Virginia Maternal Health Task Force Environmental Scan

April 2024

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Executive Summary

This report has been prepared for the Virginia Maternal Health Task Force (the task force) by the Virginia Neonatal Perinatal Collaborative (VNPC). Data in this report were collected and analyzed through collaboration of VNPC, Virginia Department of Health (VDH): Office of Family Health, Virginia Hospital & Healthcare Association (VHHA), and the Virginia Department of Medical Assistance Services (DMAS). The task force is a collaborative of maternal and infant health experts from across Virginia, and they have convened according to the guidelines of the Maternal Health Innovation (MHI) grant. The MHI grant has been awarded through the Maternal Health Learning and Innovation Center (MHLIC) and the Health Resources and Services Administration (HRSA).

The purpose of the environmental scan is to provide the task force with the most up-to-date data related to maternal and infant health trends in Virginia to support the task force mission to create a strategic plan for Virginia. See methods for further explanation of procurement and analysis of data. Data are meant to highlight trends spanning all aspects of maternal and infant health from pre-pregnancy care to postpartum check-ups. This scan has been completed by evaluating quantitative and qualitative data from several sources highlighted in the methods section.

Work of the MHI grant and the task force is intended to aim at reducing maternal mortality, and health disparities in Virginia through the support and advising of Urban Baby Beginnings (UBB) Maternal Health HUBs and to renew Virginia Fetal Infant Mortality Review (FIMR).

Methods

Primary Data Sources

Virginia PRAMS[24]: The Virginia Pregnancy Risk Assessment Monitoring System is a statewide survey administered by the Virginia Department of Health in partnership with the CDC to randomly assigned postpartum individuals within 2-6 months of delivery of a live birth. The survey collects comprehensive data regarding pre-pregnancy, prenatal, perinatal, and postpartum maternal experiences including but not limited to social, environmental, and medical factors that may affect the health of pregnant or parenting person and infant. Data included from the Virginia PRAMS in this report were collected from 2018-2021 and aggregated counts are presented. Results have been stratified by race/ethnicity, insurance, Virginia health region, and urban/ rural classification.

VDH Vital Records[16]: The Virginia Department of Health also provided maternal and infant data pertaining to natality (birth records) and mortality (death records). Vital Records data provided in this report are included to show the most recent 4 years of data available from 2019-2022 and are disaggregated by year, race/ethnicity, Virginia health region, and urban/ rural classification. The data are verified by the National Vital Statistics System and collected in collaboration with the Virginia Department of Health and other state health departments to capture all births and deaths of Virginia residents despite location of birth or death.

CDC Wonder[8]: Some vital statistics data were also extracted from CDC Wonder. This site contains publicly accessible data that can be stratified and extracted to support health research. Data come from the Natality & Mortality Records from 2019-2022, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.

Maternal Health Dashboard[20]: 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 birth events. 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 Act[21]. See the infographic on the next page for how the data are submitted and processed before they reach the Maternal Health Dashboard.

Methods

Data are updated through the end of 2023 and are represented in this report from 2020-2023. 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 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black. The records are filtered for different health conditions by using ICD-10 codes for specified diseases and health outcomes.

Infographic of how data get from hospitals to Maternal Health Dashboard[20]
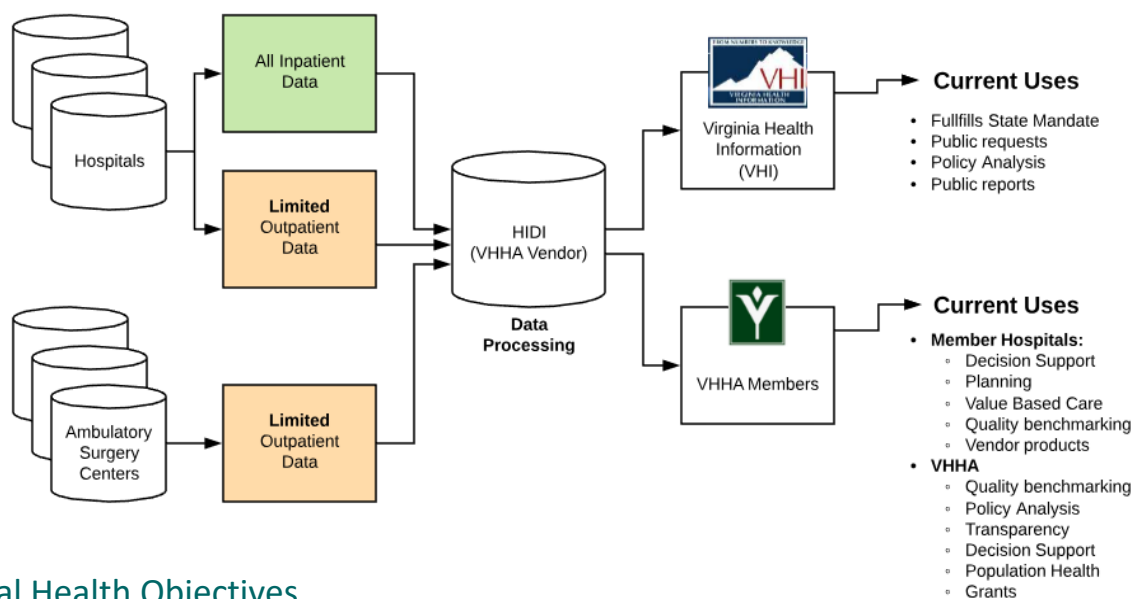
Maternal Health Objectives

Organizations in the maternal and infant health space have already released maternal and infant health objectives that can be compared to currently updated metrics. Some of these objectives have been included from the US Healthy People 2030 goals[13], and the Virginia Title V Maternal and Child Health State Action Plan[10].

US Healthy People 2030[13]: The US Healthy People 2030 objectives have been developed by subject matter experts regarding several public health related topics. New objectives are released every 10 years, and thus, the current objectives are targeted to be met by 2030 before new objectives will be released for 2040. The targets are based on national baseline measures, current understandings of healthcare capacity, and work being done in various areas of public health. These objectives serve as a valuable tool to measure the success of Virginia public health initiatives compared with the country. Included objectives are placed appropriately throughout the report and highlight measures that were captured with similar methods.

Title V State Action Plan[10]: The Health Resources and Services Administration (HRSA) oversees the dispersion, and use of the Title V Maternal and Child Health (MCH) Block Grant that contributes to the funding of State health departments. As part of the requirements of this block grant, States are required to develop a five-year state action plan to address priority areas of improvement for the state with updates submitted annually. In this report, relevant Title V Objectives have been included to provide an up-to-date snapshot of the progress of meeting these objectives. State objectives are paired with strategies, national and state performance measures, evidence-based measures, and national and state outcome measures. Furthermore, the current objectives are for the years of 2020-2025 with a new set of objectives to be released for 2025-2030. The Virginia Department of Health is currently working on evaluating the needs of the commonwealth to identify the next set of objectives, and the Maternal Health Task Force will need to consider these objectives and areas for improvement in the development of the strategic plan.

Helpful Definitions

Adequacy of Prenatal Care[11]: Measure of prenatal care considering initiation of care and frequency of visits. (Kotelchuck Index)

Birthing Hospital: Hospitals that maintain the proper resources to support labor and delivery as well as care of a newborn infant. As of April 1st, 2024, 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., Crude Birth Rate: Total number of live births each year divided by the population in that year times 1,000. Shown as the number of live births per 1,000 people.

Infant Mortality[7]: Infant mortality is the death of an infant before their first birthday. The infant mortality rate is the number of infant deaths for every 1,000 live births.

LOCATe[5]: Levels Of Care Assessment Tool is a program from the Centers for Disease Control and Prevention that is intended to support risk-appropriate care where each pregnancy or parenting individual reasonably has access to the facilities that can support them.

Low Birthweight[7]: Birthweight less than 2500 grams or about 5.5 pounds. Often a result of preterm births or growth defects.

Maternal Mortality[27]: The annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy. The maternal mortality rate is the number of maternal deaths for every 100,000 live births.

Neonatal Abstinence Syndrome[13]: Conditions resulting from infant exposure to substances while in the womb. Cases are most commonly a result of maternal opioid use.

NTSV Cesarean[13]: Nulliparous Term Singleton Vertex. Cesarean births for low-risk women with no prior births. Shown as rate with numerator of NTSV-C births and a denominator of all NTSV births.

Pregnancy-Associated Death[22]: A death that occurs during pregnancy or up to 1 year postpartum regardless of effect by pregnancy (including accidental or incidental causes).

Preterm Births[7]: When a baby is born before 37 weeks of pregnancy.

Severe Maternal Morbidity[6]: 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.

Urbanization[26]: Defined by Rural Urban Continuum Codes 2013. Urban in metro areas, and rural in nonmetro areas.

Virginia Health Regions
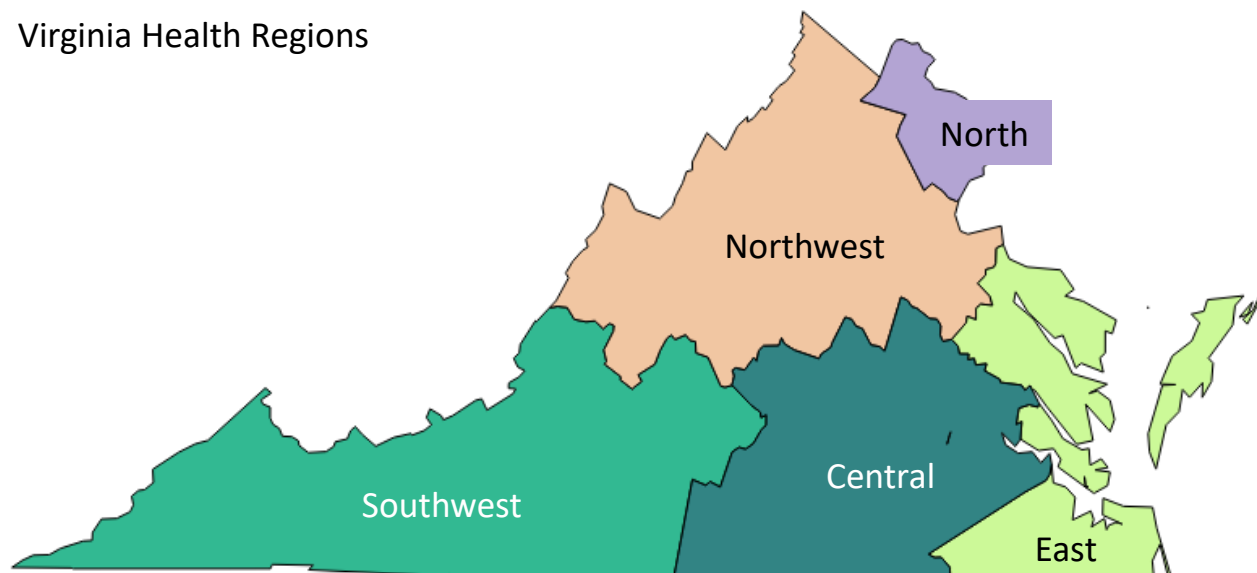
General Data

Total Number of Births[16]

Year	Births
2019	97,440
2020	94,694
2021	95,647
2022	95,615

Births VDH[16]

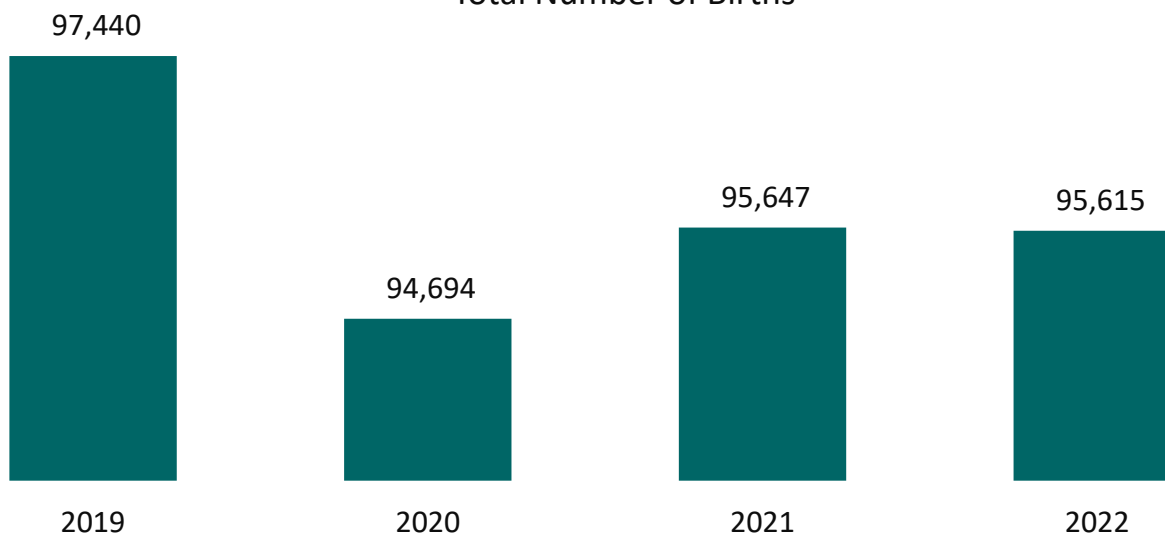|	2019		2020		2021		2022	
Total Birth Count	97,440		94,694		95,647		95,615	
	Count	%	Count	%	Count	%	Count	%
Payer	2019		2020		2021		2022	
Commercial	54,795	56.2%	51,557	54.4%	47,053	49.2%	45,990	48.1%
Medicaid	29,737	30.5%	30,068	31.8%	26,981	28.2%	28,595	29.9%
Self Pay	5,431	5.6%	4,924	5.2%	4,100	4.3%	2,775	2.9%
Other	7,269	7.5%	7,868	8.3%	7,137	7.5%	7,221	7.6%
Health Region **	2019		2020		2021		2022	
Northwest	14,548	14.9%	14,534	15.3%	14,842	15.5%	14,959	15.6%
Northern	31,354	32.2%	29,839	31.5%	29,815	31.2%	29,794	31.2%
Eastern	22,609	23.2%	21,866	23.1%	22,286	23.3%	21,679	22.7%
Central	16,208	16.6%	16,083	17.0%	16,611	17.4%	16,546	17.3%
Southwest	12,721	13.1%	12,371	13.1%	12,093	12.6%	12,626	13.2%
Urbanization	2019		2020		2021		2022	
Urban	87,480	89.8%	84,996	89.8%	86,060	90.0%	85,913	89.9%
Rural	9,960	10.2%	9,697	10.2%	9,587	10.0%	9,691	10.1%

