HEALTHY MOTHERS, HEALTHY BABIES
Coalition of Georgia

STATE OF THE STATE

Maternal and Infant Health Report

GEORGIA

OCTOBER 2022

FOURTH EDITION

The State of the State: Maternal and Infant Health Report summarizes the known data and evidence regarding maternal and infant health indicators in the state of Georgia. It is published by Healthy Mothers, Healthy Babies Coalition of Georgia. The purpose of this report is to continue to share current knowledge and projected trends of maternal and infant health outcomes in Georgia, as well as what can be accomplished to ensure families survive and thrive.

TABLE OF CONTENTS

TABLE OF CONTENTS

ACKNOWLEDGMENTS

Healthy Mothers, Healthy Babies Coalition of Georgia (HMHBGA) would like to recognize the following people for their contributions to this report. Their expertise, time, and dedication to sharing evidence-based maternal and child health research and best practices furthers our mission of improving maternal and infant health through advocacy, education, and access to vital resources.

We are immensely thankful to our Executive Director, Kyesha Lindberg for her contributions to the development and implementation of the report. Thank you to Michael Bryan, PhD, MPH from the Georgia Department of Public Health for his contribution to the infant & fetal health sections and Terri Miller, MPH also from the Georgia Department of Public Health for her contributions to the intimate partner violence section. We would like to acknowledge Katie Kopp, MPH for her contribution to the list of available labor and delivery units in Georgia.

About Healthy Mothers, Healthy Babies Coalition of Georgia

Since 1974, Healthy Mothers, Healthy Babies Coalition of Georgia has been the strongest statewide voice for improved access to healthcare and health outcomes for Georgia's mothers and babies. HMHBGA is the only organization in Georgia that focuses on the full spectrum of maternal and child health concerns from prematurity to maternal mortality.

Access to Vital Resources:
On behalf of the Georgia Department of Public Health (DPH), HMHBGA operates the Georgia Family Healthline, Children 1st high-risk screening line, and Help Me Grow Georgia to provide callers with appropriate referrals and resources across the State. HMHBGA also operates the Prevent Child Abuse Georgia Helpline on behalf of Georgia State University.

Advocacy:
In a non-partisan role, HMHBGA engages with legislators as well as medical, business and other community organizations to encourage fiscally responsible policies that promote access to care and improved health outcomes for women and children.

Education:
HMHBGA provides evidence-informed prenatal education across the State through collaboration with other community organizations and clinicians. HMHBGA also works to educate and build capacity for healthcare providers and public health professionals working in maternal and infant health across Georgia.

INTRODUCTION

Healthy Mothers, Healthy Babies Coalition of Georgia's (HMHBGA) mission is to improve maternal, child and infant health through advocacy, education, and access to vital resources. Published every 3 years, the State of the State of Maternal and Infant Health in Georgia is provided by HMHBGA for both private and public stakeholders to summarize pertinent health data in the following areas: Fetal and infant health, maternal health, access to care, racial and ethnic disparities, and regional perinatal statistics. Our goal is to continue to share the knowledge of where we have been, where we are now, and what can be done through the collaboration of invested stakeholders. Previous State of the State reports were published in 2016 and 2019. In this version of the report, the most recent data was collected up to 2020 or 2021. We have included the following new sections: Definitions, Pre-pregnancy weight, Pregnancy Medicaid at the federal and state level, Labor & delivery facilities, OBGYN facilities, COVID-19, and HMHBGA special projects. A significant amount of the data used in this report are from primary sources.

Data analysis conducted by Thunwa Klaihathai and the following Graduate Research Interns: Shrijana Chalise, Yasmin Goreja, Courtney Poppleton, Destiny Stokes, Ariella Williams, and Haley Zagoria.

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Learn more about ways to get involved with Healthy Mothers, Healthy Babies Coalition of Georgia by emailing us at thecoalition@hmhbga.org.

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DEFINITIONS

URBAN v. RURAL: A county is labeled as rural when it has “a population of less than 50,000 according to the United States decennial census of 2010 or any future such census”. Counties that are non-rural (urban) have a population greater than 50,000 people (1).

LIVE BIRTH: A live birth is defined as the complete expulsion or extraction from the mother of a product of human conception, irrespective of the duration of pregnancy, which, after such expulsion or extraction, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, regardless of whether the umbilical cord has been cut or the placenta is attached (2).

INFANT MORTALITY RATE: The infant mortality rate is the number of infant deaths for every 1,000 live births. Infant mortality is the death of an infant before his or her first birthday (3).

PREMATURE BIRTH RATE: The number of live births with a gestational age less than 37 weeks, per 100 live births (4).

FETAL MORTALITY RATE: is the number of fetal deaths at 20 weeks of gestation or more per 1,000 live births and fetal deaths (3).

MATERNAL MORTALITY: Death of a woman during pregnancy or within one year of the end of pregnancy from a pregnancy complication, or aggravation of a condition by the physiological effects of pregnancy (6).

MATERNAL MORBIDITY: The number of instances in which the mother experienced admission to the ICU, a ruptured uterus, a transfusion, and/or an unplanned hysterectomy per 1,000 births (7).

PERINTAL MOOD AND ANXIETY DISORDERS: Is the term used to describe distressing feelings that occur during pregnancy (perinatal) and throughout the first year after pregnancy (8).

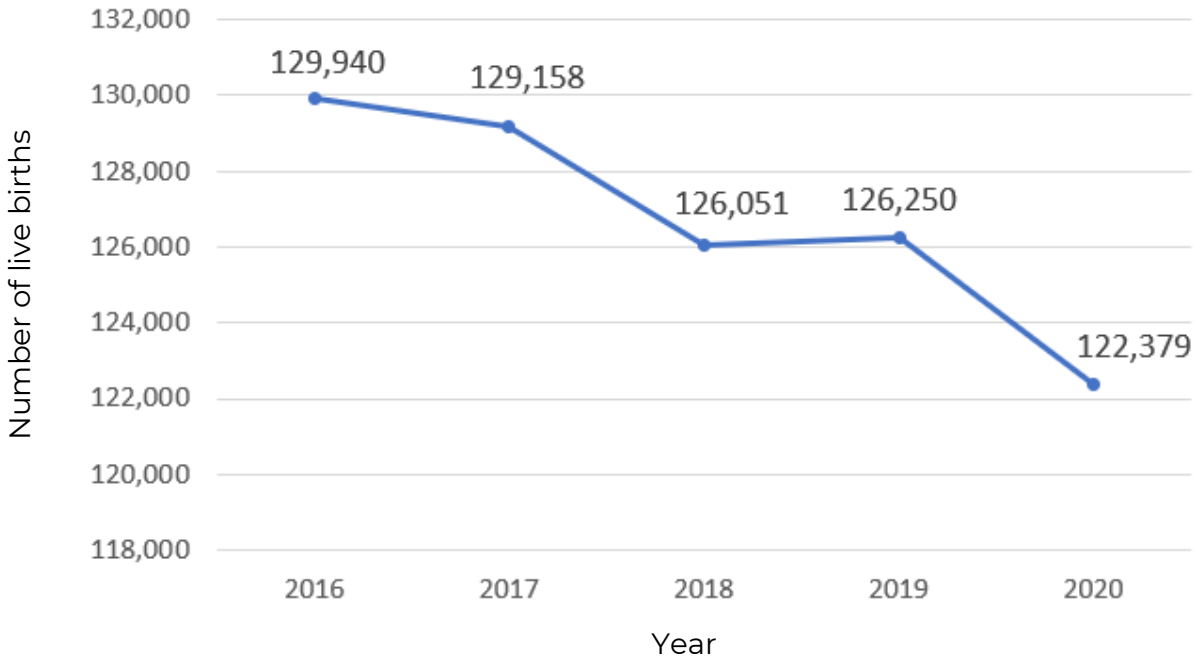
KOTELCHUCK INDEX: The Kotelchuck Index, also called the Adequacy of Prenatal Care Utilization (APNCU), uses two crucial elements obtained from birth certificate data-when prenatal care began (initiation) and the number of prenatal visits from when prenatal care began until delivery (9).

BIRTH RATE: is defined by the Georgia Department of Public Health as "the number of live births occurring to females in an age group per 1,000 females in the same age group"(5). In the state, the birth rate from 2016 to 2020 has steadily decreased. Despite the decrease, rural regions of the state continue to report higher birth rates in comparison to the state average and urban birth rates.

FETAL & INFANT HEALTH

LIVE BIRTHS

Figure 1. Total live births in Georgia, 2016-2020, *OASIS*



There were 122,379 births in the state in 2020 and the total births in Georgia has consistently declined since 2016. Rural counties reported over 24,000 births, while non-rural counties reported slightly less than 100,000 births in the same year. There were 24,208 rural births in the state in 2020. This was the largest year-over-year decline in the last five years.

Figure 2. Total Live Births in Rural Georgia, 2016 - 2020, *OASIS*

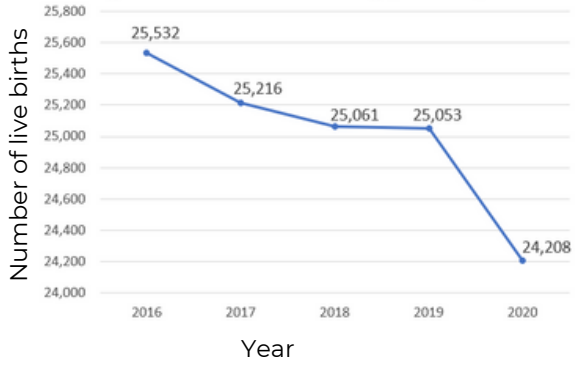
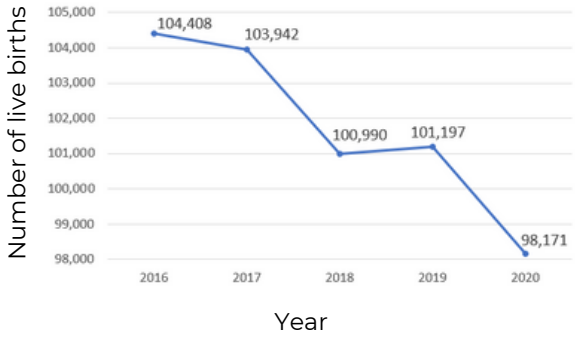


