1.7%	321.68	30	2.0%	387.60	31	3.8%	485.13	20	2.0%	310.56
Sepsis	81	6.7%	8901.10	102	7.4%	8869.57	88	5.8%	8979.59	106	13.0%	9059.83	108	11.0%	9000.00
Leading Causes															
Acute Renal Failure	138	11.4%	15.80	141	10.2%	16.08	174	11.4%	19.47	208	25.5%	23.84	248	25.4%	28.42
Disseminated Intravascular Coagulation	139	11.5%	15.92	134	9.7%	15.28	149	9.8%	16.67	148	18.1%	16.96	195	19.9%	22.35
Hysterectomy	113	9.3%	12.94	113	8.2%	12.89	130	8.5%	14.55	105	12.9%	12.03	130	13.3%	14.90
Shock	68	5.6%	7.79	63	4.5%	7.18	99	6.5%	11.08	106	13.0%	12.15	122	12.5%	13.98
Sepsis	81	6.7%	9.28	101	7.3%	11.52	87	5.7%	9.74	105	12.9%	12.03	107	10.9%	12.26
Acute Respiratory Distress Syndrome	97	8.0%	11.11	150	10.8%	17.11	117	7.7%	13.09	112	13.7%	12.83	100	10.2%	11.46
Cardiac Arrest / Ventricular Fibrillation	129	10.7%	14.77	138	10.0%	15.74	147	9.6%	16.45	77	9.4%	8.82	100	10.2%	11.46
Pulmonary Edema / Acute Heart Failure	61	5.0%	6.98	67	4.8%	7.64	79	5.2%	8.84	78	9.6%	8.94	90	9.2%	10.31
Eclampsia	67	5.5%	7.67	68	4.9%	7.76	77	5.0%	8.62	74	9.1%	8.48	78	8.0%	8.94
Ventilation	423	35.0%	48.44	553	39.9%	63.07	553	36.3%	61.88	52	6.4%	5.96	45	4.6%	5.16

Appendix – Data Tables

Infant Health – Inpatient Newborn Demographics

	2020		2021		2022		2023		2024	
Total Delivery Count	90,252		90,474		91,548		88,735		89,745	
	Count	%	Count	%	Count	%	Count	%	Count	%
Race										
White	35,901	39.8%	39,290	43.4%	37,629	41.1%	34,353	38.7%	36,240	40.4%
Black	15,907	17.6%	16,141	17.8%	15,473	16.9%	14,512	16.4%	14,360	16.0%
Other Race	38,325	42.5%	34,861	38.5%	38,321	41.9%	39,765	44.8%	39,039	43.5%
Payer										
Commercial	43,455	48.1%	44,835	49.6%	44,017	48.1%	41,655	46.9%	42,356	47.2%
Medicaid	34,314	38.0%	33,144	36.6%	34,947	38.2%	34,505	38.9%	34,495	38.4%
Other Payer	12,465	13.8%	12,465	13.8%	12,521	13.7%	12,571	14.2%	12,882	14.4%
Health Region										
Central	15,960	17.7%	16,570	18.3%	16,136	17.6%	15,732	17.7%	15,866	17.7%
Eastern	18,889	20.9%	18,677	20.6%	19,116	20.9%	18,466	20.8%	18,340	20.4%
Northern	27,484	30.5%	27,340	30.2%	27,921	30.5%	26,862	30.3%	27,101	30.2%
Northwest	13,841	15.3%	13,914	15.4%	14,054	15.4%	13,944	15.7%	13,983	15.6%
Southwest	10,528	11.7%	10,375	11.5%	10,541	11.5%	10,062	11.3%	10,628	11.8%
Out of State	3,546	3.9%	3,594	4.0%	3,780	4.1%	3,669	4.1%	3,827	4.3%
Birth Weight										
Low Birth Weight	8,991	10.0%	9,486	10.5%	9,245	10.1%	9,061	10.2%	9,565	10.7%
High Birth Weight	10,031	11.1%	10,816	12.0%	11,301	12.3%	10,889	12.3%	11,417	12.7%