*Demographics based on Maternal characteristics
**Regional colors follow map on page 5

CDC Wonder Births[8]

	2019		2020		2021		2022	
Total Birth Count	97,429		94,749		95,825		95,630	
	Count	%	Count	%	Count	%	Count	%
Race/ Ethnicity	2019		2020		2021		2022	
Non-Hispanic White	52,997	54.4%	51,120	54.0%	52,069	54.3%	51,085	53.4%
Non-Hispanic Black	20,339	20.9%	19,622	20.7%	19,170	20.0%	18,543	19.4%
Hispanic/Latino	14,442	14.8%	14,806	15.6%	15,044	15.7%	15,943	16.7%
Other	9,651	9.9%	9,201	9.7%	9,542	10.0%	10,059	10.5%

*Demographics based on Maternal characteristics

General Data

Maternal Health Dashboard Hospital Deliveries[20]								
	2020		**2021**		**2022**		**2023**	
Total Delivery Count	87330		87684		89366		87266	
	Count	%	Count	%	Count	%	Count	%
Race								
White	44839	51.34%	45623	52.03%	45370	50.77%	43596	49.96%
Black	18303	20.96%	17762	20.26%	17587	19.68%	16766	19.21%
Other Race	24188	27.70%	24299	27.71%	26409	29.55%	26904	30.83%
Payer								
Commercial	45924	52.59%	47278	53.92%	46550	52.09%	44802	51.34%
Medicaid	30648	35.09%	30412	34.68%	32872	36.78%	32651	37.42%
Other Payer	10758	12.32%	9994	11.40%	9944	11.13%	9813	11.24%
Health Region**								
Northwest	13547	15.51%	13709	15.63%	13950	15.61%	14005	16.05%
Northern	26406	30.24%	26452	30.17%	27906	31.23%	26266	30.10%
Eastern	18266	20.92%	18066	20.60%	18645	20.86%	18212	20.87%
Central	15489	17.74%	15959	18.20%	15895	17.79%	15476	17.73%
Southwest	10232	11.72%	10094	11.51%	10205	11.42%	9785	11.21%

*Demographics based on Maternal characteristics
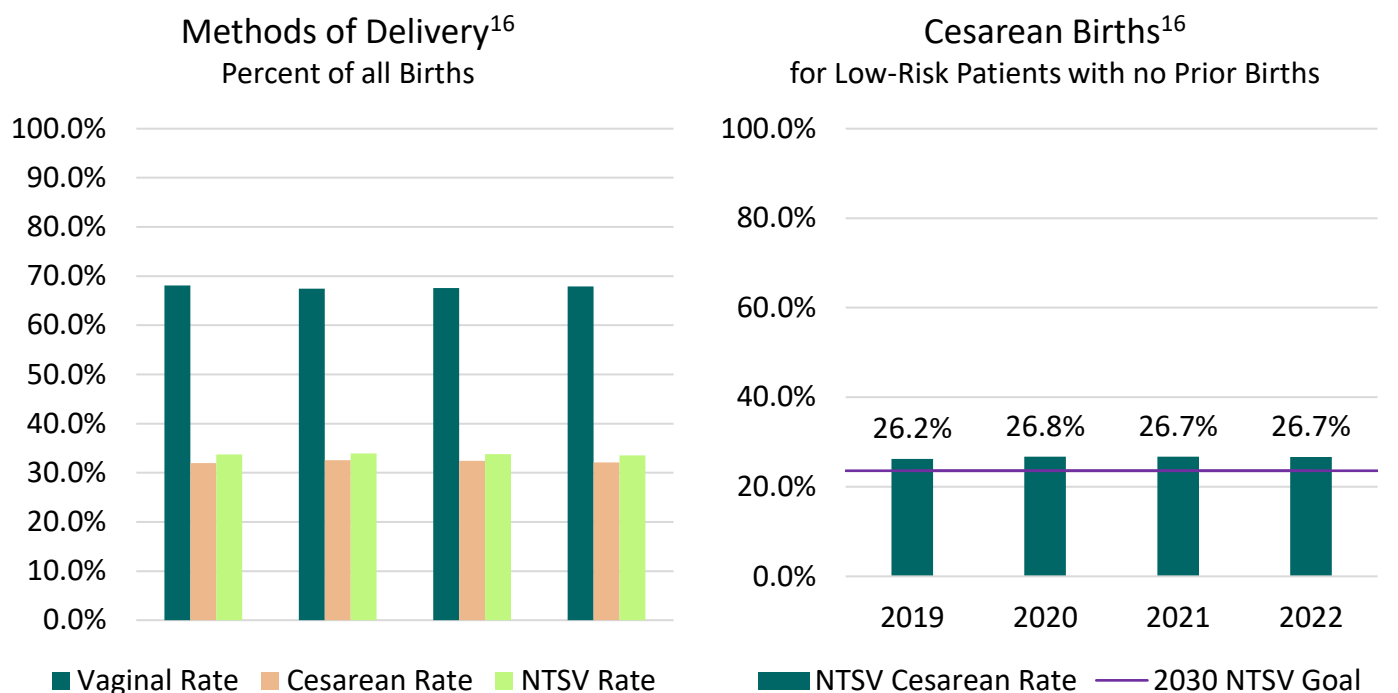**Regional colors follow map on page 5

In an effort of transparency, the total population demographic statistics have been displayed to show the similarities and differences between data sources used for this report. VDH Vital Records and CDC Wonder both source data from birth certificates. CDC Wonder has a cut off date for updates from state health departments, and VDH may continue to update data to accommodate uncovering births for Virginia Residents in other states among other things. Due to collection differences and updates, CDC Wonder and VDH data have slight variations despite measuring the same population of births to Virginians based on maternal residence at the time of birth. The Maternal Health Dashboard is also slightly different because its data are representative of all inpatient hospital deliveries despite location of patient origin. This may include out-of-state pregnant people that delivered in Virginia. Additionally, the table below highlights data from the Department of Medical Assistance Services on births that were paid by Virginia Medicaid. Differences in identification of births and payer source cause these data to have different counts from other sources. See more info about DMAS data reports in the Appendix.

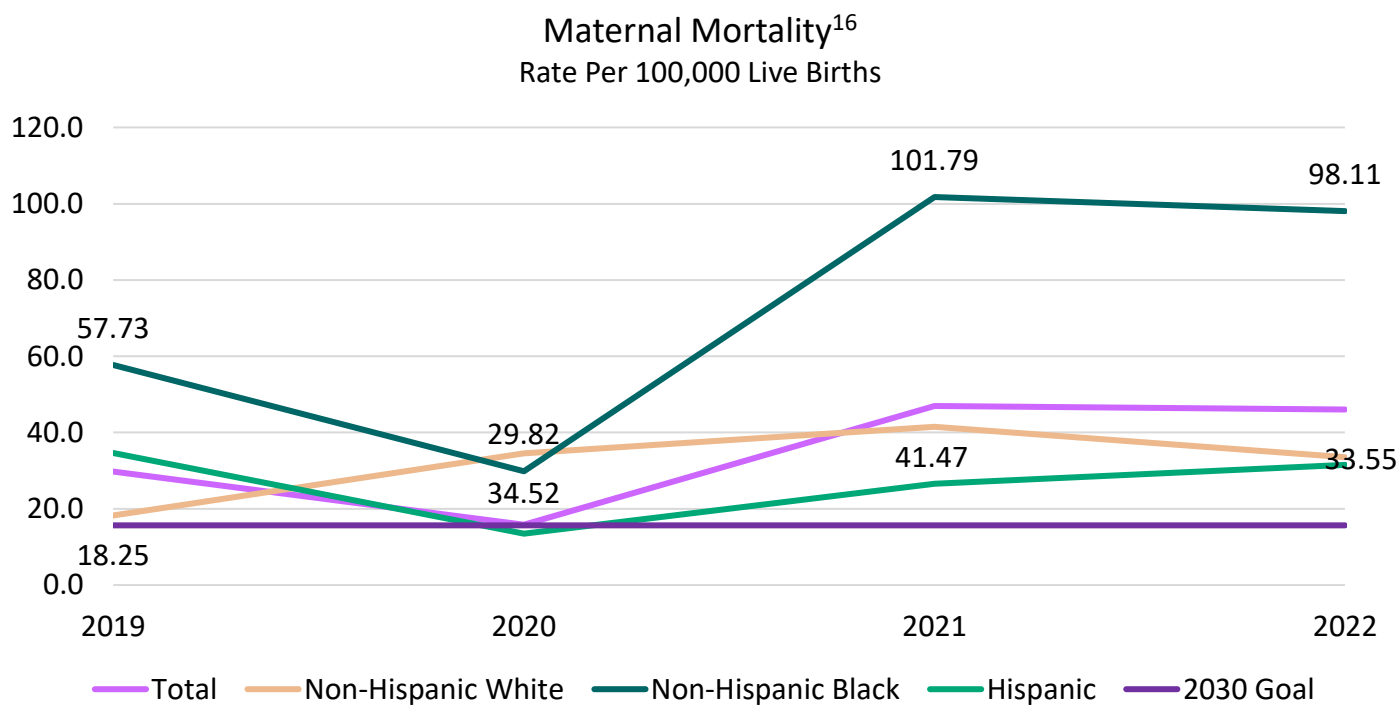| Overall Births Paid By Virginia Medicaid[23]	CY2019		CY 2020		CY 2021		CY 2022	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Overall Births*								
Total Births	38,317	100.0%	37,316	100.0%	36,480	100.0%	37,269	100.0%
Multiple Gestation Births	1,350	3.5%	1,255	3.4%	1,184	3.2%	1,153	3.1%
Singleton Births	36,967	96.5%	36,061	96.6%	35,296	96.8%	36,116	96.9%
Medicaid Births**								
Total Births	33,679	100.0%	33,401	100.0%	34,150	100.0%	37,046	100.0%
Multiple Gestation Births	1,235	3.7%	1,171	3.5%	1,118	3.3%	1,147	3.1%
Singleton Births	32,444	96.3%	32,230	96.5%	33,032	96.7%	35,899	96.9%

* Overall Births includes all births paid by Virginia Medicaid.
** Medicaid Births exclude members enrolled in limited benefit programs (e.g., Plan First) and members who are only eligible for emergency only benefits.