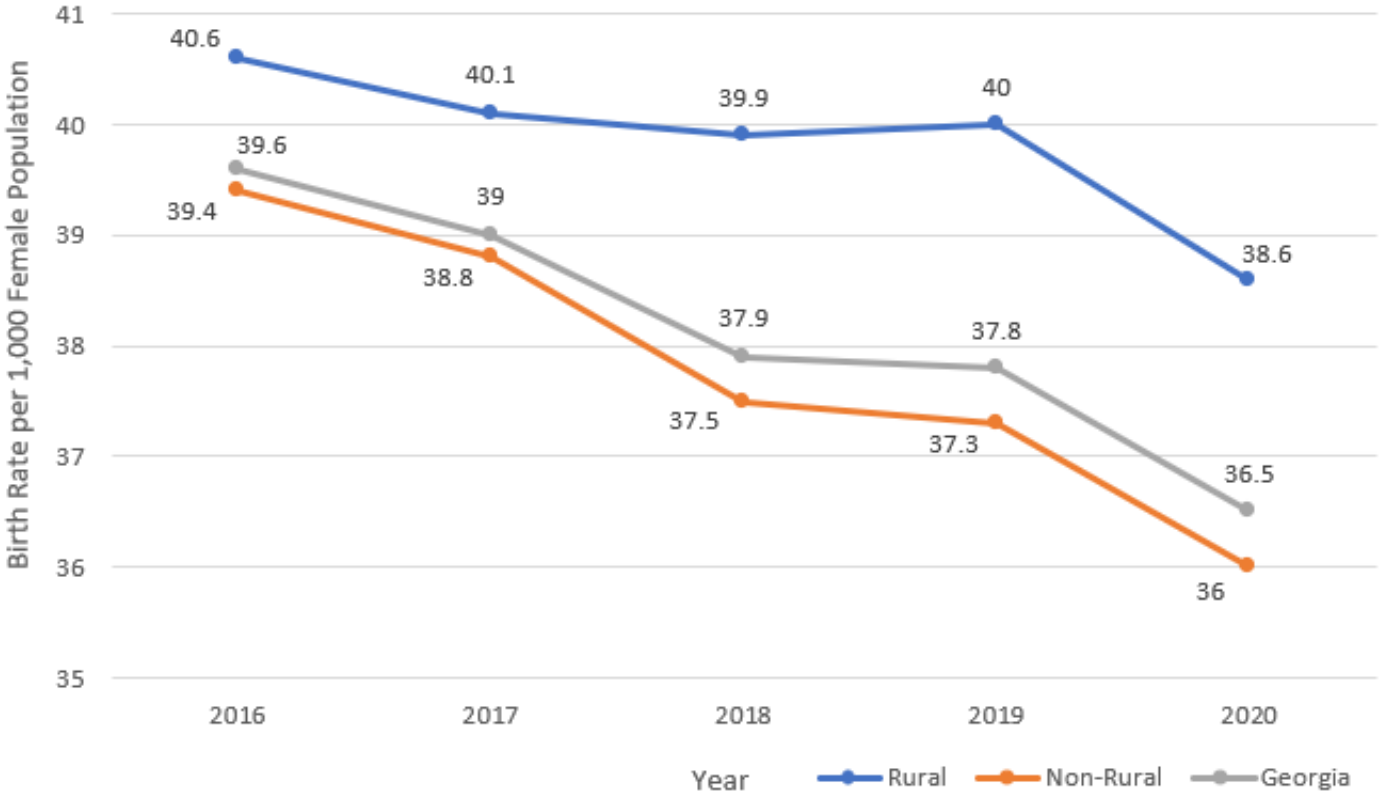
Figure 3. Total Live Births in Non-Rural Georgia, 2016 - 2020, *OASIS*



FETAL & INFANT HEALTH

LIVE BIRTHS

Figure 4. Birth Rate Trend in Rural and Non-Rural Georgia, 2016-2020, *OASIS*



Although birthing trends have been declining in the last five years, rural counties in Georgia are still experiencing a higher birth rate than both the non-rural counties and overall state average.

What Factors Influence Birthing Trends?

Social Factors :

Postponement of Marriage
Better access to contraception and family planning resources
Postponement of childbearing to older ages
Increase in women's educational attainment
Increase in women's participation in the workforce

Additional Factors:

Fears over climate change
Economic instability
Political uncertainties regarding reproductive health

(10)

FETAL & INFANT HEALTH

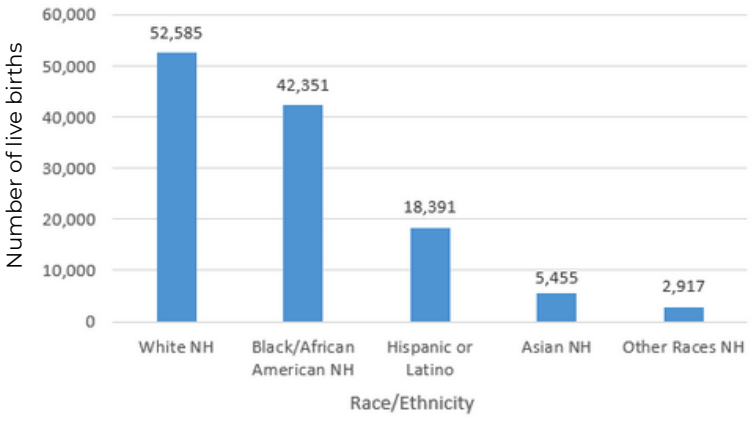
LIVE BIRTHS

Table 1. Total live births by demographics, 2016-2020, *OASIS*

Demographics		2016	2017	2018	2019	2020
	Total Births	129,940	129,158	126,051	126,250	122,379
Race/Ethnicity						
	White (NH)	57,077	57,010	55,533	54,706	52,585
	Black/African American (NH)	43,491	44,102	43,545	43,657	42,351
	Hispanic or Latino	17,909	17,918	17,415	18,403	18,931
	Asian (NH)	5,723	5,904	5,812	5,684	5,455
	Other races (NH)	4,057	2,979	2,802	2,904	2,917
Education						
	Less than high-school	18,699	17,013	15,927	15,860	14,684
	High-school diploma/GED	38,235	39,344	39,694	39,519	39,623
	Some college or higher	71,849	71,988	69,881	70,201	67,674
Maternal Age						
	10-17 years	2,262	1,977	1,964	1,796	1,734
	18-24 years	36,099	34,974	33,016	32,680	30,878
	25-34 years	71,501	71,586	70,259	70,570	68,868
	35-44 years	19,774	20,317	20,531	20,893	20,601
	Over 45 years	304	304	281	311	298
Residence						
	Rural	25,532	25,216	25,061	25,053	24,208
	Non-rural	104,408	103,942	100,990	101,197	98,171

- NH: Non-Hispanic
- Data for Hispanic or Latino mothers in Georgia may be unreliable due to underreporting in census date or over-reporting of birth certificates.
- NH Other - Includes American Indian or Alaska Native, Native Hawaiian, or Other Pacific Islander, multiracial, unknown

Figure 5. Number of live births in Georgia by Race/Ethnicity, 2020, *OASIS*

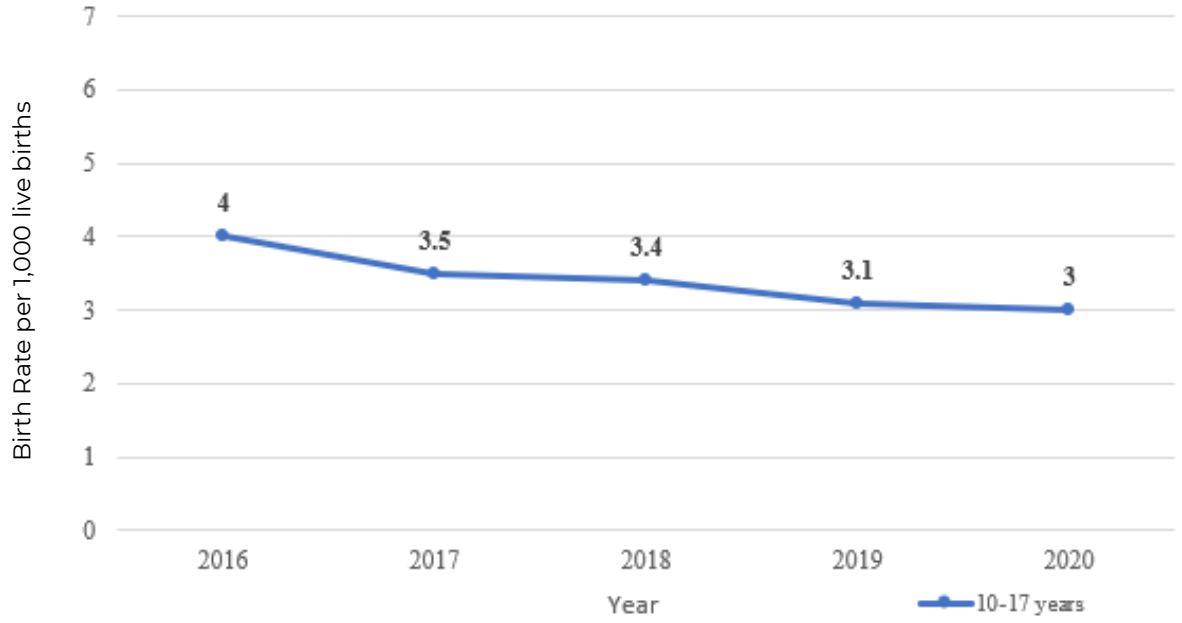


During 2016-2020, reports illustrate a decrease in births among non-Hispanic White, Black or African American, and Asian women. Moreover, there was an increase of live births among Hispanic and/or Latin women. American Indian, Alaska Native, Native Hawaiians and Other Pacific Islanders had less than 5,000 live births in 2020 compared to other racial groups.

FETAL & INFANT HEALTH

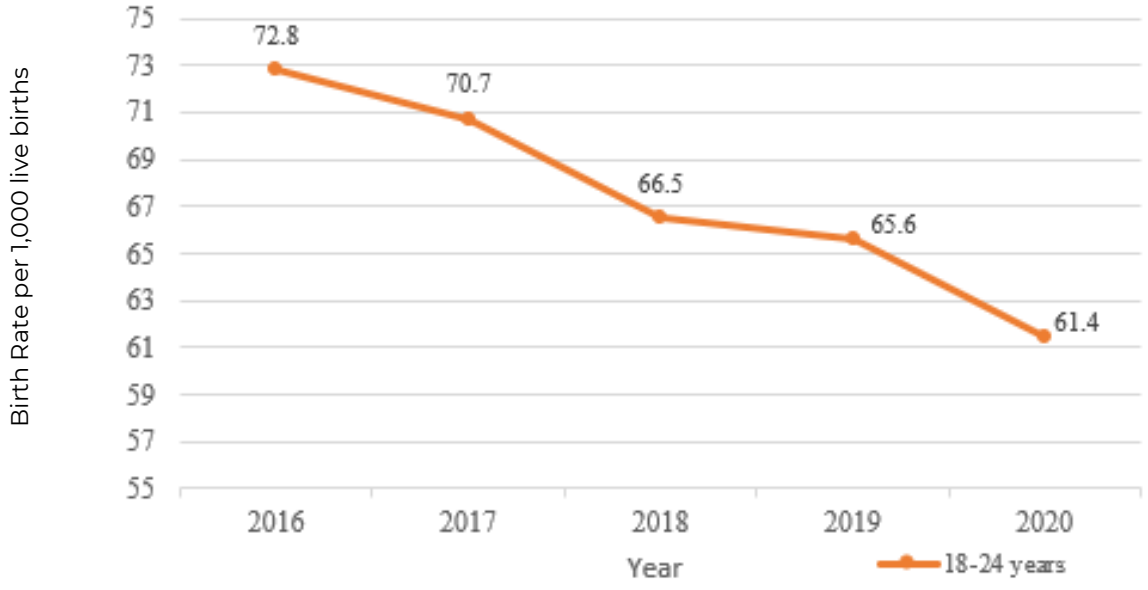
LIVE BIRTHS

Figure 6. Birth Rate of Pre-Teens and Teens (10-17 years old), 2016-2020, OASIS



Young women aged 10 - 17 report lower live birth rates out of all maternal age groups. Live birth rates declined from 4 to 3 over the course of four years.