Appendix – Data Tables

Infant Health - Conditions Originating in the Perinatal Period

Newborn Deliveries - Perinatal conditions															
Perinatal Conditions	2020			2021			2022			2023			2024		
Total Count (Rate)	50,762 (56.24)			52,322 (57.83)			53,640 (58.59)			52,734 (59.43)			53,482 (59.59)		
Rate per 100 Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	20,894	41.2%	58.20	23,228	44.4%	59.12	22,292	77.7%	59.24	20,578	39.0%	59.90	21,982	41.1%	60.66
Black	9,545	18.8%	60.01	10,045	19.2%	62.23	9,454	64.3%	61.10	8,738	16.6%	60.21	8,772	16.4%	61.09
Other Race	20,256	39.9%	52.85	18,930	36.2%	54.30	21,813	23.4%	56.92	23,361	44.3%	58.75	22,658	42.4%	58.04
Payer															
Commercial	23,808	46.9%	54.79	25,249	48.3%	56.32	25,508	47.6%	57.95	24,804	47.0%	59.55	25,405	47.5%	59.98
Medicaid	20,253	39.9%	59.02	20,074	38.4%	60.57	20,963	39.1%	59.99	20,620	39.1%	59.76	20,565	38.5%	59.62
Other Payer	6,692	13.2%	53.69	6,965	13.3%	55.88	7,130	13.3%	56.94	7,306	13.9%	58.12	7,505	14.0%	58.26
Health Region															
Central	9,389	18.5%	58.83	10,248	19.6%	61.85	9,687	18.1%	60.03	8,905	16.9%	56.60	9,151	17.1%	57.68
Eastern	10,595	20.9%	56.09	11,011	21.0%	58.95	10,838	20.2%	56.70	10,436	19.8%	56.51	10,514	19.7%	57.33
Northern	13,819	27.2%	50.28	14,321	27.4%	52.38	16,078	30.0%	57.58	16,341	31.0%	60.83	16,297	30.5%	60.13
Northwest	8,839	17.4%	63.86	8,716	16.7%	62.64	8,883	16.6%	63.21	8,963	17.0%	64.28	8,377	15.7%	59.91
Southwest	6,263	12.3%	59.49	6,032	11.5%	58.14	5,960	11.1%	56.54	5,896	11.2%	58.60	6,872	12.8%	64.66
Out of State	1,853	3.7%	52.26	1,990	3.8%	55.37	2,194	4.1%	58.04	2,193	4.2%	59.77	2,271	4.2%	59.34
Birth Weight															
Low birth weight	8,991	17.7%	100.00	9,486	18.1%	100.00	9,245	17.2%	100.00	9,061	17.2%	100.00	9,565	17.9%	100.00
High birth weight	10,031	19.8%	100.00	10,816	20.7%	100.00	11,301	21.1%	100.00	10,889	20.6%	100.00	11,417	21.3%	100.00

Appendix – Data Tables

Infant Health - Congenital Malformations, Deformations, and Chromosomal Abnormalities

Newborn Deliveries - Congenital conditions															
Congenital Conditions	2020			2021			2022			2023			2024		
Total Count (Rate)	12,333 (13.67)			13,399 (14.81)			13,682 (14.95)			14,664 (16.53)			16,232 (18.01)		
Rate per 100 Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race															
White	4,428	35.9%	12.33	5,311	39.6%	13.52	4,860	35.5%	12.92	4,615	31.5%	13.43	5,314	32.7%	14.66
Black	2,697	21.9%	16.95	2,970	22.2%	18.40	2,741	20.0%	17.71	2,690	18.3%	18.54	2,684	16.5%	18.69
Other Race	5,198	42.1%	13.56	5,082	37.9%	14.58	6,064	44.3%	15.82	7,345	50.1%	18.47	8,221	50.6%	21.06
Payer															
Commercial	5,723	46.4%	13.17	6,395	47.7%	14.26	6,348	46.4%	14.42	6,964	47.5%	16.72	7,964	49.1%	18.80
Medicaid	5,073	41.1%	14.78	5,268	39.3%	15.89	5,597	40.9%	16.02	5,830	39.8%	16.90	6,322	38.9%	18.33
Other Payer	1,536	12.5%	12.32	1,727	12.9%	13.85	1,724	12.6%	13.77	1,870	12.8%	14.88	1,943	12.0%	15.08
Health Region															
Central	2,291	18.6%	14.35	2,765	20.6%	16.69	2,661	19.4%	16.49	2,644	18.0%	16.81	3,019	18.6%	19.03
Eastern	2,465	20.0%	13.05	2,611	19.5%	13.98	2,570	18.8%	13.44	2,498	17.0%	13.53	2,346	14.5%	12.79
Northern	3,705	30.0%	13.48	3,983	29.7%	14.57	4,516	33.0%	16.17	5,274	36.0%	19.63	6,281	38.7%	23.18
Northwest	2,032	16.5%	14.68	2,102	15.7%	15.11	2,157	15.8%	15.35	2,214	15.1%	15.88	2,205	13.6%	15.77
Southwest	1,357	11.0%	12.89	1,418	10.6%	13.67	1,193	8.7%	11.32	1,358	9.3%	13.50	1,643	10.1%	15.46
Out of State	482	3.9%	13.59	519	3.9%	14.44	585	4.3%	15.48	676	4.6%	18.42	738	4.5%	19.28
Birth Weight															
Low birth weight	1,965	15.9%	21.86	2,221	16.6%	23.41	2,210	16.2%	23.90	2,269	15.5%	25.04	2,547	15.7%	26.63
High birth weight	1,398	11.3%	13.94	1,655	12.4%	15.30	1,721	12.6%	15.23	1,728	11.8%	15.87	2,043	12.6%	17.89