20: VHHA, Maternal Health Dashboard (2024), Accessed April 2024

General Data

Methods of Delivery[16]
Percent of all Births

- Vaginal Rate
- Cesarean Rate
- NTSV Rate

Cesarean Births[16]
for Low-Risk Patients with no Prior Births

2019	2020	2021	2022
26.2%	26.8%	26.7%	26.7%

- NTSV Cesarean Rate
- 2030 NTSV Goal

US Healthy People 2030 – MICH 06: **Reduce cesarean births among low-risk women with no prior births (NTSV Cesarean) to 23.6%**

Maternal Mortality[16]
Rate Per 100,000 Live Births

57.73

101.79

98.11

29.82

34.52

41.47

33.55

18.25

- Total
- Non-Hispanic White
- Non-Hispanic Black
- Hispanic
- 2030 Goal

State Title V Objective: **By 2025, decrease the disparity in Black-White maternal mortality disparity ratio from 2.1 (2017) to 1.23 (2025)**

Black-White maternal mortality disparity ratio in 2022: **2.92**

General Data

Maternal Mortality[16]
Rate Per 100,000 Live Births
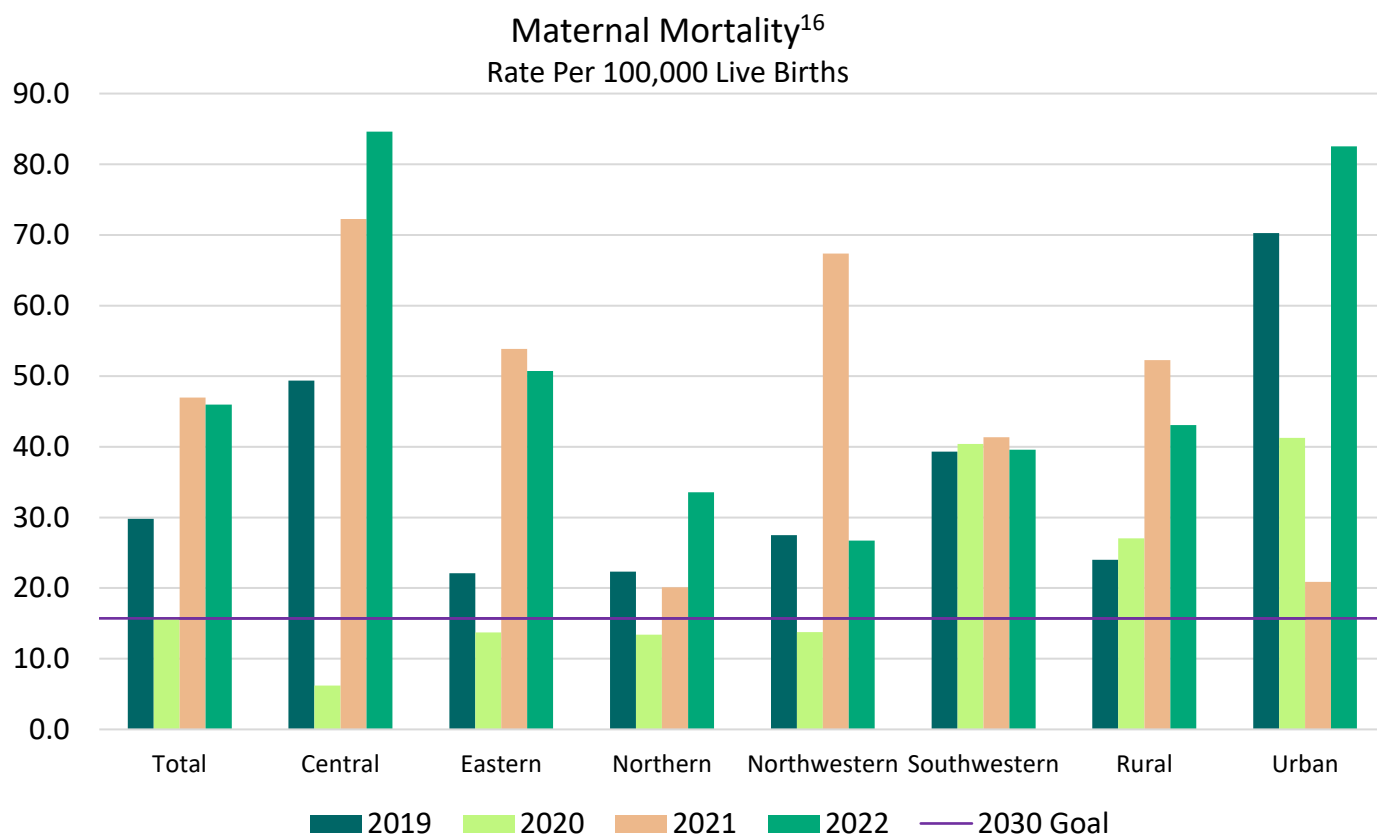
US Healthy People 2030 – MICH 04: **Reduce Maternal Mortality to 15.7 deaths per 100,000 live births**

Severe Maternal Morbidity[20]

	2020			2021			2022			2023		
Total Count (Rate)	563 (64.47)			620 (70.71)			664 (74.30)			701 (80.33)		
Rate per 10,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	218	39%	48.62	272	43.9%	59.62	283	42.6%	62.38	294	41.9%	67.44
Black	199	35%	108.73	200	32.3%	112.60	217	32.7%	123.39	202	28.8%	120.48
Other Race*	146	26%	60.36	148	23.9%	60.91	164	24.7%	62.10	205	29.2%	76.20
Payer												
Commercial	246	44%	53.57	301	48.5%	63.67	312	47.0%	67.02	334	47.6%	74.55
Medicaid	249	44%	81.25	254	41.0%	83.52	268	40.4%	81.53	312	44.5%	95.56
Other Payer	68	12%	63.21	65	10.5%	65.04	84	12.7%	84.47	55	7.8%	56.05
Health Region**												
Northwest	68	12%	50.20	93	15.0%	67.84	81	12.2%	58.06	96	13.7%	68.55
Northern	142	25%	53.78	143	23.1%	54.06	172	25.9%	63.48	170	24.3%	64.72
Eastern	138	25%	75.55	158	25.5%	87.46	178	26.8%	95.47	197	28.1%	108.17
Central	124	22%	80.06	125	20.2%	78.33	126	19.0%	79.27	133	19.0%	85.94
Southwest	60	11%	58.64	74	11.9%	73.31	75	11.3%	73.49	77	11.0%	78.69

*The breakdown of the other category is shown as 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black.

**Regional colors follow map on page 5

US Healthy People 2030 – MICH 05: **Reduce severe maternal complications identified during delivery hospitalizations to 64.4 per 10,000 delivery hospitalizations** (excluding blood transfusions)

Maternal Health – Prenatal/Pre-Pregnancy

PRAMS Q6: In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health worker?

Yes, Pre-Pregnancy Healthcare Visit[24] 2018-2021		64.20%
Race/Ethnicity	Non-Hispanic Black	54.1%
	Non-Hispanic White	76.0%
	Non-Hispanic Another Race	61.6%
	Hispanic	37.5%
Insurance Status	Private Insurance	77.0%
	Medicaid	48.8%
	Another Type of Insurance	73.5%
	Uninsured	30.3%
Region*	Central	61.5%
	Eastern	65.9%
	Northern	62.6%
	Northwestern	69.3%
	Southwestern	63.2%
Urbanization	Urban	65.4%
	Rural	57.2%

*Given the weighting structure of PRAMS, regional estimates should be interpreted with caution. **Regional colors follow map on page 5
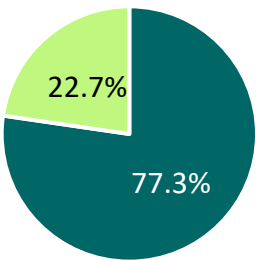
Timeliness of First Prenatal Visit[24] 2018-2021
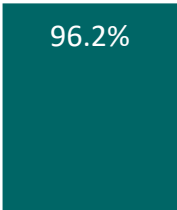
96.2% — Before 3 Months
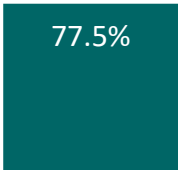
77.5% — Before 2 Months

Provider Asked During Prenatal Care Visit: Felt Down or Depressed[24]

22.7% / 77.3%

Had a Prenatal Dental Cleaning[24]

52.2% / 47.8%
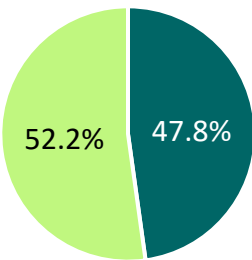
Understand the Importance of Prenatal Dental Care[24]

12.7% / 87.3%
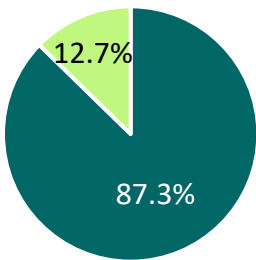
■ Yes ■ No

State Title V Objective: **By 2025, increase the percent of women who had a dental visit during pregnancy from 49.9% (PRAMS 2018) to 52.4%**
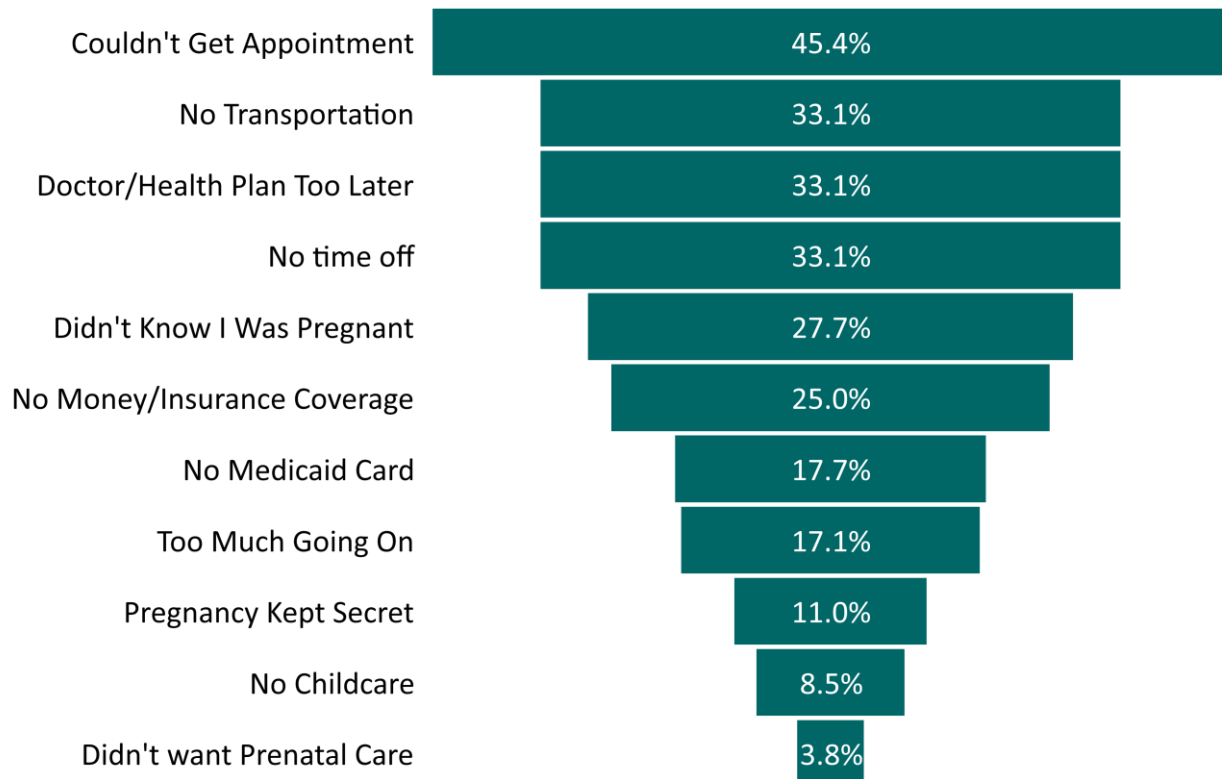
Final: 4/30/2024

Maternal Health – Prenatal/Pre-Pregnancy

PRAMS Q18: Did you get prenatal care as early in your pregnancy as you wanted?

Yes, Prenatal Care as Early as Wanted[24] 2018-2021		85.7%
Race/Ethnicity	Non-Hispanic Black	83.3%
	Non-Hispanic White	86.6%
	Non-Hispanic Another Race	85.6%
	Hispanic	85.0%
Insurance Status	Private Insurance	89.3%
	Medicaid	85.7%
	Another Type of Insurance	78.3%
	Uninsured	76.4%
Region	Central	86.1%
	Eastern	80.4%
	Northern	88.1%
	Northwestern	87.4%
	Southwestern	85.8%
Urbanization	Urban	86.1%
	Rural	81.0%

*Given the weighting structure of PRAMS, regional estimates should be interpreted with caution. **Regional colors follow map on page 5

PRAMS Q19: Did any of these things keep you from getting prenatal care when you wanted it?