Figure 7. Birth Rate of Young Adults (18-24 years old), 2016-2020, OASIS

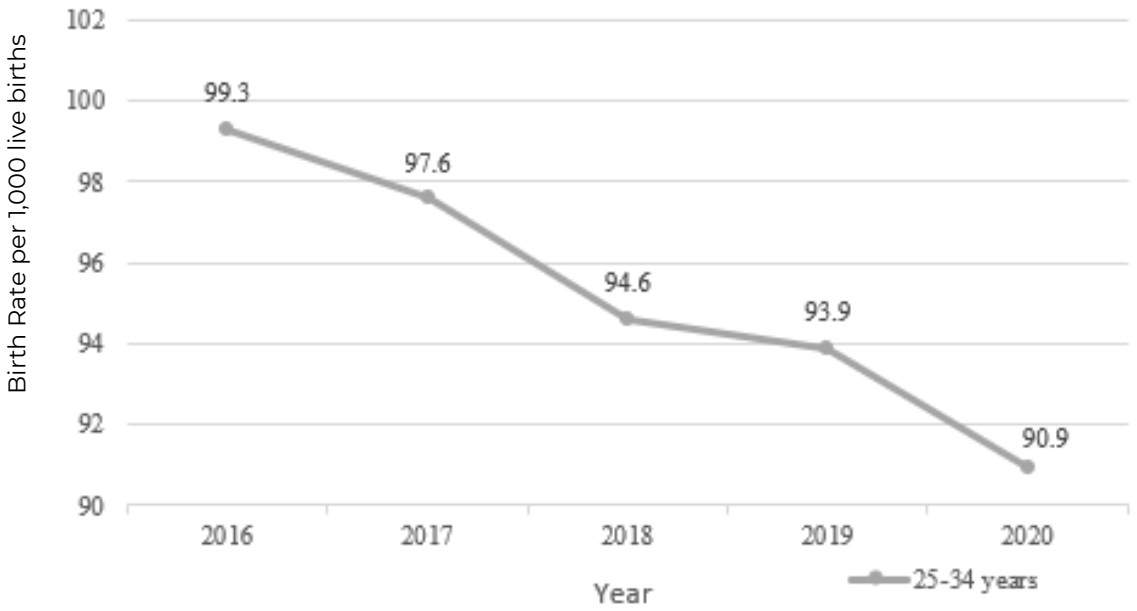


Women between 18 - 24 years of age in the state of Georgia have experienced a steady decline in the live birth rates per 1,000 since 2016.

FETAL & INFANT HEALTH

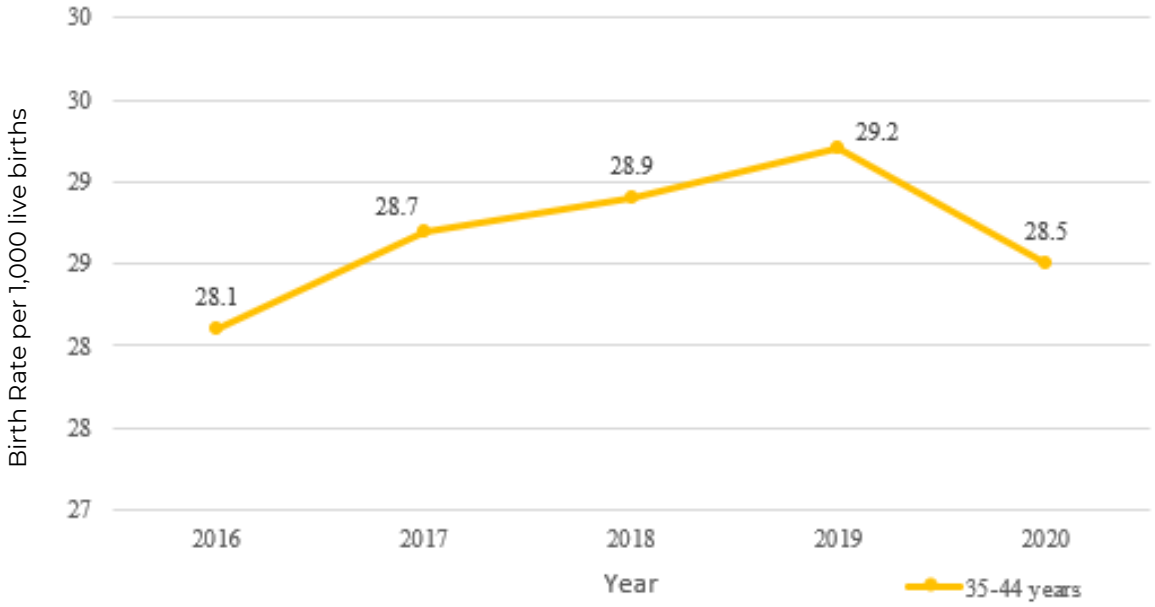
LIVE BIRTHS

Figure 8. Birth Rate Adults (25-34 years old), 2016-2020, OASIS



Similarly to figure 10, women of 25 - 34 years of age experienced a decline in live birth rates per 1,000. However, this group has the highest birth rate out of all maternal age groups.

Figure 9. Birth Rate Adults (35-44 years old), 2016-2020, OASIS

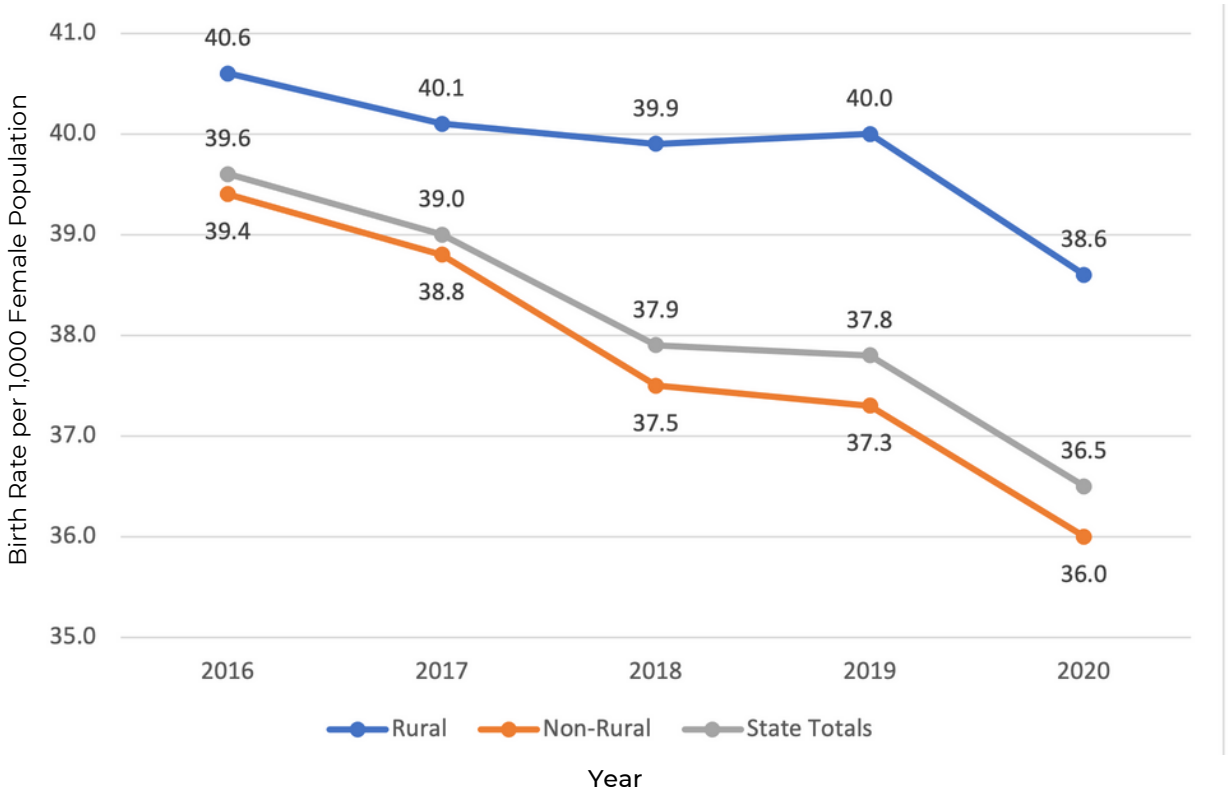


Graph depicts the birth rate trends among women of 35 - 44 years of age. There was a 0.3% increase in birth rates during 2019.

FETAL & INFANT HEALTH

PREMATURE BIRTHS

Figure 10. Premature birth rate of Rural and Non-Rural residences compared to Georgia's state averages, 2016-2020, *OASIS*



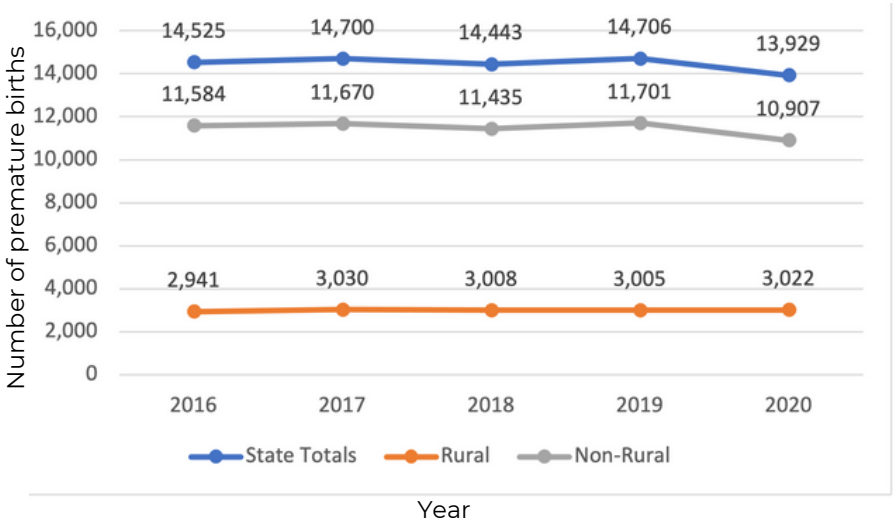
According to 2019 data from CDC and compared to national average, Georgia ranks 4th in low birth weight babies and 6th in preterm birth rate (11.7 compared to national average of 10.2 per 1000 live births).

Non-rural regions of the state have consistently reported lower premature birth rates when compared to rural regions and the overall state average. Low access to comprehensive maternal health care services is associated with high premature birth rates. Additionally, "rural residents are less likely to be insured through their jobs and more likely to be uninsured and have higher rates of poverty" (11).

FETAL & INFANT HEALTH

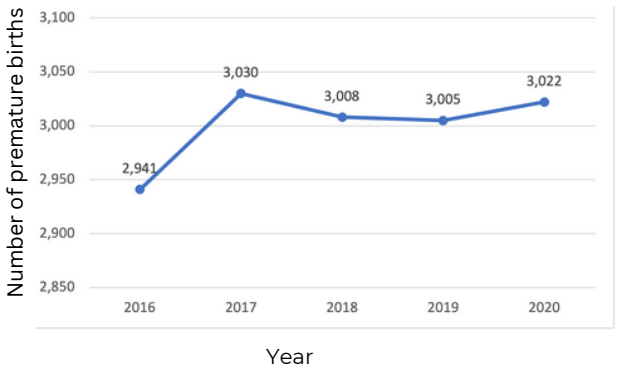
PREMATURE BIRTHS

Figure 11. Number of premature births in Rural and Non-Rural residences compared to Georgia's state averages, 2016-2020, *OASIS*



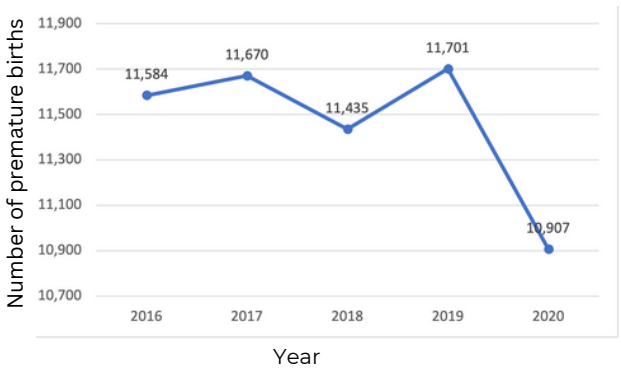
In rural regions of the state, premature births have been increasing since 2016. In 2020 alone, there were 81 more premature births then in 2016 as depicted in figure 11. However, in non-rural areas, there were 794 less premature births in 2020 compared to 2019. This was the greatest drop in premature births when compared to rural areas and the state.

Figure 12. Number of premature births in Rural Georgia, 2016-2020, *OASIS*



Number of premature births in rural parts of Georgia from 2016 to 2020.

Figure 13. Number of premature births in Non-Rural Georgia, 2016-2020, *OASIS*



The premature births in non-rural areas such as Atlanta have fluctuated from 2016 to 2019, with a sharp decline in 2020.

FETAL & INFANT HEALTH

PREMATURE BIRTHS

Table 2. Percent Premature Births by Demographics in Georgia, 2016-2020, *OASIS*

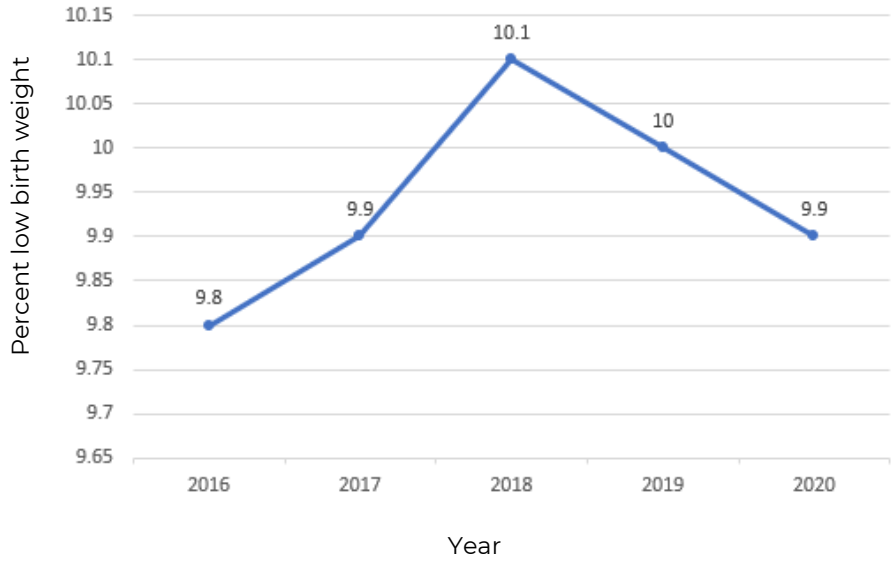
Demographics		2016	2017	2018	2019	2020
	Total Percent Premature Births	11.2	11.4	11.5	11.6	11.4
Race/Ethnicity						
	White (NH)	9.8	10	10	10	10
	Black/African American (NH)	14.1	14.2	14.5	14.7	14.4
	Hispanic or Latino	9.5	9.8	9.8	10.1	9.3
	Asian (NH)	8.1	8.9	8.3	9.3	8.1
	Other races (NH)	10.4	10.2	10.9	11.2	11.1
Education						
	Less than high-school	12.1	13.2	12.3	12.8	12.4
	High-school diploma/GED	12.1	11.9	12.3	12.3	12.1
	Some college or higher	10.4	10.6	10.8	11	10.7
Maternal Age						
	10-17 years	11.1	11.5	11.5	11.6	11.4
	18-24 years	11.2	10.8	10.8	11.1	10.9
	25-34 years	10.6	11	11.1	11.1	11
	35-44 years	13	13.5	13.6	14	13.3
	Over 45 years	23.4	21.7	22.1	26	21.8
Residence						
	Rural	11.5	12	12	12	12.5
	Non-rural	11.1	11.2	11.3	11.6	11.1

The premature births for non-Hispanic Black/African babies was 14.4% in 2020, which was highest amongst all races and ethnicities. Non-Hispanic Asians had the lowest percentage at 8.1%. (OASIS)

FETAL & INFANT HEALTH

LOWBIRTHWEIGHT BABIES

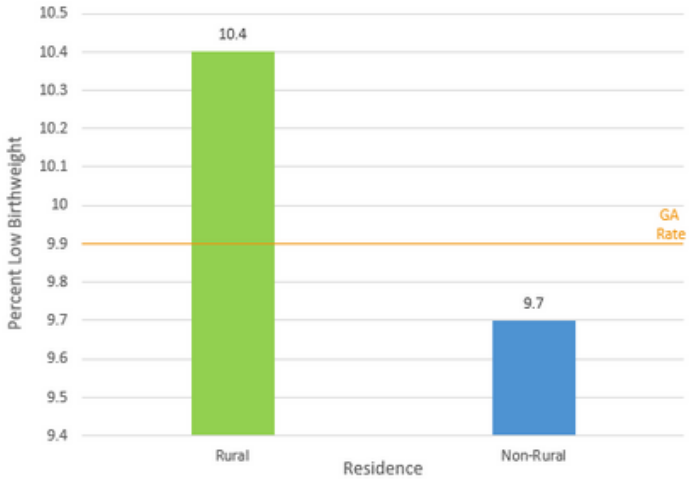
Figure 14. Percent of infants born with low birthweight in Georgia, 2016-2020, *OASIS*



Georgia has ranked among the **worst** states for low birth weight infants. In 2019, Georgia was ranked 47 out of 50 for infants born under 5 pounds (32).

The percent low birthweight was 9.8% in 2016 and was highest in 2018 with 10.1%. The percent low birthweight decreased to 9.9% in 2020, a 0.1% increase from 2016.

Figure 15. Percent of low birthweight infants by Rural and Non-rural residence in Georgia, 2020, *OASIS*



The percentage of low birthweights was higher in rural counties compared to non-rural counties, a difference of 0.7%.

FETAL & INFANT HEALTH

LOWBIRTHWEIGHT BABIES

Table 3. Percent Low Birthweight by Demographics, 2016-2020, *OASIS*

Demographics		2016	2017	2018	2019	2020
	Total Low Birthweight	9.8	9.9	10.1	10	9.9
Race/Ethnicity						
	White (NH)	7.3	7.4	7.3	7.2	7.2
	Black/African American (NH)	14.3	14.3	14.9	14.7	14.5
	Hispanic or Latino	7.3	7.1	7.3	7.7	6.9
	Asian (NH)	8.6	9.5	10	9.3	9.3
	Other races (NH)	9	9.3	9.7	9.3	9.8
Education						
	Less than high-school	11.1	11.3	11	11.5	10.9
	High-school diploma/GED	10.9	11.1	11.4	11.3	11
	Some college or higher	8.8	8.9	9.2	9	8.9
Maternal Age						
	10-17 years	12.1	10.9	11.2	12.9	12.6
	18-24 years	10.8	10.7	10.5	10.5	10.4
	25-34 years	8.9	9.3	9.6	9.4	9.2
	35-44 years	10.6	10.6	11.1	11.1	10.8
	Over 45 years	19.1	18.4	17.1	21.9	15.4
Residence						
	Rural	9.9	10.4	10.3	10.3	10.4
	Non-rural	9.8	9.8	10.1	10	9.7

Rural areas had a slight increase in percent low birthweight, from 9.9% in 2016 to 10.4% in 2020, but it has not changed much for non-rural areas. The percent low birthweight is lowest for mothers aged 25 to 34 (9.2% in 2020). The highest is for mothers over 45 years at 15.4% in 2020, followed by mothers aged 10 to 17, which was 12.6% in 2020. The percent low birthweight was similar for mothers with a less than high-school education and for those that had some high-school diploma/GED. The percentage low birthweight was lowest for those that had some college or higher. These rates were consistent from 2016 to 2020. For race and ethnicity, non-Hispanic Black/African babies had the highest percentage of low birthweight, with 14.5% in 2020. Non-Hispanic Asians and other non-Hispanic races were close behind, with 9.3% and 9.8% respectively, in 2020. The lowest percentages were for those that were non-Hispanic Whites and Hispanic or Latino. The percentage of low birthweight has increased from 2016 to 2020 for non-Hispanic Asian and other non-Hispanic races.

FETAL & INFANT HEALTH

LOWBIRTHWEIGHT BABIES

Table 4. Percent of Low Birthweight Babies in Georgia by Perinatal Region, 2016-2020, *OASIS*

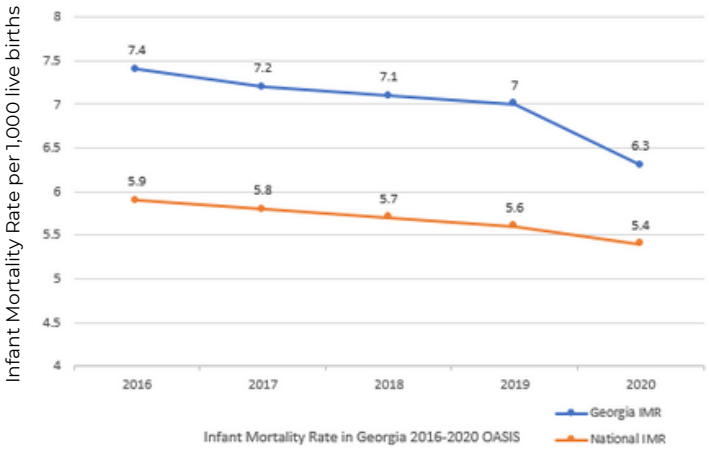
Perinatal Region	2016	2017	2018	2019	2020
Albany	12.2	12	12	12.3	12.2
Atlanta	9.4	9.4	9.7	9.5	9.3
Columbus	10	10.7	11	10.4	11
Regions Summary	9.7	9.7	10	9.8	9.7
Georgia	9.8	9.9	10.1	10	9.9

The percent low birthweight is highest in the Albany perinatal region and has remained the same from 2016 to 2020. The Atlanta perinatal region has the lowest percent low birthweights in comparison to the other perinatal regions and Georgia as a whole. The Columbus perinatal region had a 1% increase of percent low birthweights, from 10% in 2016 to 11% in 2020.

FETAL & INFANT HEALTH

INFANT MORTALITY

Figure 16. Georgia Infant Mortality Rate vs. National Infant Mortality Rate, 2016-2020



*Georgia-level data obtained from OASIS
*National-level data obtained from CDC

The infant mortality rate (IMR) in Georgia has had a slight decrease from 7.4 infant deaths per 1,000 live births in 2016 to 6.3 in 2020. The Healthy People 2030 target for IMR nationwide is 5.0. Georgia continues to trend high above that target rate, with the most common causes of infant mortality being prematurity, birth defects, and sudden infant death syndrome (SIDS) (12).