Barriers to Prenatal Care[24] 2018-2021

Barrier	Percent
Couldn't Get Appointment	45.4%
No Transportation	33.1%
Doctor/Health Plan Too Later	33.1%
No time off	33.1%
Didn't Know I Was Pregnant	27.7%
No Money/Insurance Coverage	25.0%
No Medicaid Card	17.7%
Too Much Going On	17.1%
Pregnancy Kept Secret	11.0%
No Childcare	8.5%
Didn't want Prenatal Care	3.8%

Maternal Health – Prenatal/Prepregnancy

Early & Adequate Prenatal Care[16] [11] in 2022

Category	% Adequate	% Early
Other Type		87.0%
Self Pay		57.8%
Private		88.8%
Medicaid		72.4%
Rural		67.1%
Urban		80.0%
Southwestern		70.9%
Northwestern		77.3%
Northern		76.2%
Eastern		81.9%
Central		86.2%
Total		78.7%

Legend: ■ % Adequate ■ % Early
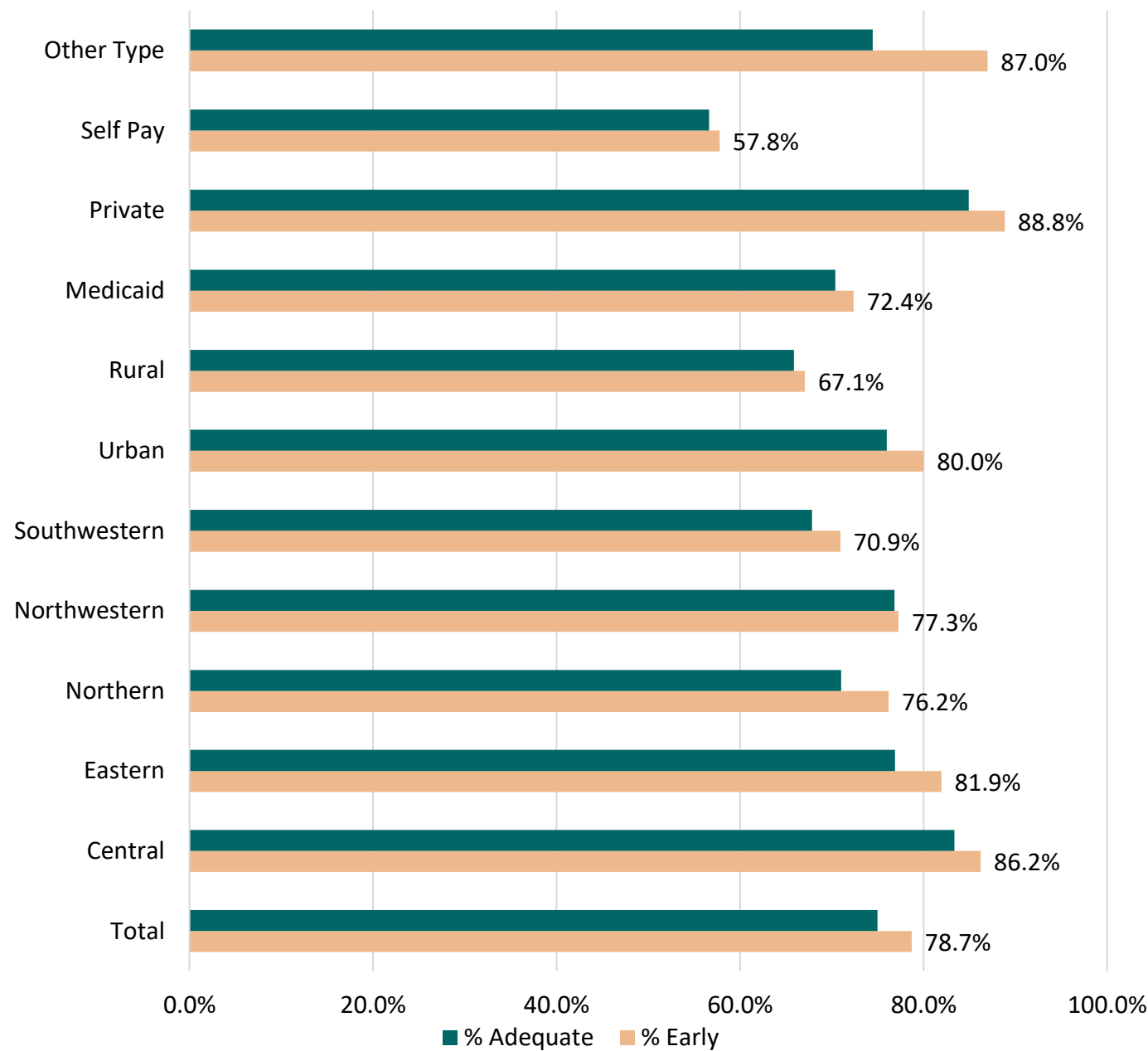
US Healthy People 2030 – MICH 08: **Increase the proportion of pregnant women who receive early and adequate prenatal care to 80.5%**

The American College of Obstetrics and Gynecology recommends that pregnant individuals have an initial prenatal care visit in the first trimester (before 3 months), then visits once a month for the first 28 weeks, every 2 weeks until 36 weeks, and weekly until delivery.[3] Its important to note that these are rough estimates, and not all pregnant individuals will have the same care guidelines. In 2018-2021 approximately 96% of Virginia pregnant people were able to get to an appointment in the first trimester of their pregnancy with 85% being satisfied with the timeliness of their care according to the PRAMS data. Additionally, vital records data show that Virginia is still working towards meeting the healthy people 2030 goal for early and adequate prenatal care.

Maternal Health – Perinatal

Substance Abuse, Use, and Dependence[20]

Opioids	2020			2021			2022			2023		
Total Count (Rate)	600 (68.70)			467 (53.26)			525 (58.75)			440 (50.42)		
Rate per 10,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	494	82.3%	110.17	380	81.4%	83.29	415	79.0%	91.47	320	72.7%	73.40
Black	71	11.8%	38.79	61	13.1%	34.34	76	14.5%	43.21	75	17.0%	44.73
Other Race*	35	5.8%	14.47	26	5.6%	10.70	34	6.5%	12.87	45	10.2%	16.73
Payer												
Commercial	68	11.3%	14.81	73	15.6%	15.44	59	11.2%	12.67	44	10.0%	9.82
Medicaid	496	82.7%	161.84	372	79.7%	122.32	435	82.9%	132.33	369	83.9%	113.01
Other Payer	36	6.0%	33.46	22	4.7%	22.01	31	5.9%	31.17	27	6.1%	27.51
Health Region**												
Northwest	120	20.0%	88.58	116	24.8%	84.62	138	26.3%	98.92	98	22.3%	69.98
Northern	31	5.2%	11.74	33	7.1%	12.48	39	7.4%	14.39	35	8.0%	13.33
Eastern	121	20.2%	66.24	76	16.3%	42.07	95	18.1%	50.95	79	18.0%	43.38
Central	97	16.2%	62.63	88	18.8%	55.14	93	17.7%	58.51	78	17.7%	50.40
Southwest	206	34.3%	201.33	141	30.2%	139.69	139	26.5%	136.21	137	31.1%	140.01
Alcohol	2020			2021			2022			2023		
Total Count (Rate)	116 (13.28)			99 (11.29)			95 (10.63)			100 (11.46)		
Rate per 10,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	71	61.2%	15.83	71	71.7%	15.56	62	65.3%	13.67	57	57.0%	13.07
Black	32	27.6%	17.48	21	21.2%	11.82	24	25.3%	13.65	32	32.0%	19.09
Other*	13	11.2%	5.37	7	7.1%	2.88	9	9.5%	3.41	11	11.0%	4.09
Payer												
Commercial	36	31.0%	7.84	28	28.3%	5.92	26	27.4%	5.59	27	27.0%	6.03
Medicaid	70	60.3%	22.84	65	65.7%	21.37	61	64.2%	18.56	59	59.0%	18.07
Other	10	8.6%	9.30	6	6.1%	6.00	8	8.4%	8.05	14	14.0%	14.27
Health Region**												
Northwest	19	16.4%	14.03	19	19.2%	13.86	19	20.0%	13.62	17	17.0%	12.14
Northern	24	20.7%	9.09	18	18.2%	6.80	19	20.0%	7.01	6	6.0%	2.28
Eastern	40	34.5%	21.90	27	27.3%	14.95	26	27.4%	13.94	33	33.0%	18.12
Central	10	8.6%	6.46	15	15.2%	9.40	16	16.8%	10.07	13	13.0%	8.40
Southwest	23	19.8%	22.48	18	18.2%	17.83	17	17.9%	16.66	29	29.0%	29.64
Cannabis	2020			2021			2022			2023		
Total Count (Rate)	944 (10.81)			1088 (12.41)			1137 (12.72)			1042 (11.94)		
Rate per 1,000 Hospital Deliveries	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%	12.94
Black	415	44.0%	22.67	451	41.5%	25.39	436	38.3%	24.79	376	36.1%	22.43
Other*	85	9.0%	3.51	75	6.9%	3.09	93	8.2%	3.52	102	9.8%	3.79
Payer												
Commercial	136	14.4%	2.96	160	14.7%	3.38	142	12.5%	3.05	137	13.1%	3.06
Medicaid	739	78.3%	24.11	865	79.5%	28.44	921	81.0%	28.02	835	80.1%	25.57
Other	69	7.3%	6.41	63	5.8%	6.30	74	6.5%	7.44	70	6.7%	7.13
Health Region**												
Northwest	161	17.1%	11.88	202	18.6%	14.73	207	18.2%	14.84	175	16.8%	12.50
Northern	64	6.8%	2.42	70	6.4%	2.65	60	5.3%	2.21	66	6.3%	2.51
Eastern	322	34.1%	17.63	360	33.1%	19.93	301	26.5%	16.14	270	25.9%	14.83
Central	131	13.9%	8.46	143	13.1%	8.96	160	14.1%	10.07	112	10.7%	7.24
Southwest	240	25.4%	23.46	282	25.9%	27.94	377	33.2%	36.94	379	36.4%	38.73

Substance use identified by ICD-10 codes related to substance abuse, use, and dependence in delivery hospitalization data.
*The breakdown of the other category is shown as 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black. **Regional colors follow map on page 5

20: VHHA, Maternal Health Dashboard (2024), Accessed April 2024

Maternal Health – Perinatal

Analysis of Substance Use

Opioid abuse, use, and dependence had highest rates in white, Medicaid, and southwest hospital deliveries. Alcohol abuse, use, and dependence had highest rates in black/white, Medicaid, and eastern/southwest hospital deliveries. Rates of opioid and alcohol use during pregnancy have decreased from 2020 to 2023. Cannabis abuse, use, and dependence had highest rates in black, Medicaid, and eastern/southwest hospital deliveries with rates increasing from 2020 to 2023. Measures were captured at time of delivery.

Perinatal Mental Health[20][1]											
Depression Disorders	2020			2021			2022			2023		
Total Count (Rate)	8778 (100.52)			10766 (122.78)			12195 (136.46)			13461 (154.25)		
Rate per 1,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	6203	71%	138.34	7703	71.5%	168.84	8544	70.1%	188.32	9479	70.4%	217.43
Black	1633	19%	89.22	1863	17.3%	104.89	2043	16.8%	116.17	2157	16.0%	128.65
Other*	942	11%	38.94	1200	11.1%	49.38	1608	13.2%	60.89	1825	13.6%	67.83
Payer												
Commercial	4103	47%	89.34	5533	51.4%	117.03	6365	52.2%	136.73	7101	52.8%	158.50
Medicaid	3602	41%	117.53	4046	37.6%	133.04	4509	37.0%	137.17	4831	35.9%	147.96
Other	1073	12%	99.74	1187	11.0%	118.77	1321	10.8%	132.84	1529	11.4%	155.81
Health Region**												
Northwest	1635	19%	120.69	2033	18.9%	148.30	2288	18.8%	164.01	2576	19.1%	183.93
Northern	1122	13%	42.49	1574	14.6%	59.50	2140	17.5%	78.98	2475	18.4%	94.23
Eastern	2644	30%	144.75	3124	29.0%	172.92	3224	26.4%	172.91	3457	25.7%	189.82
Central	1396	16%	90.13	1780	16.5%	111.54	1878	15.4%	118.15	2052	15.2%	132.59
Southwest	1663	19%	162.53	1795	16.7%	177.83	2143	17.6%	210.00	2293	17.0%	234.34
Anxiety Disorders	2020			2021			2022			2023		
Total Count (Rate)	5554 (62.34)			7209 (82.22)			8252 (92.34)			9548 (109.41)		
Rate per 1,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	4172	75.1%	93.04	5405	75.0%	118.47	6072	73.6%	133.83	7068	74.0%	162.12
Black	811	14.6%	44.31	1052	14.6%	59.23	1145	13.9%	65.10	1264	13.2%	75.39
Other Race*	571	10.3%	23.61	752	10.4%	30.95	1035	12.5%	39.19	1216	12.7%	45.20
Payer												
Commercial	2851	51.3%	62.08	4005	55.6%	84.71	4661	56.5%	100.13	5418	56.7%	120.93
Medicaid	2035	36.6%	66.40	2396	33.2%	78.78	2698	32.7%	82.08	3030	31.7%	92.80
Other Payer	668	12.0%	62.09	808	11.2%	80.85	893	10.8%	89.80	1100	11.5%	112.10
Health Region**												
Northwest	1001	18.0%	73.89	1368	19.0%	99.79	1559	18.9%	111.76	1848	19.4%	131.95
Northern	815	14.7%	30.86	1158	16.1%	43.78	1534	18.6%	56.61	1833	19.2%	69.79
Eastern	1687	30.4%	92.36	2139	29.7%	118.40	2149	26.0%	115.26	2421	25.4%	132.93
Central	793	14.3%	51.20	1073	14.9%	67.23	1158	14.0%	72.85	1367	14.3%	88.33
Southwest	1030	18.5%	100.66	1152	16.0%	114.13	1477	17.9%	144.73	1633	17.1%	166.89

*The breakdown of the other category is shown as 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black. **Regional colors follow map on page 5

Analysis of Mental Health

Depression was identified in the Maternal Health Dashboard using ICD-10 codes specified by the Alliance for Innovation in Maternal care for perinatal depression[1]. Depression had highest rates in white, all payers, and eastern/ southwest, and shows increasing incidence from 2020 to 2023. In white deliveries, depression rose about 57% from 138.34 cases per 1,000 deliveries in 2020 to 217.43 cases per 1,000 deliveries in 2023. Anxiety was measured in the Maternal Health Dashboard using ICD-10 codes specified by AIM for perinatal anxiety[1]. Anxiety had highest rates in white, all payers, and southwest, and shows increasing incidence from 2020 to 2023. Measures were captured at the time of delivery. In white deliveries, anxiety rose roughly 74% from 93.04 cases per 1,000 deliveries in 2020, and 162.12 deliveries per 1,000 in 2023.