Table 5. Percent of Infant Mortality by Cause, 2016-2020, *OASIS*

Cause of death	2016	2017	2018	2019	2020
Prematurity	23.3	21	22	22.1	16.2
Lack of oxygen to the fetus	2.3	2.3	2.8	2.6	1.7
Respiratory Distress Syndrome (RDS)	2	2	2.4	1.1	2.3
Birth-related infection	3.5	3.8	4	3.5	4.2
Birth defects	17.8	18	18.2	17.1	19.8
Suddent Infant Death Syndrome (SIDS)	10.1	11.7	11.7	11.7	13.9
External causes	5.7	7.7	6.1	6.2	7.5

FETAL & INFANT HEALTH

INFANT MORTALITY

Table 6. Number of Infant Deaths by Race, Sex, and Residential Status, 2016-2020, *OASIS*

Demographics		2016	2017	2018	2019	2020
	Number of Infant Deaths	962	932	891	887	771
	Total Infant Mortality Rate	7.4	7.2	7.1	7	6.3
Race/Ethnicity						
	White (NH)	5.4	4.9	5	5.2	5.1
	Black/African American (NH)	11.8	11.7	11.8	10.7	9.6
	Hispanic or Latino	6.3	5.1	4.4	5.4	4.1
	Asian (NH)	3.5	4.1	2.1	3.2	2.2
	Other races (NH)	1.7	7	3.9	4.8	2.7
Infant's sex at birth						
	Male	7.7	7.3	7.5	7.5	6.5
	Female	7.1	7.2	6.7	6.6	6.1
Residence						
	Rural	7.4	7.7	7.1	6.7	7.4
	Non-rural	7.4	7.1	7.1	7.1	6

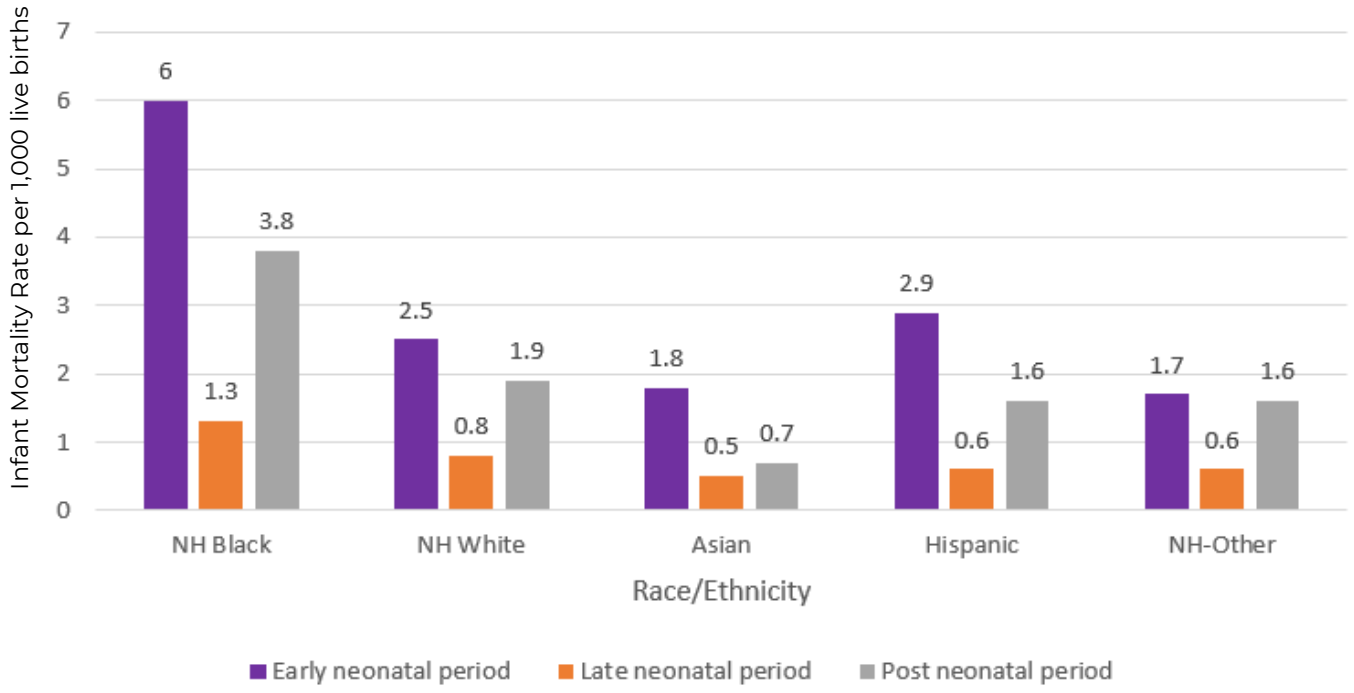
- NH: Non-Hispanic
- Data for Hispanic or Latino mothers in Georgia may be unreliable due to underreporting in census data or over-reporting of birth certificates.
- Other races includes American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, multiracial, or unknown.

The infant mortality rate has decreased for all races and ethnicities except for other non-Hispanic races. The rural and non-rural rates started out the same on 2016, but by 2020, the infant mortality rate in rural areas was slightly higher.

FETAL & INFANT HEALTH

INFANT MORTALITY

Figure 17. Rate of Infant Mortality by Neonatal Period & Race/Ethnicity, 2016-2020, OASIS & Georgia Department of Public Health



- Early Neonatal Period: Birth up to 6 days of age
- Late Neonatal Period: 7-27 days of age after birth
- Post Neonatal Period: 28-364 days of age after birth

The rate of infant mortality (IMR) throughout the early, late, and post neonatal period is highest among non-Hispanic Black populations when compared to other races and ethnicities. According to the CDC, the **top four leading causes of death include low-birthweight, congenital malformations, maternal complications, and sudden infant death syndrome** (12). The overall infant mortality rate has declined in the United States, but racial disparities have continued to contribute to the high rate of IMR among minority populations such as Black and African Americans. Social determinants of health such as experiences of racial discrimination, low social economic status, lack of medical insurance, and treatment at low-quality hospitals demonstrate a strong correlation with high mortality rates (13). Studies have also reported that experiences of racism are associated with increased adverse birth outcomes including low birth weight and preterm delivery by three-fold among Black families (13). Furthermore, "experiences of racism in the 12 months before delivery was significantly associated with greater odds of preterm birth" (14).

FETAL & INFANT HEALTH

INFANT MORTALITY

In 2020, the IMR was ***highest*** for non-Hispanic Black/African babies at 9.6 infant deaths per 1,000 live births, which is almost double that for non-Hispanic Whites. The rate is lowest for non-Hispanic Asians at 2.2 infant deaths per 1,000 live births.

Figure 18. Infant Mortality Rate in Georgia by Race/Ethnicity, 2020, *OASIS*

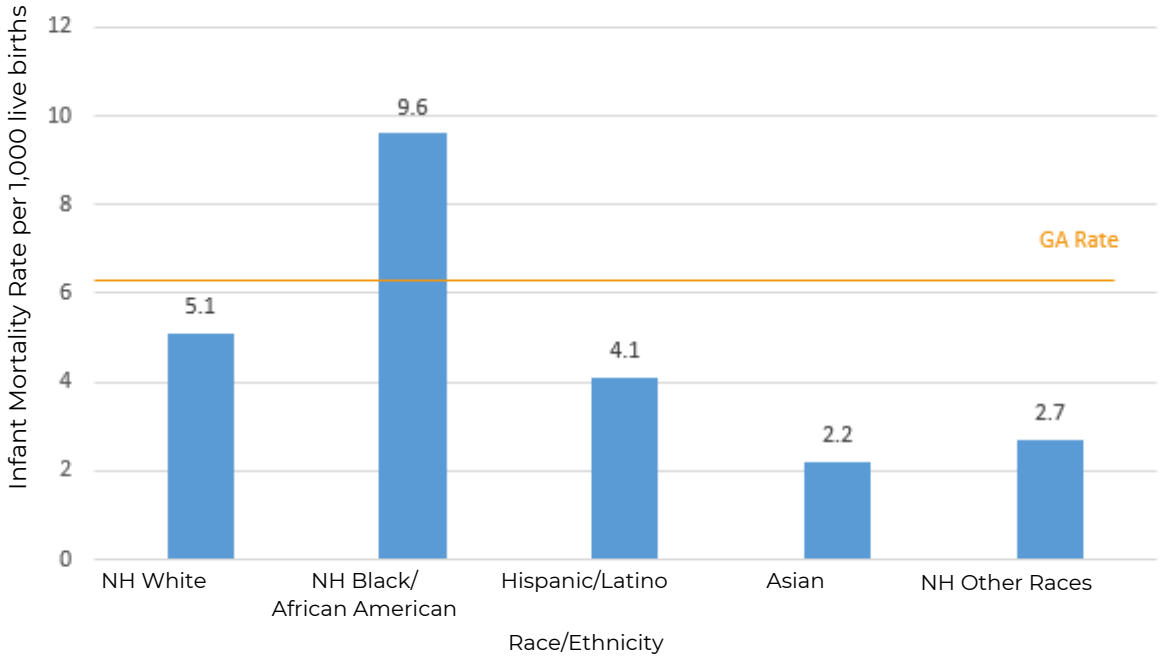
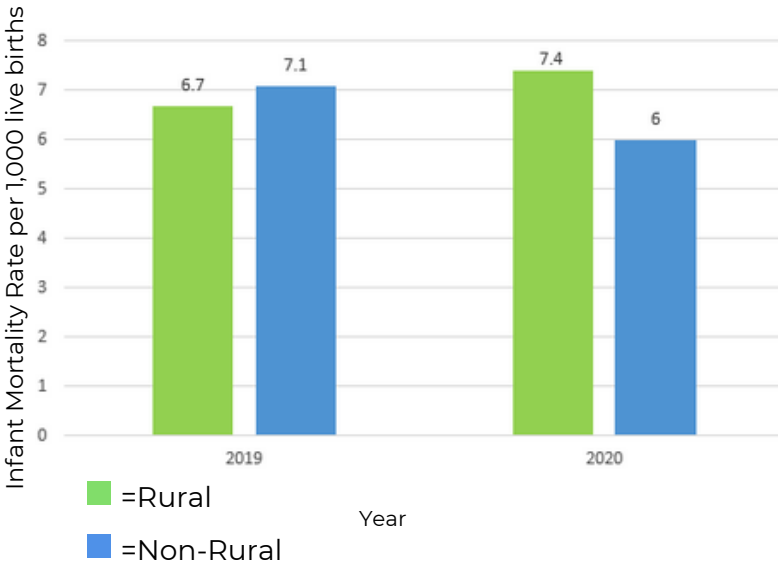


Figure 19. Infant Mortality Rate by Rural and Non-Rural Georgia, 2019-2020, *OASIS*



The IMR for non-rural areas was higher in 2019 with 7.1 infant deaths per 1,000 live births. In 2020, the rural areas had a higher IMR with 7.1 infant deaths per 1,000 live births. The rate for non-rural areas had a sharp decrease to 6 deaths per 1,000 live births.

FETAL & INFANT HEALTH

INFANT MORTALITY

Figure 20. Overall Infant Mortality Rate by Public Health District, 2019-2021

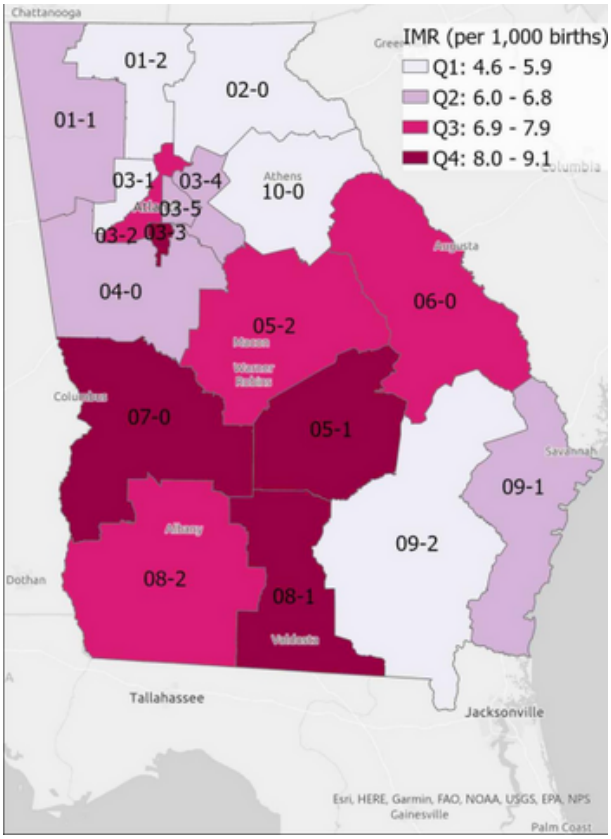
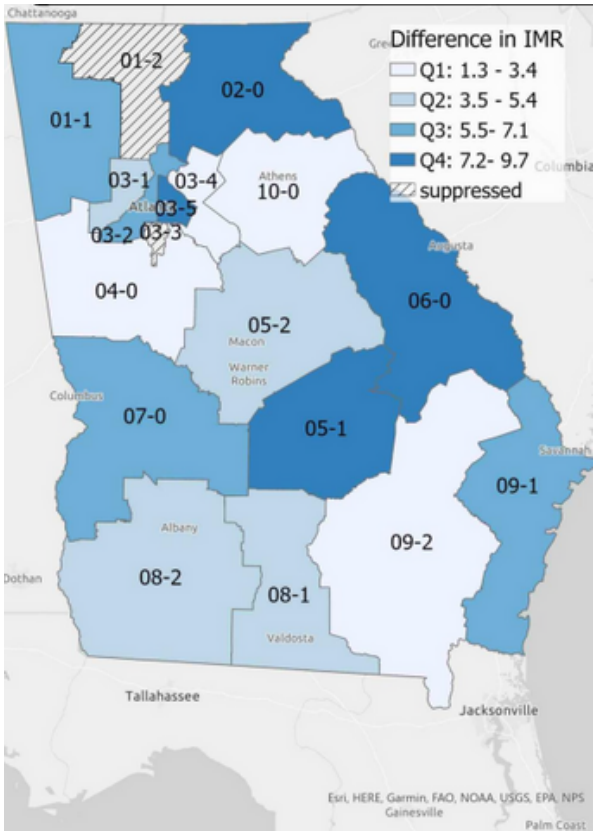