Final: 4/30/2024

20: VHHA, Maternal Health Dashboard (2024), Accessed April 2024

Maternal Health – Perinatal

Maternal Health Outcome Measures[20][1]

Severe Hypertension	2020			2021			2022			2023		
Total Count (Rate)	3216 (36.83)			3555 (40.54)			4035 (45.15)			4631 (53.07)		
Rate per 1,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	1399	43.5%	31.20	1602	45.1%	35.11	1770	43.9%	39.01	1999	43.2%	45.85
Black	1119	34.8%	61.14	1120	31.5%	63.06	1296	32.1%	73.69	1410	30.4%	84.10
Other Race*	698	21.7%	28.86	833	23.4%	34.28	969	24.0%	36.69	1222	26.4%	45.42
Payer												
Commercial	1601	49.8%	34.86	1844	51.9%	39.00	2037	50.5%	43.76	2256	48.7%	50.35
Medicaid	1254	39.0%	40.92	1358	38.2%	44.65	1602	39.7%	48.73	1902	41.1%	58.25
Other Payer	361	11.2%	33.56	353	9.9%	35.32	396	9.8%	39.82	473	10.2%	48.20
Health Region**												
Northwest	465	14.5%	34.32	558	15.7%	40.70	564	14.0%	40.43	752	16.2%	53.70
Northern	740	23.0%	28.02	848	23.9%	32.06	962	23.8%	35.50	1084	23.4%	41.27
Eastern	853	26.5%	46.70	935	26.3%	51.75	1121	27.8%	60.12	1229	26.5%	67.48
Central	614	19.1%	39.64	660	18.6%	41.36	747	18.5%	47.00	822	17.7%	53.11
Southwest	388	12.1%	37.92	418	11.8%	41.41	450	11.2%	44.10	522	11.3%	53.35
Obstetric Hemorrhage	2020			2021			2022			2023		
Total Count (Rate)	4264 (48.81)			4567 (52.08)			5161 (57.75)			5400 (61.88)		
Rate per 1,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	2083	48.9%	46.46	2364	51.8%	51.82	2556	49.5%	56.34	2675	49.5%	61.36
Black	925	21.7%	50.54	935	20.5%	52.64	1056	20.5%	60.04	1050	19.4%	62.63
Other Race*	1256	29.5%	51.93	1268	27.8%	52.18	1549	30.0%	58.65	1675	31.0%	62.26
Payer												
Commercial	2159	50.6%	47.01	2443	53.5%	51.67	2651	51.4%	56.95	2714	50.3%	60.58
Medicaid	1584	37.1%	51.68	1612	35.3%	53.01	1980	38.4%	60.23	2090	38.7%	64.01
Other Payer	521	12.2%	48.43	512	11.2%	51.23	530	10.3%	53.30	596	11.0%	60.74
Health Region**												
Northwest	664	15.6%	49.01	746	16.3%	54.42	774	15.0%	55.48	812	15.0%	57.98
Northern	1152	27.0%	43.63	1178	25.8%	44.53	1403	27.2%	51.78	1464	27.1%	55.74
Eastern	949	22.3%	51.95	1018	22.3%	56.35	1080	20.9%	57.92	1188	22.0%	65.23
Central	747	17.5%	48.23	815	17.8%	51.07	909	17.6%	57.19	979	18.1%	63.26
Southwest	602	14.1%	58.84	621	13.6%	61.52	813	15.8%	79.67	742	13.7%	75.83

*The breakdown of the other category is shown as 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black. **Regional colors follow map on page 5

Analysis of Severe Hypertension & Obstetric Hemorrhage

Severe hypertension, obstetric hemorrhage, sepsis, and cardiac conditions were identified in the Maternal health Dashboard in conjunction with patient safety bundles from the Alliance for Innovation on Maternal Health (AIM). AIM patient safety bundles provide clear direction for perinatal quality collaboratives in their missions for hospital quality improvement initiatives. More information about the methods and guidance of AIM patient safety bundles can be found on the AIM website[1].

Severe hypertension had highest rates in black, all payers, and eastern hospital deliveries. In 2023, severe hypertension had an approximately 87% higher rate for black deliveries compared to white deliveries. Additionally, Obstetric hemorrhage had highest rates in all races, all payers, and southwest by a small margin. Statewide, rates of obstetric hemorrhage rose from 2020 to 2023.

Severe Hypertension had SMM* rate of 159.72 per 10k Hospital Deliveries

Obstetric Hemorrhage had SMM* rate of 190.72 per 10k Hospital Deliveries

Maternal Health – Perinatal

Maternal Health Outcome Measures[20] [1]												
Sepsis	2020			2021			2022			2023		
Total Count (Rate)	92 (10.53)			115 (13.12)			98 (10.97)			117 (13.41)		
Rate per 10,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	25	27.2%	5.58	51	44.3%	11.18	31	31.6%	6.83	47	40.2%	10.78
Black	28	30.4%	15.30	34	29.6%	19.14	30	30.6%	17.06	30	25.6%	17.89
Other Race*	39	42.4%	16.12	30	26.1%	12.35	37	37.8%	14.01	40	34.2%	14.87
Payer												
Commercial	37	40.2%	8.06	50	43.5%	10.58	44	44.9%	9.45	43	36.8%	9.60
Medicaid	43	46.7%	14.03	57	49.6%	18.74	41	41.8%	12.47	61	52.1%	18.68
Other Payer	12	13.0%	11.15	8	7.0%	8.00	13	13.3%	13.07	13	11.1%	13.25
Health Region**												
Northwest	19	20.7%	14.03	19	16.5%	13.86	20	20.4%	14.34	19	16.2%	13.57
Northern	26	28.3%	9.85	32	27.8%	12.10	34	34.7%	12.55	43	36.8%	16.37
Eastern	15	16.3%	8.21	27	23.5%	14.95	21	21.4%	11.26	29	24.8%	15.92
Central	21	22.8%	13.56	28	24.3%	17.54	17	17.3%	10.70	15	12.8%	9.69
Southwest	11	12.0%	10.75	11	9.6%	10.90	8	8.2%	7.84	15	12.8%	15.33
Cardiac Conditions	2020			2021			2022			2023		
Total Count (Rate)	1020 (116.79)			1091 (124.42)			1340 (149.95)			1277 (146.33)		
Rate per 10,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	618	60.6%	13.78	651	59.7%	14.27	832	62.1%	18.34	739	57.9%	16.95
Black	232	22.7%	12.68	248	22.7%	13.96	275	20.5%	15.64	277	21.7%	16.52
Other Race*	170	16.7%	7.03	192	17.6%	7.90	233	17.4%	8.82	261	20.4%	9.70
Payer												
Commercial	511	50.1%	11.13	573	52.5%	12.12	713	53.2%	15.32	688	53.9%	15.36
Medicaid	367	36.0%	11.97	378	34.6%	12.43	445	33.2%	13.54	434	34.0%	13.29
Other Payer	142	13.9%	13.20	140	12.8%	14.01	182	13.6%	18.30	155	12.1%	15.80
Health Region**												
Northwest	137	13.4%	10.11	170	15.6%	12.40	202	15.1%	14.48	204	16.0%	14.57
Northern	206	20.2%	7.80	225	20.6%	8.51	316	23.6%	11.66	285	22.3%	10.85
Eastern	303	29.7%	16.59	289	26.5%	16.00	359	26.8%	19.25	350	27.4%	19.22
Central	172	16.9%	11.10	192	17.6%	12.03	222	16.6%	13.97	211	16.5%	13.63
Southwest	140	13.7%	13.68	159	14.6%	15.75	175	13.1%	17.15	171	13.4%	17.48

*The breakdown of the other category is shown as 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black. **Regional colors follow map on page 5

Analysis of Sepsis and Cardiac Conditions

Sepsis had highest rates in black/ other race, Medicaid, and all health regions. In 2023, Sepsis had an approximately 66% higher rate for black deliveries compared to white deliveries. Additionally, sepsis rates increased about 93% in white deliveries from 5.58 per 10,000 deliveries in 2020 to 10.78 per 10,000 deliveries in 2023.

Cardiac Conditions show similar rates in both black and white populations, and similar in all insurance payer groups. The trends over the last four years show a steady increase in cardiac conditions identified at the time of delivery. Again, the regional trends show increasing rates over the last four years.

Sepsis had SMM* rate of **89.74** per 100 Hospital Deliveries

* Adjusted SMM Rates calculated based on AIM ICD-10 code lists for perinatal health outcomes
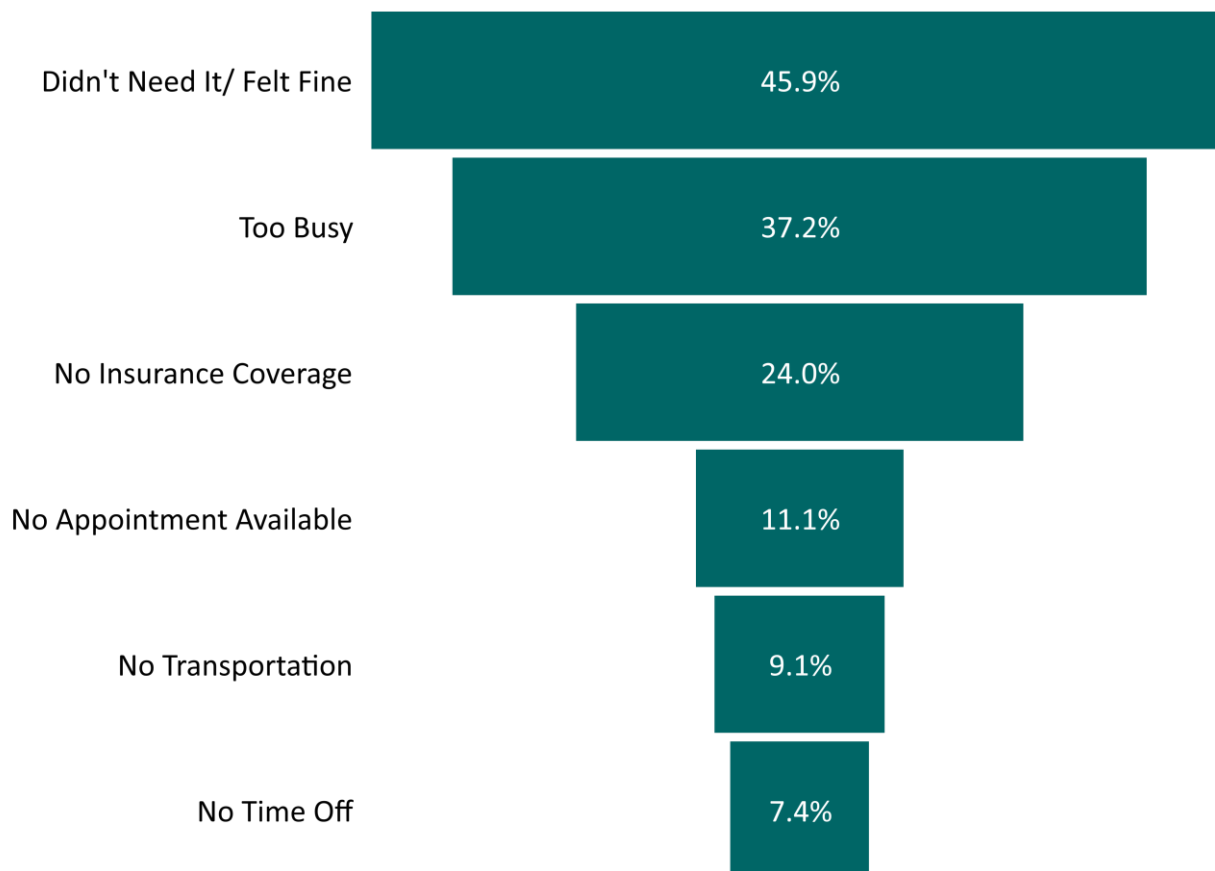
Maternal Health – Postpartum