Figure 21. Difference Between Non-Hispanic Black and Non-Hispanic White in Infant Mortality Rate by Public Health District, 2019-2021



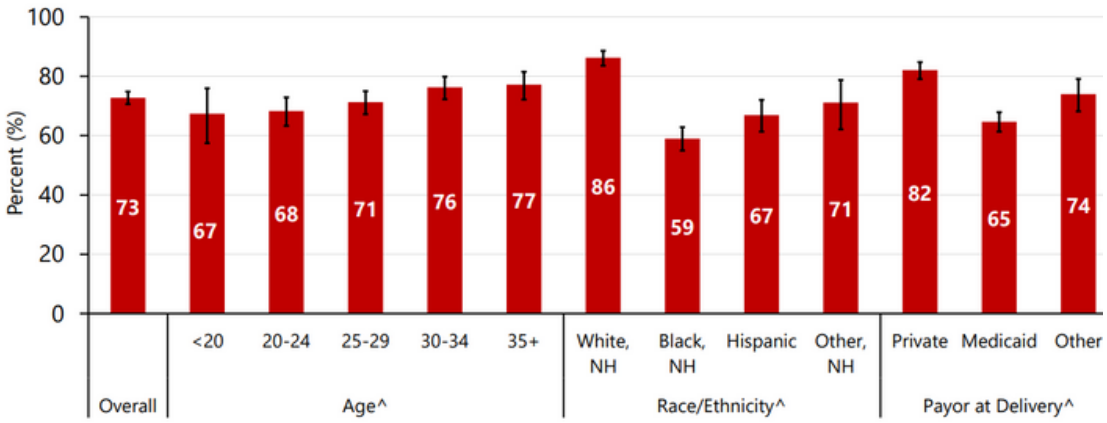
Data contributed by the Georgia Department of Public Health

The public health districts with the highest overall infant mortality rate (IMR) are those in southern Georgia, particularly in the Albany, Columbus, and Macon perinatal regions. The public health districts with the highest IMR disparity based on race are in the middle and eastern regions of Georgia. As well as the northwestern parts of the state in Atlanta, Augusta, and Macon perinatal regions.

FETAL & INFANT HEALTH

INFANT MORTALITY

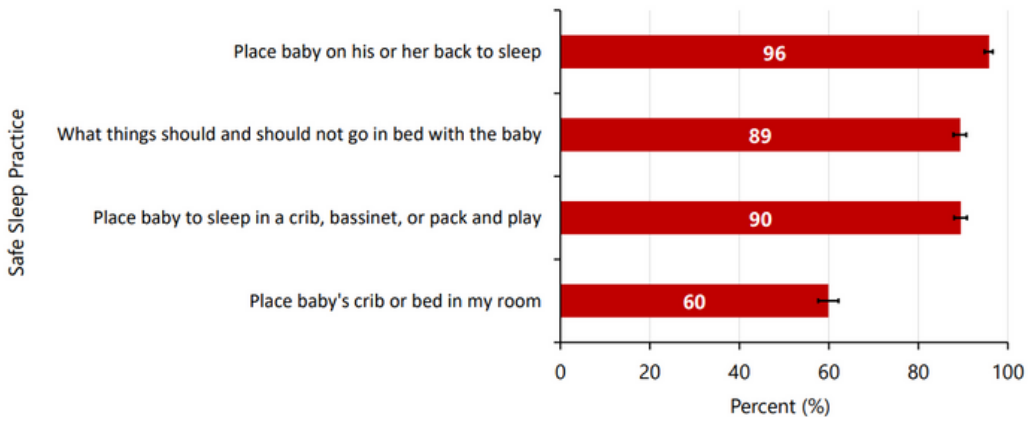
Figure 22. Percent of women who reported most often placing their infant to sleep on their back by demographic characteristics in Georgia, 2017-2020, *Georgia PRAMS*



Infant safe sleep practices include "eliminating hazards such as blankets, pillows, bumper pads, and softy toys out of the sleeping area" (15). Health providers also recommend placing babies on their back for even sleep and utilize firm sleep surfaces such as a mattress in a crib. According to the Georgia Department of Public Health, 96% of women reported that a healthcare provider told them to place their babies on their backs for sleep. **However, women with private insurance were more likely to follow this practice than those on Medicaid.**

There are 3,500 sleep-related deaths among US babies every year (15).

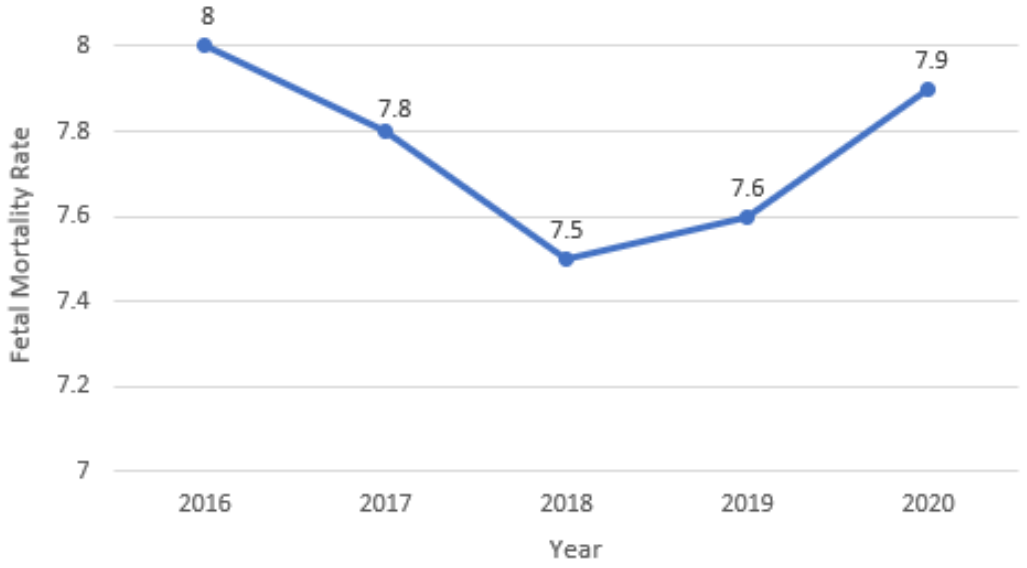
Figure 23. Percent of women who reported that a health care provider told them about safe sleep practices in Georgia, 2017-2020, *Georgia PRAMS*



FETAL & INFANT HEALTH

FETAL MORTALITY

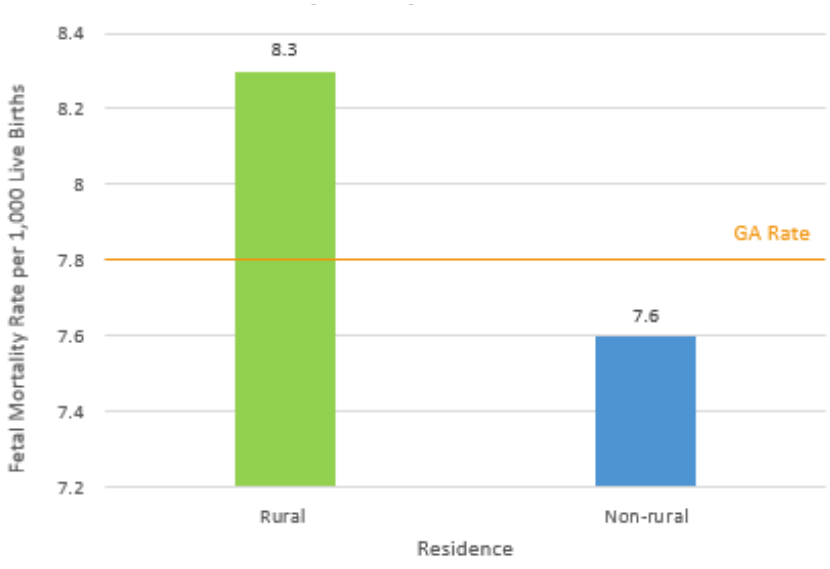
Figure 24. Fetal Mortality Rate in Georgia, 2016-2020, *OASIS*



MITIGATION STRATEGIES

- Addressing preterm birth and low birth weight rates
- Increasing access to quality prenatal and postpartum care
- Creating a safe infant sleep environment
- Increase coverage of midwife-delivered interventions. (16)

Figure 25. Fetal Mortality Rate in Georgia by Rural and Non-Rural residence, 2016-2020, *OASIS*



FETAL & INFANT HEALTH

FETAL MORTALITY

The fetal mortality rate (FMR) has slightly decreased since 2016 in Georgia. FMR is highest in Black or African Americans, with a rate of 11.9 infants in 2020. The non-Hispanic Whites and Asians have the lowest FMR rates. Overall, non-Hispanic White, Hispanic/Latino, and other non-Hispanic races have seen a slight increase in FMR. For maternal age, the highest rate is seen in mothers over 45 years with a rate of 27.7 infants in 2018, which is more than double or triple the rates for other maternal age groups. The second highest FMR is seen in mothers between the ages 10 and 17 years. The lowest FMR is seen in mothers ages 25 to 34 years. For residence, the FMR rate has increased in rural regions from 2016 to 2020. For non-rural regions, the FMR has decreased over these years.