Yes, Had Postpartum Check-Up[24] 2018-2021		90.1%
Race/Ethnicity	Non-Hispanic Black	85.9%
	Non-Hispanic White	93.9%
	Non-Hispanic Another Race	92.9%
	Hispanic	80.1%
Insurance Status	Private Insurance	96.0%
	Medicaid	83.5%
	Another Type of Insurance	87.9%
	Uninsured	78.8%
Region*	Central	89.2%
	Eastern	90.9%
	Northern	90.0%
	Northwestern	91.3%
	Southwestern	89.0%
Urbanization	Urban	90.2%
	Rural	89.0%

*Given the weighting structure of PRAMS, regional estimates should be interpreted with caution. **Regional colors follow map on page 5

Barriers to Postpartum Check-up[24] 2018-2021

Barrier	Percentage
Didn't Need It/ Felt Fine	45.9%
Too Busy	37.2%
No Insurance Coverage	24.0%
No Appointment Available	11.1%
No Transportation	9.1%
No Time Off	7.4%

Maternal Health – Postpartum

Postpartum care and check-ups are a vital part of maternal healthcare as they aim to diagnose and treat postpartum depression, and a myriad of other postpartum complications. Compared to other races/ethnicities, Hispanic birthing persons have the lowest rate of postpartum check-ups with 80% reporting a check-up, followed by black birthing persons with 86% reporting a check-up. Furthermore, uninsured birthing persons reported check-ups 79% of the time, and Medicaid birthing persons reported postpartum check-ups 86% of the time. Central and Southwest regions show a marginal discrepancy in reported check-ups along with birthing persons in rural areas showing slightly fewer postpartum checkups compared to birthing persons in urban areas. Overall, 90% of Virginia birthing persons reported attending a postpartum check-up in 2018-2021. The main barriers to attending a postpartum check-up were feeling it to be unnecessary or feeling fine, being too busy, or having poor insurance coverage.

In the most recent Maternal Mortality Review Team report, 35.9% of pregnancy-associated deaths occurred in 0-42 days postpartum, and 32.8% of pregnancy-associated deaths occurred in 43 days to 1 year postpartum in 2021.[22]

Postpartum Screenings and Diagnosis[24] 2018-2021

90.6% — Screened for Depression at Postpartum Checkup

An Estimated 2,250 Pregnant or Parenting Individuals with postpartum depression symptoms were not screened for postpartum depression in 2022.*

It is estimated that 1,030 of these individuals had a postpartum checkup without being screened for depression.

12.8% — Postpartum Depression Symptoms Regardless of Screening

PRAMS Q73i: During your postpartum checkup, did a doctor, nurse, or other health care worker ask if you were feeling down or depressed?

PRAMS Q74 & 75 (PHQ-2 Depression Screening):
- Since your new baby was born, how often have you felt down, depressed, or hopeless?
- Since your new baby was born, how often have you had little interest or little pleasure in doing things you usually enjoyed?

*Estimation based on PRAMS responses for postpartum checkups and depression screenings from 2018-2021 with 2022 overall birth counts. VDH vital records show 95,615 births in 2022, and PRAMS data show 90.1% of people had a postpartum checkup for 2018-2021. This shows that about 86,153 had a postpartum checkup and 9,463 did not. Additionally, 2018-2021 PRAMS data show that 90.6% of those receiving a checkup reported a depression screening. Of the 86,153 people with a checkup, about 78,054 had a depression screening and 8,098 did not. A total of 17,561 people either had a checkup with no depression screening or no checkup thus no screening. The PRAMS data show 12.8% of people exhibited symptoms of postpartum depression based on responses to PHQ-2 depression questions. 12.8% of the 17,561 with no screening is about 2,250 people. 12.8% of those 8,098 people with a checkup and no screening is about 1,030 people. These numbers are estimates and may not represent precise counts.

Maternal Health – Other

Reasons for Experiencing Discrimination[24] 2018-2021

Category	Percent
Marital Status	2.9%
Insurance or Medicaid Status	3.4%
Weight	5.4%
Race	5.4%

Percent of PRAMS Respondents that Reported Discrimination

Of those that reported racial discrimination:
- 46.1% are Non-Hispanic Black
- 23.8% are Non-Hispanic White
- 16.7% are Hispanic

Of those that reported weight discrimination:
- 57.0% are Non-Hispanic White
- 20.7% are Non-Hispanic Black
- 9.2% are Hispanic

Of those that reported insurance discrimination:
- 41.2% are Uninsured
- 33.8% have Medicaid
- 17.9% have Private Insurance

Of those that reported marital status discrimination:
- 58.1% are Non-Hispanic White
- 24.6% are Non-Hispanic Black
- 9.2% are Hispanic

Roughly **1 in 20** Pregnant or Parenting Individuals experienced Racial Discrimination.

Roughly **1 in 7** Black Pregnant or Parenting Individuals experienced Racial Discrimination.

Maternal Age[20] in 2023
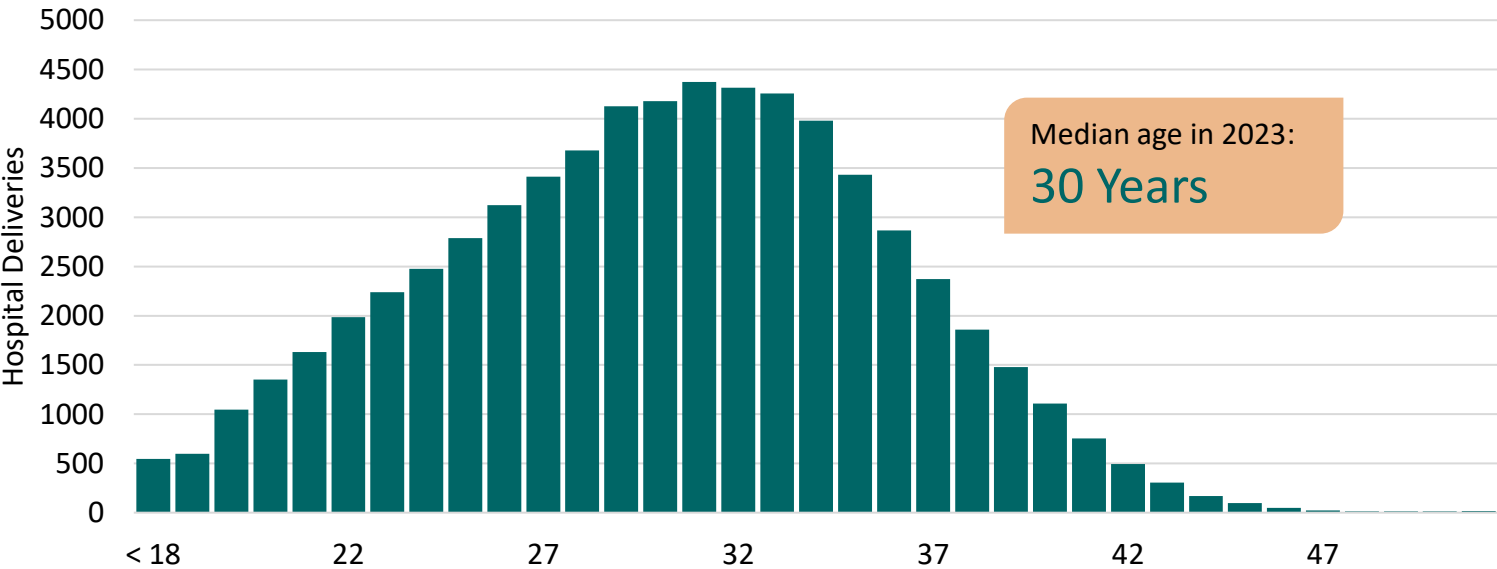
Median age in 2023:
30 Years
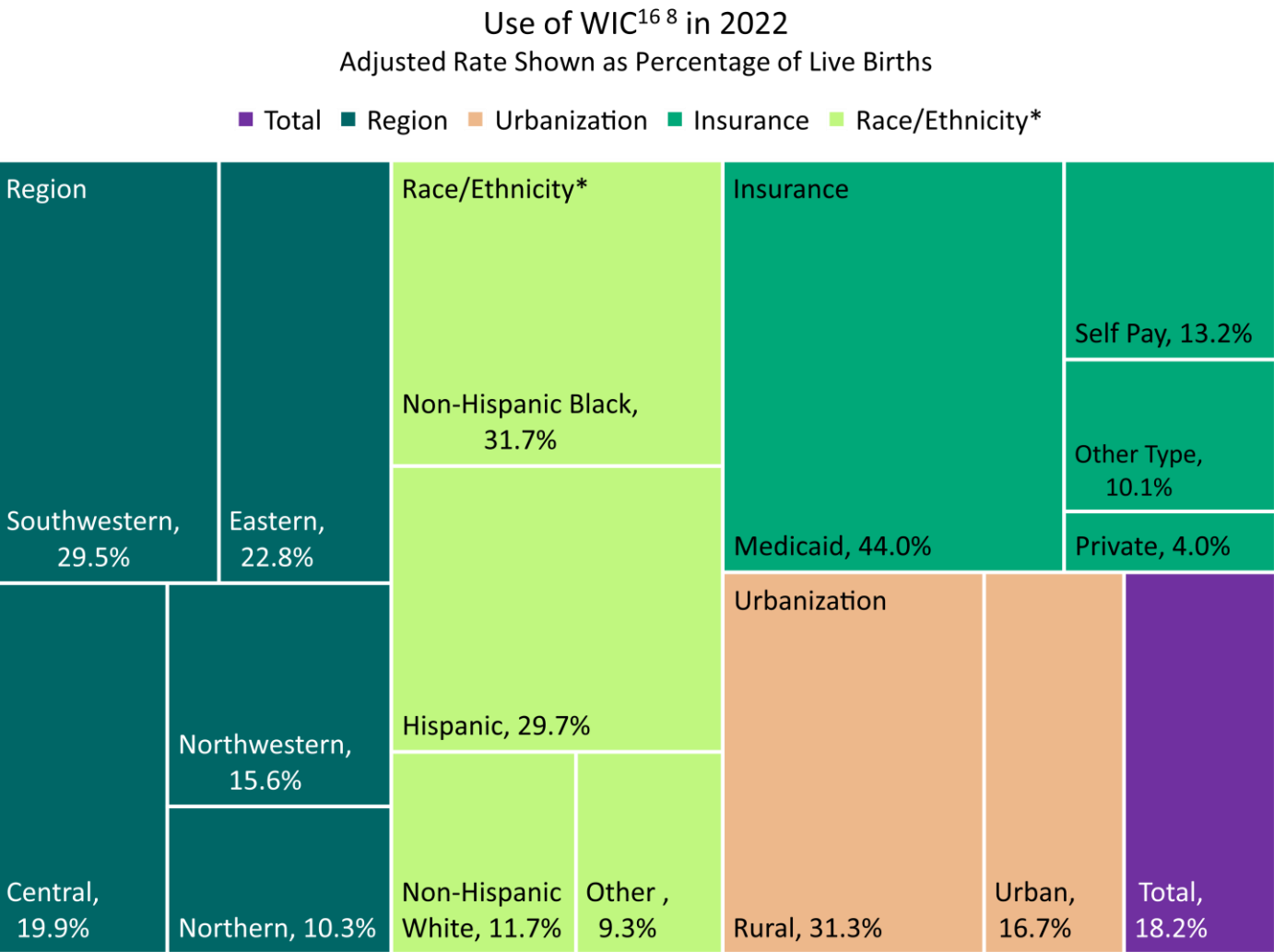
Maternal Health – Other

Use of WIC[16][8] in 2022
Adjusted Rate Shown as Percentage of Live Births

■ Total ■ Region ■ Urbanization ■ Insurance ■ Race/Ethnicity*

Region		Race/Ethnicity*		Insurance		
Southwestern, 29.5%	Eastern, 22.8%	Non-Hispanic Black, 31.7%				Self Pay, 13.2%
						Other Type, 10.1%
	Northwestern, 15.6%	Hispanic, 29.7%		Medicaid, 44.0%		Private, 4.0%
Central, 19.9%	Northern, 10.3%	Non-Hispanic White, 11.7%	Other, 9.3%	Rural, 31.3% (Urbanization)	Urban, 16.7%	Total, 18.2%

*Race/Ethnicity Data from CDC Wonder and based on Race/Ethnicity adjusted CDC Wonder birth counts

DMAS Community Doula Program[9]

The Community doula program was passed in 2022 with expanded Medicaid coverage for doula services in Virginia.

Since the program's inception in 2022:
- 132 doulas have received state certification
- 101 doulas are approved for Medicaid reimbursement
- 168 doulas have assisted births to Medicaid members
- 372 Medicaid members have had doula support prenatally, in pregnancy, and postpartum

With Medicaid, there is no limit to the number of doula supported deliveries a single person can have, but reimbursement amount does not change with birth plurality

Virginia recently passed law SB118[25] that will require all health insurers to provide coverage for doula services!