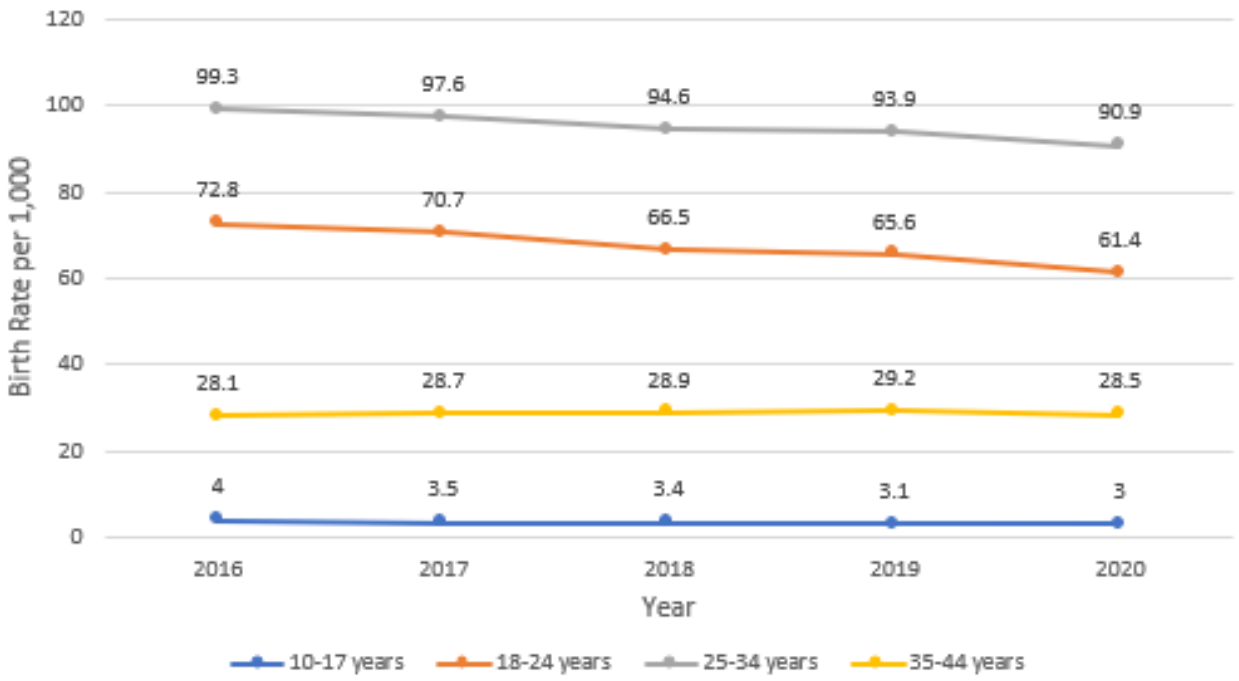
Table 7. Fetal Mortality Rate by Demographics in Georgia, 2016-2020, *OASIS*

Demographics		2016	2017	2018	2019	2020
	Total Fetal Mortality Rate	8	7.8	7.5	7.6	7.9
Race/Ethnicity						
	White (NH)	5.3	5.2	5	5.2	5.6
	Black/African American (NH)	12.1	11.5	11.2	11.1	11.9
	Hispanic or Latino	6.3	5.9	5.5	5.4	5.6
	Asian (NH)	5.2	4.6	4.6	5.3	4.7
	Other races (NH)	6.1	7.3	5.3	8.9	6.8
Maternal Age						
	10-17 years	11.4	11	7.6	11	15.9
	18-24 years	8.1	7.6	7.5	8.2	8.3
	25-34 years	7.4	7.3	6.9	6.6	7.2
	35-44 years	9.6	9.5	9.6	9.5	9.2
	Over 45 years	19.4	19.4	27.7	N/A	N/A
Residence						
	Rural	8.3	8.8	7.4	7.9	9
	Non-rural	8	7.5	7.6	7.5	7.7

MATERNAL HEALTH

MATERNAL AGE TRENDS

Figure 26. Birth Rate Trend by Maternal Age Group, 2016-2020, *OASIS*



Birth rate has decreased from 4 to 3 births per 1,000 in 2020 among those aged 10 to 17 years.

Birth rates have declined among Georgia women between 18 to 24 years of age.

Birth rates have declined among Georgia women ages 25 to 34 years.

Birth rate for women ages 35 to 44 years increased between 2017 to 2019, but declined in 2020.

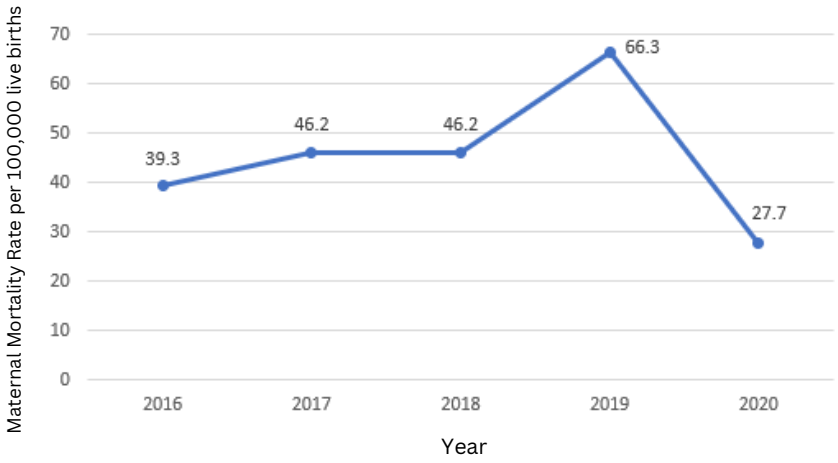
MATERNAL HEALTH

MATERNAL MORTALITY

What is Maternal Mortality?

The World Health Organization (WHO) defines maternal mortality as the annual number of female deaths from any cause related to or aggravated by pregnancy and childbirth or within 42 days of termination of pregnancy, respective of the duration and site of pregnancy (17). When compared to the WHO global rankings, the US ranks 55th and has the highest maternal mortality rate among high-income countries (18). Based on the most recent data, Georgia's maternal mortality rate is 48.4 deaths per 100,000 live births. **Georgia currently ranks 49th for having the second highest maternal mortality rate in the country** (19). Healthy People 2030 reports that the status of maternal mortality is getting worse and that "persistent disparities by race/ethnicity are contributing to this status"(20).

Figure 27. Maternal Mortality Rate in Georgia, 2016-2020, *America's Health Rankings*



The total maternal mortality rate increased steadily over the years from 2016 to 2018, from 39.3 per 100,000 live births to 46.2 per 100,000, then jumped sharply to 66.3 per 100,000 in 2019, before declining rapidly to 27.7 per 100,000 in 2020.

Contributing Factors

- Pre-pregnancy health conditions
  - Cardiovascular disease
  - Obesity
  - A compromised immune system
  - Asthma
  - Hypertension
  - Diabetes
- Lack of access to quality care
- Racial, ethnic, and economic disparities (21)

Prevention Strategies

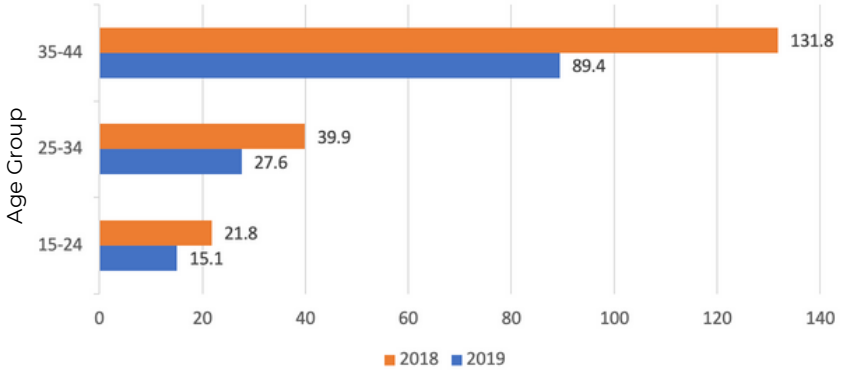
- Eliminate racial and ethnic disparities in maternal mortality
- Ensure quality care for all pregnant and postpartum persons
- Identification of barriers that limit access to quality maternal health services
- Increase reproductive health literacy
- Strengthen maternal mortality data (22)

MATERNAL HEALTH

MATERNAL MORTALITY

Maternal mortality rates are **highest** for mothers aged 35-44 and lowest for mothers aged 15-24. Between the years 2018 and 2019, maternal mortality rates ***decreased*** slightly for all ages.

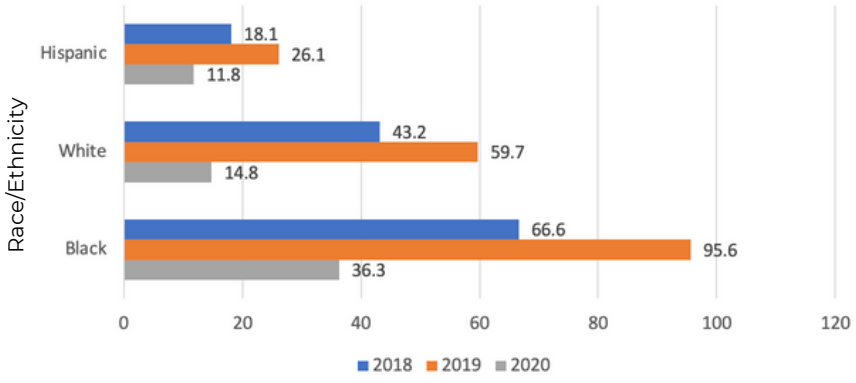
Figure 28. Georgia Maternal Mortality Rate by Age Group, 2018-2019, America's Health Rankings



Maternal Mortality Rate per 100,000 live births

Each year, the highest maternal mortality rates was among Black women, followed by White women, and then Hispanic women. Maternal mortality rates across races increased from 2018 to 2019 before decreasing across races in 2020.

Figure 29. Georgia Maternal Mortality Rate by Race/Ethnicity, 2018-2020, America's Health Rankings



Maternal Mortality Rate per 100,000 live births

The American College of Obstetricians and Gynecologists affirms that social determinants of health including systematic racism are responsible for a large proportion of health inequities that exist in the U.S., including maternal mortality (23).

MATERNAL HEALTH

MATERNAL MORBIDITY

Maternal morbidity is defined as the number of instances in which the mother experienced admission to the ICU, a ruptured uterus, a transfusion, and/or an unplanned hysterectomy per 1,000 births (7). Severe maternal morbidity occurs when those unexpected outcomes from labor and delivery result in significant short or long-term consequences to the mother's health (7).

1 in 7 privately-insured women first develop severe complications after delivery discharge

1 in 6 Medicaid-insured women first develop severe complications after delivery discharge

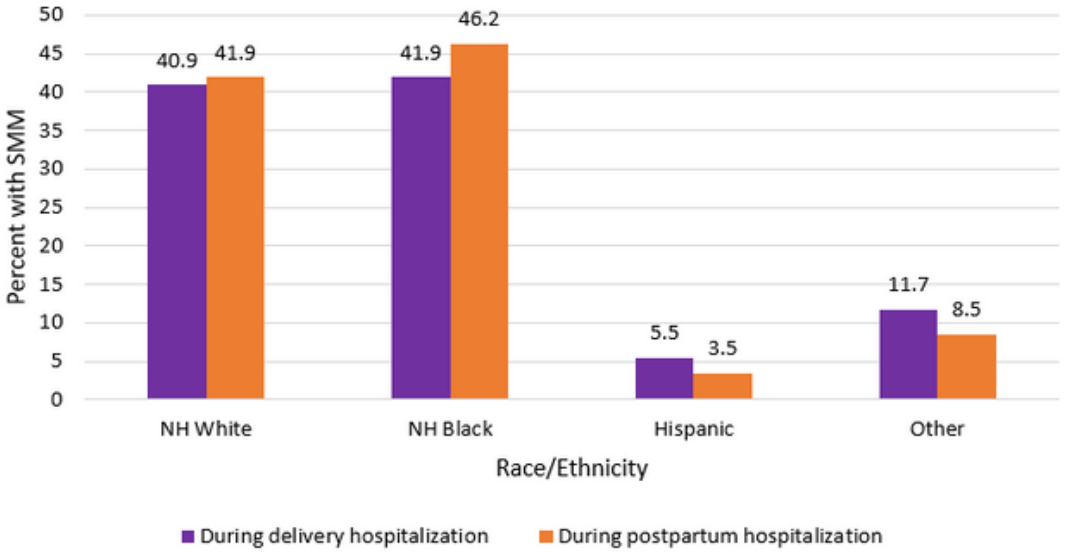
Most common severe maternal morbidity indicators after delivery discharge:

- Blood transfusion
- Air and thrombotic embolism
- Pulmonary edema/Acute heart failure
- Eclampsia
- Sepsis
- Puerperal cerebrovascular disorders
- Adult respiratory distress syndrome
- Acute renal failure

MATERNAL HEALTH

MATERNAL MORBIDITY

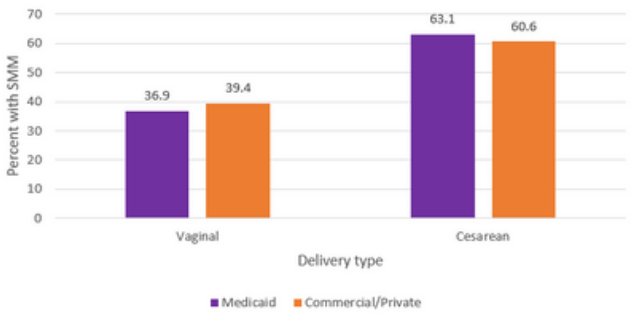
Figure 30. Severe maternal morbidity by race/ethnicity during delivery and postpartum hospitalization, 2010-2014



Chian et al., 2021

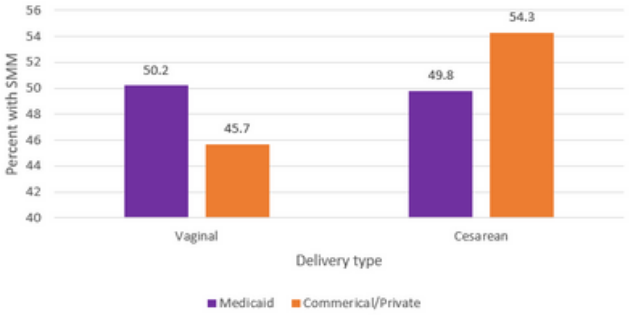
For every maternal death, **it is estimated that 50 to 100 women experience severe maternal morbidity (SMM),** which is defined as life-threatening complications without timely identification and proper management that may be associated with deaths (24). Indicators of SMM include acute myocardial infraction, acute renal failure, and even aneurysms. Risk factors for SMM consist of preexisting chronic medical conditions and pre-pregnancy obesity (24). It is critical for healthcare providers to provide guidelines to help standardize postpartum care with ongoing monitoring to prevent SMM (24).