*Counts updated as of February 22, 2024

Infant Health

Neonatal Abstinence Syndrome (NAS)[20]											
	2020			2021			2022			2023		
Total Count (Rate)	558 (6.39)			570 (6.50)			482 (5.39)			457 (5.24)		
Rate per 1,000 Hospital Deliveries	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Race												
White	426	76.3%	9.50	412	72.3%	9.03	345	71.6%	7.60	302	66.1%	6.93
Black	51	9.1%	2.79	79	13.9%	4.45	77	16.0%	4.38	62	13.6%	3.70
Other	81	14.5%	3.35	79	13.9%	3.25	60	12.4%	2.27	93	20.4%	3.46
Payer												
Commercial	35	6.3%	0.76	49	8.6%	1.04	27	5.6%	0.58	31	6.8%	0.69
Medicaid	473	84.8%	15.43	463	81.2%	15.22	406	84.2%	12.35	379	82.9%	11.61
Other	50	9.0%	4.65	58	10.2%	5.80	49	10.2%	4.93	47	10.3%	4.79

*The breakdown of the other category is shown as 43.2% other specified (multiracial), 23.7% Asian, 16.2% unknown, 15.5% Hispanic – white, 0.8% American Indian, and 0.5% Hispanic – black.

> State Title V Objective: **By 2025, reduce the rate of infants born with Neonatal Abstinence Syndrome (NAS) from 5.9 (2020) to 5.6 (2025) per 1,000 birth hospitalizations**

Neonatal Abstinence Syndrome (NAS) is defined by conditions resulting from infant exposure to substances while in the womb, and these cases are most commonly a result of maternal opioid use[13]. NAS has potentially lifelong complications associated and may also lead to infant death. The data here are closely associated with maternal opioid use. The highest rates of NAS from 2020-2023 occurred in infants born to white birthing persons and birthing persons with Medicaid. The four-year trend is showing a decrease in incidence rates, but incidence rates for white and Medicaid deliveries are still much higher than the Title V Objective in 2023.

Infant Mortality[16]
Rate Per 1,000 Births

Legend: Total, Non-Hispanic White, Non-Hispanic Black, Hispanic
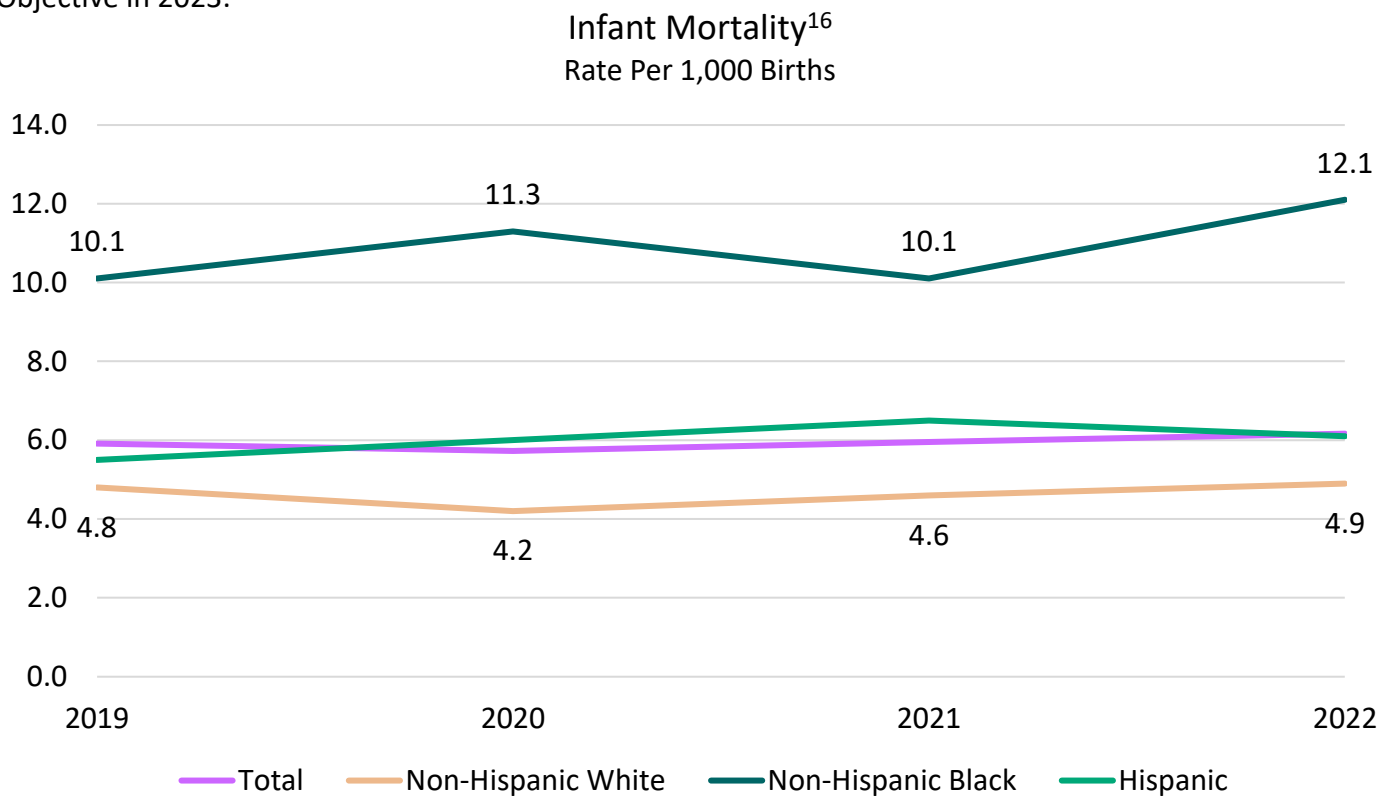
> State Title V Objective: **Decrease the disparity in Black-White infant mortality ratio from 2.0 (2019) to 1.2 (2025)**

> Black-White infant mortality ratio in 2022: **2.47**

Final: 4/30/2024

Infant Health

Infant Mortality[16]
Rate per 1,000 Births

Legend: ■ 2019 ■ 2020 ■ 2021 ■ 2022
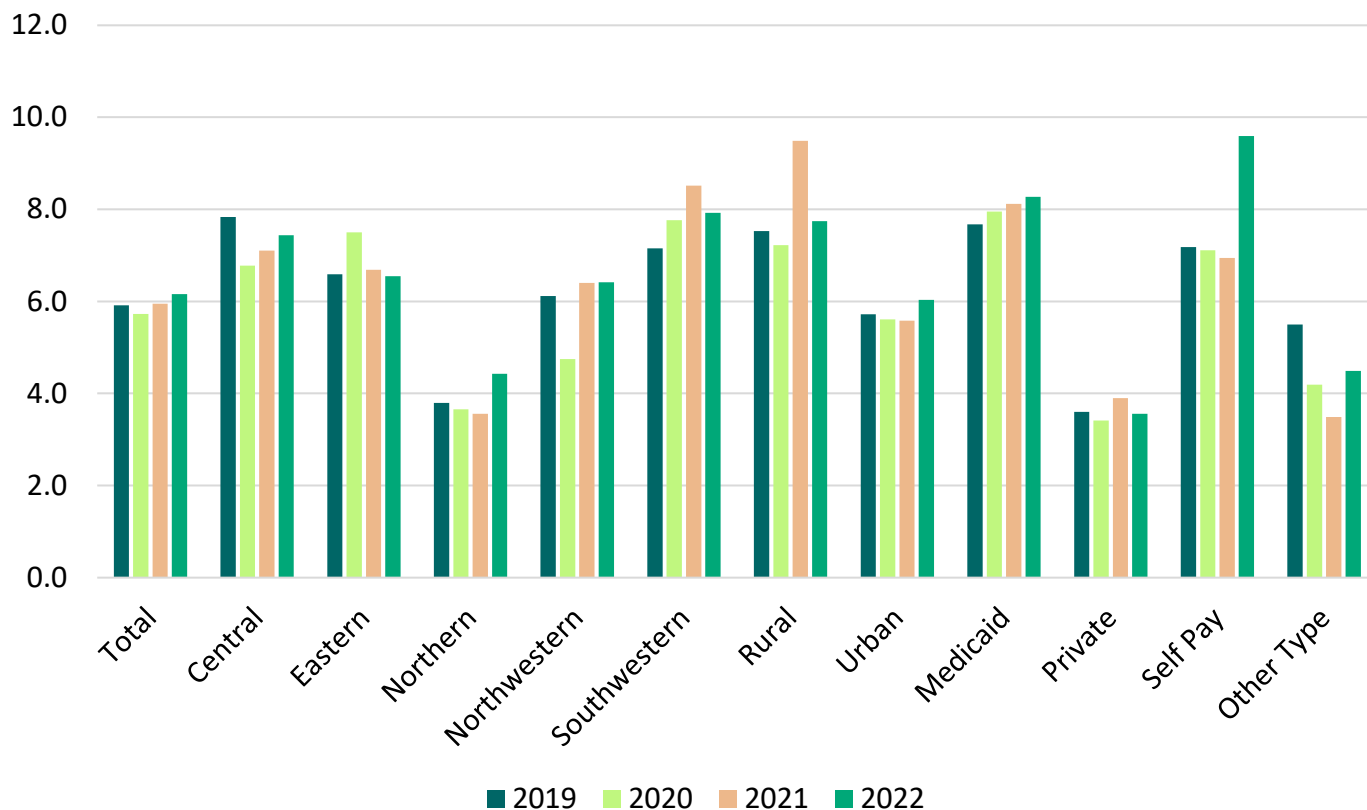
Preterm Births[16][8]
Adjusted Rate Shown as Percentage of Live Births
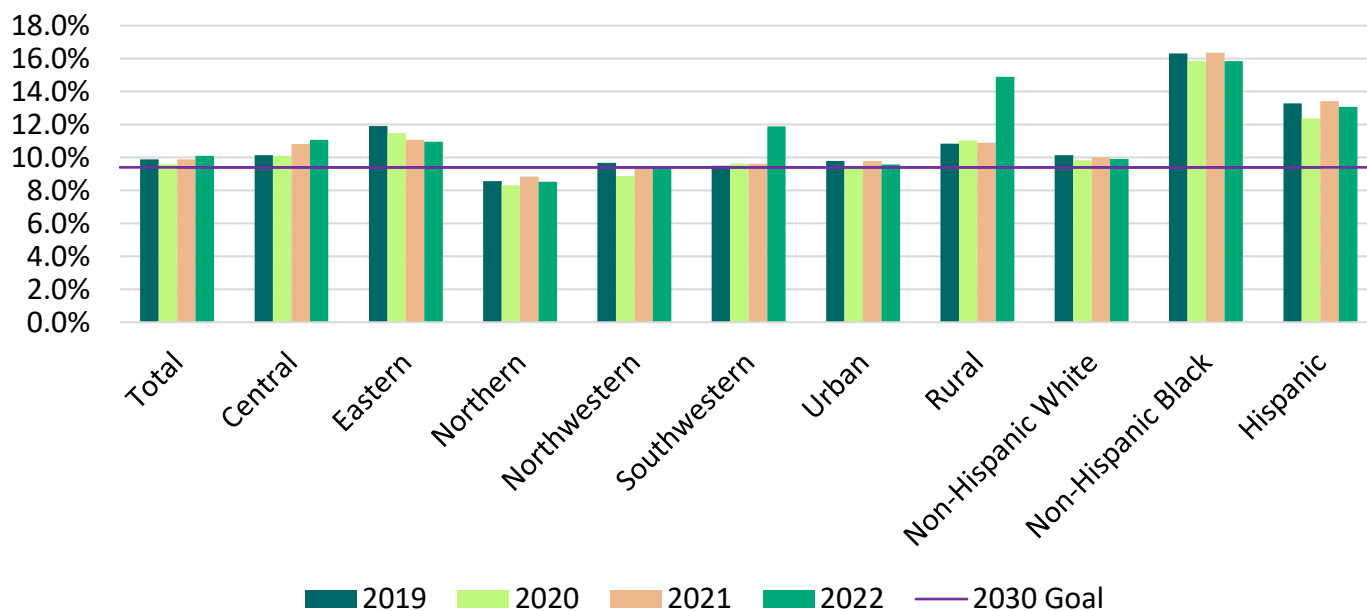
Legend: ■ 2019 ■ 2020 ■ 2021 ■ 2022 — 2030 Goal

*Race/Ethnicity Data from CDC Wonder and based on Race/Ethnicity adjusted CDC Wonder birth counts

Healthy People 2030 – MICH 07: Reduce Preterm Births to 9.4%

Access to Care

Virginia Birthing Hospitals
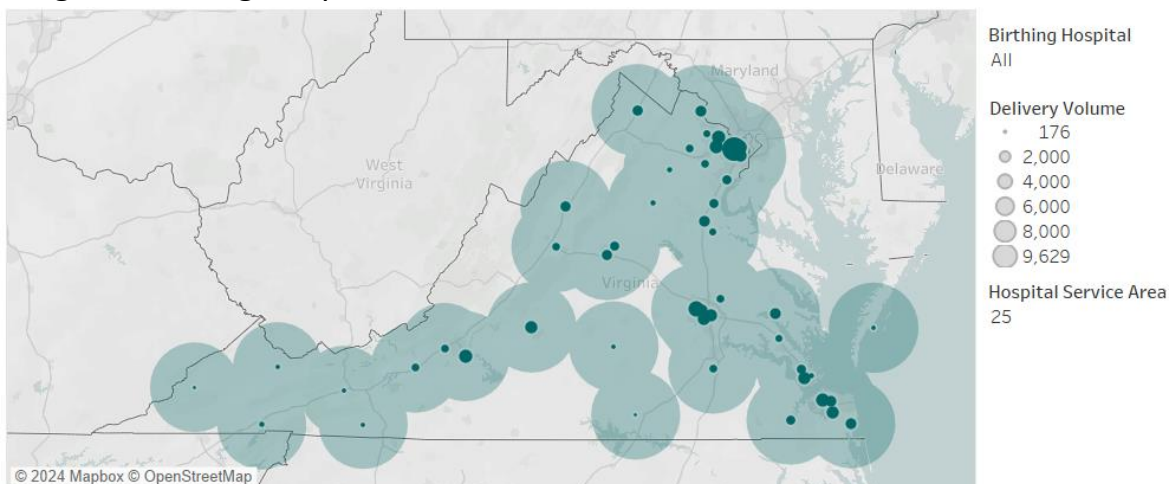
The map displayed above shows each of the 49 Virginia Birthing Facilities that are operating as of April 1st, 2024. The dark circles signify the location, and the size is adjusted to accommodate delivery volumes reported to VNPC from facilities. Additionally, the shaded buffer shows an approximate 25-mile service area for the facility. There are areas in Northwest and Southwest regions of Virginia that are more than 25 miles to the nearest birthing facility. Important note: being in the 25-mile service area does not mean there are no geographical barriers to receiving care, but it does demonstrate total distance as a barrier.

Below, the map is highlighting the number of level 3 and 4 maternal & infant hospitals as assessed by CDC LOCATe (Levels of Care Assessment Tool) in each of the 5 VDH health regions: northern, northwest, southwest, central, and eastern. CDC LOCATe is a perinatal regionalization tool that evaluates hospitals to establish strategies for risk-appropriate care.[5] The American Academy of Pediatrics identifies level 3 infant hospitals as "NICU", and level 4 as "Regional NICU".[2] The American College of Obstetricians and Gynecologists identifies level 3 maternal hospitals as "subspecialty care", and level 4 maternal hospitals as "regional perinatal healthcare centers".[3]

Number of Level 3 &4 LOCATe Hospitals in Each Region
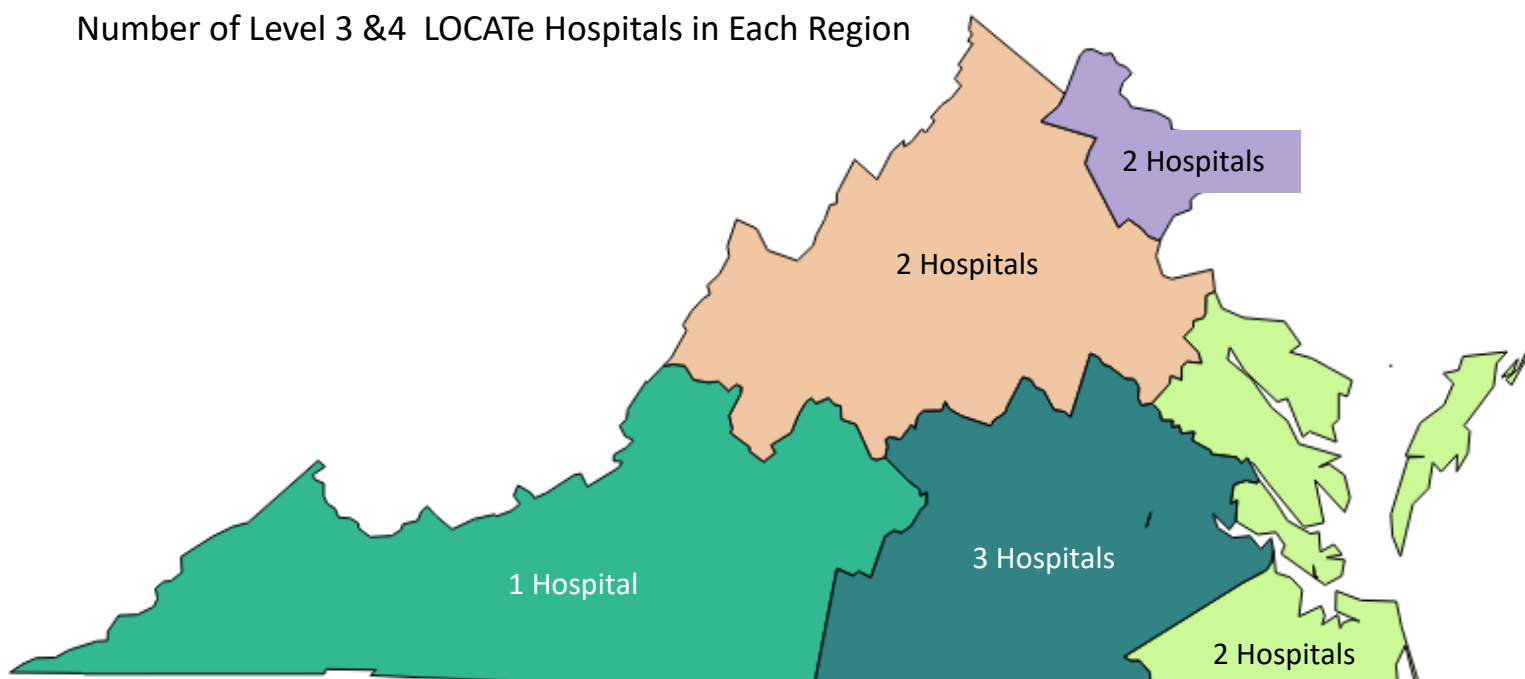
Access to Care

Maternal and Infant Care Providers in Virginia
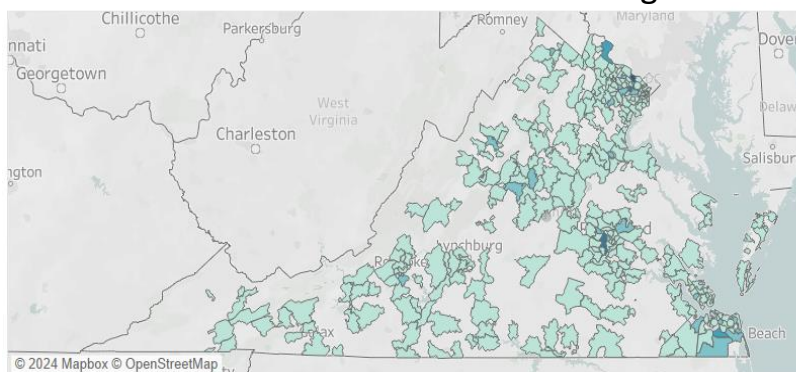
The map above shows the locations of each maternal/infant provider identified from the Virginia Department of Health Professions provider database.[18] The Department of Health Professions keeps a database of all medical and nurse providers with active licenses and specifies their specialties. The map highlights specialties pertaining to infant and maternal health and includes physicians and nurses with active Virginia license's as of February 29th, 2024. These providers have also been linked to a database from DMAS that highlights providers enrolled for Medicaid reimbursement updated January 2024.[19]

Below, a map from the Virginia Department of Health is showing differences in the Health Opportunity Index (HOI) in Virginia counties.[14] HOI is calculated using measures pertaining to economic opportunity, consumer opportunity, community environmental, and wellness disparity factors. The HOI is a standardized way to measure social determinants of health (SDOH) on a large scale across Virginia.

Virginia Health Opportunity Index

Accessed March 7th, 2024

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Appendix – Other Useful Reports & Recommendations

MMRT Report Recommendation Themes – February 2024[22]

Public outreach/ awareness/ education campaigns related to substance abuse

1. Education and outreach to reduce the stigma related to substance abuse and pregnancy must be done to encourage birthing persons to seek treatment and care during and after pregnancy.
2. Education should be provided on the importance of annual physicals, having a medical model home and insurance coverage, as it increases the opportunity for substance use screening and health education.

Regular Screenings and Risk Assessment

1. For birthing persons with a history of trauma and high-risk profile, providers should conduct regular screenings for depression throughout care.
2. For pregnant and post-partum birthing persons that have a known history of substance abuse, drug screenings should be performed on admission to the hospital.
3. Providers should conduct risk assessments and social determinants of health assessments at the initiation of treatment and then refer to the appropriate services, including home visiting and doula services.

Making the appropriate referrals

1. Providers should consult with social work, as appropriate, for pregnancy and post-partum birthing persons that exhibit multiple stressors and have a history of trauma and chronic substance abuse.
2. Appropriate referrals should be provided for birthing persons with chronic conditions and history of poor disease management.

Coordination of Care

1. Health care systems should provide care coordination for pregnant and postpartum birthing persons following discharge from the hospital to ensure that the appropriate referrals are completed, and treatment plans followed.
2. Care coordination that address the barriers created by multiple stressors for the birthing person is essential in helping them to seek the appropriate care and treatment. Education on the care coordination services available and contact information should be included in the medical record or readily available with the birthing persons insurance information.

Violence Reduction

1. Consistent advocacy across the state is needed so that all women are protected. More of a connection to an actual person for resources is necessary. Efforts could include assigning a case-worker to follow-up for each protective order granted.

Maternal Health Data Task Force – January 2024[17]

Recommendations:

1. Improve the Virginia All-Payer Claims Database (APCD)

2. Develop a Statewide Maternal Health Data Board

3. Ensure Behavioral Health Access for Pregnant and Postpartum Women

4. Enhance Maternal Mental Health Data

5. Expand Maternal Health Data Reporting

6. Continue to Fund Yearly VNPC Report

7. Incorporate Evidence-Based Home Visiting Program into the Model of Care

8. Expand Benefit Coverage to Include Presumptive Eligibility for Ambulatory Prenatal Care

9. Authorize Federally Qualified Health Centers to Bill for Multiple Encounters

10. Authorize Medicaid to Cover and Reimburse FQHCs for Services Delivered by Doulas, Marriage & Family Therapists, Licensed Professional Counselors, and CHWs

11. Expand Preventive Dental Services for Expectant Mothers

12. Implement Multi-Year Continuous Eligibility for Children up to Five Years of Age

13. Expand Medicaid Facility Reimbursement to Birthing Centers

14. Expand Access and Utilization of State Certified Doula Services

15. Mandate 12 Months of Postpartum Coverage for Commercial Insurance Plans

16. Increase Sustained Funding for Community Health Workers (CHWs)

17. Identify Reimbursements to Incentivize SDoH Screenings

18. Improve Collection of SDoH Data

19. Incentivize Collection of Z Codes

20. Improve Screening for Intimate Partner Violence

21. Improve Existing Data Surveillance Systems to Understand Experiences Up to One Year Postpartum

22. Develop a Fetal Infant Mortality Review Team

Baby Steps DMAS Report - 2022[4]

Recommendations:

- Eligibility and Enrollment - Streamlining newborn and maternity enrollment

- Outreach and Information – Engaging with internal and external stakeholders and sharing information with members

- Connections - Engaging with providers, community stakeholders, hospital, and state agencies

- New and Improved Services and Policies - Collaborating with state projects to enhance services

- Oversight: Utilization and Evaluation - Use data and reports to monitor and improve programs

DMAS Data Reports[19]

As mentioned on page 7, the Virginia Department of Medical Assistance Services also measures births that were covered by Virginia Medicaid. Its important to note that the counts for Medicaid births from DMAS are higher than what is seen in the Vital Records Data. DMAS is matching records from the birth records to a database of people between the ages of 10 and 55 enrolled in Virginia Medicaid at the time of a birth event. Additionally, DMAS has released several reports that highlight the demographics of the Virginia Medicaid population, usage of prenatal and postpartum services, and health outcomes. A link to access these reports has been provided here with a QR code. These reports are the source of the DMAS table seen on page 7.

White House Maternal Health Blueprint – June 2022[12]

Goals:
1. Increase Access to and Coverage of Comprehensive High-Quality Maternal Health Services, Including Behavioral Health Services.
2. Ensure Those Giving Birth are Heard and are Decisionmakers in Accountable Systems of Care
3. Advance Data Collection, Standardization, Transparency, Research, and Analysis
4. Expand and Diversify the Perinatal Workforce
5. Strengthen Economic and Social Supports for People Before, During, and After Pregnancy