Figure 31. Percent with severe maternal morbidity during delivery hospitalization by delivery type and insurance, 2010-2014



Chian et al., 2021

Figure 32. Percent with severe maternal morbidity during postpartum hospitalization by delivery type and insurance, 2010-2014



Chian et al., 2021

*Data for SMM was only available up to 2014

MATERNAL HEALTH

DELIVERY TYPE

Figure 33. Delivery type by Race/Ethnicity in Georgia , 2016-2020, *CDC Wonder*

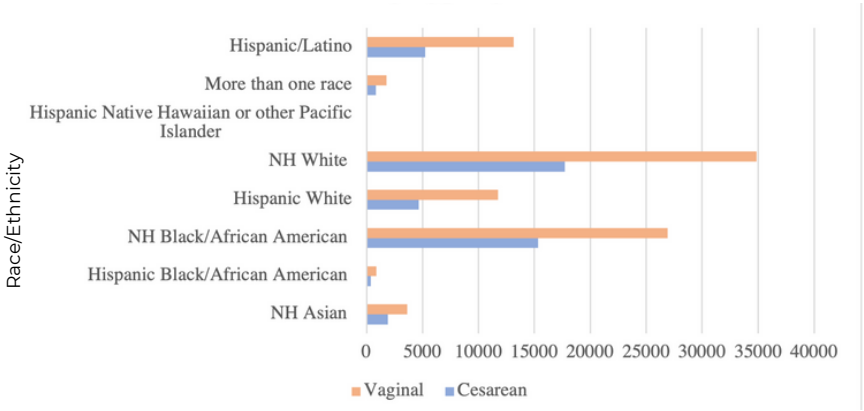


Figure 34. Delivery Type by Maternal Age Group in Georgia, 2016-2020, *CDC Wonder*

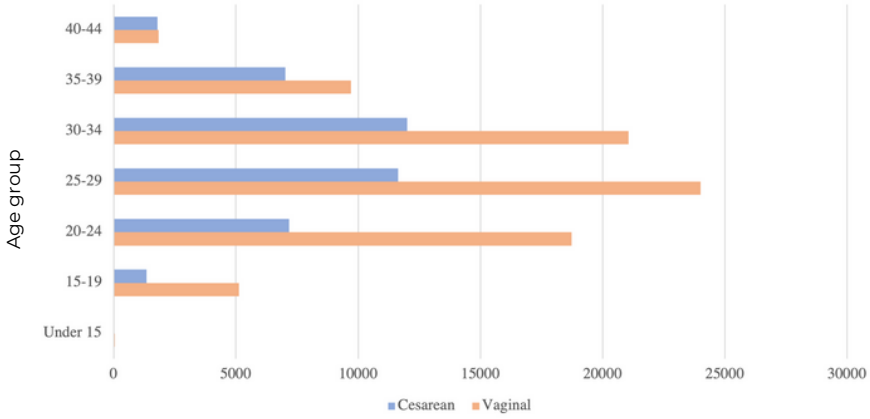
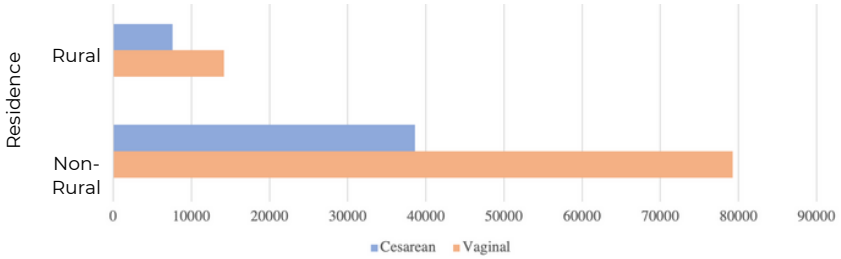


Figure 35. Delivery Type by Rural and Non-Rural residence in Georgia, 2016-2020, *CDC Wonder*



Cesarean section births are about **half as common** as vaginal births for both urban and rural mothers.

As maternal age increases, so does the percentage of births performed via Cesarean section. This can be seen in comparing the 15-19 and 40-44 age groups, where mothers aged 15-19 have a **20% or less chance of Cesarean section compared to vaginal births versus mothers aged 40-44 have about a 50% chance of Cesarean section.**

Out of every racial category, there is a **higher likelihood of non-Hispanic white mothers and non-Hispanic Black mothers having Cesarean sections than any other category**, with non-Hispanic Black mothers slightly more likely, at over one-third of live births, than non-Hispanic white mothers and every other racial category.

MATERNAL HEALTH

MATERNAL OBESITY

Definition: Maternal obesity is defined as a BMI ≥30 kg/m2, and maternal overweight is defined as a BMI between 25 and 29.9 kg/m2.2 Maternal obesity is further stratified into classes: class I (BMI 30–34.9), class II (BMI 35–39.9), and class III (BMI ≥40) (25).

Obesity during pregnancy is associated with severe adverse health outcomes for both mother and baby.

ADVERSE MATERNAL OUTCOMES

Increased Risk of Miscarriage
Risk of Gestational Diabetes
Pregnancy-associated Hypertension
Pre-term Birth
Prolonged Labor
Preeclampsia
(26)

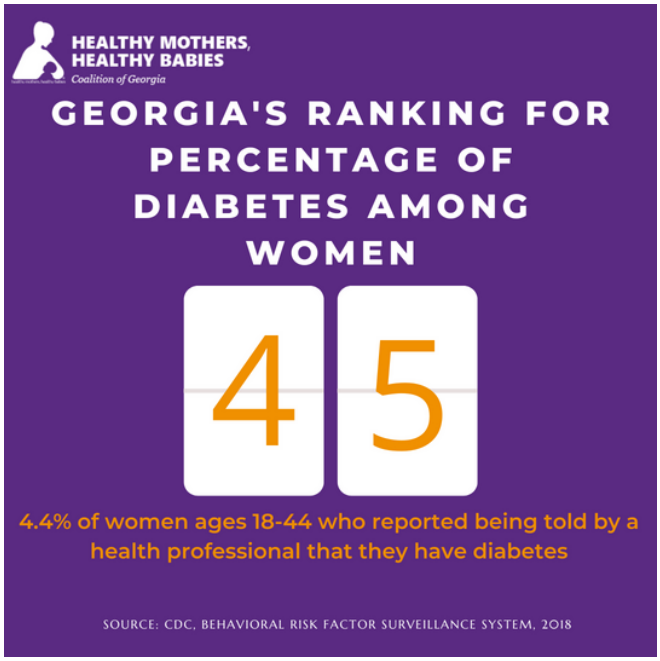
ADVERSE FETAL OUTCOMES

Risk for Stillbirth
Congenital Anomalies
Macrosomia
Shoulder Dystocia
Increased Risk of Infant Mortality
Predisposition to Obesity later in life
(27)

Maternal obesity increases the risk for poor maternal and neonatal outcomes. Maternal obesity impairs healthy heart function and development of the fetus. Obesity can cause molecular changes in the fetus which can alter expression of genes related to nutrient metabolism, which greatly increases offspring's chance of developing cardiac problems later in life (28). Healthy People 2030 set a goal of having at least 47% of females giving live births be at a healthy weight prior to pregnancy. In 2018, 42.1% of females giving live birth were at a healthy weight prior to becoming pregnant. **Unfortunately, in 2020 we saw a decline in that number and only 40% of females were at a healthy weight (30).** Between 2018 and 2020, over half of women aged 15-19 were at a healthy weight prior to pregnancy, while only 38-40% of women aged 25-29 were at a healthy weight before becoming pregnant (30). For women outside of the United States, Healthy People 2030 reports that 43-46% of females were at a healthy weight prior to pregnancy (30).

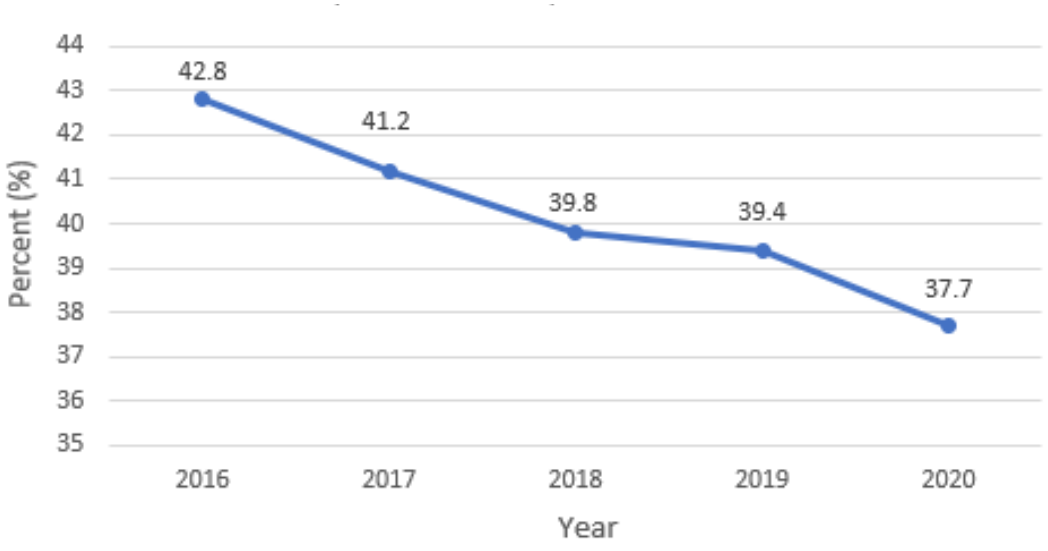
MATERNAL HEALTH

GESTATIONAL DIABETES & PRE-PREGNANCY WEIGHT



The percentage of women with a health pre-pregnancy weight of a BMI between 18.5 and 24.9 has declined over the last 5 years. A high pre-pregnancy weight can increase the risk for developing gestational diabetes. Gestational diabetes occurs when the mother's body cannot make enough insulin during pregnancy (30) Gestational diabetes can also increase the risk of experiencing high blood pressure during pregnancy and the likelihood of needed a cesarean section for delivery (30).

Figure 36. Percent of women with a healthy pre-pregnancy weight (BMI of 18.5-24.9), 2016-2020, *Georgia Department of Public Health*

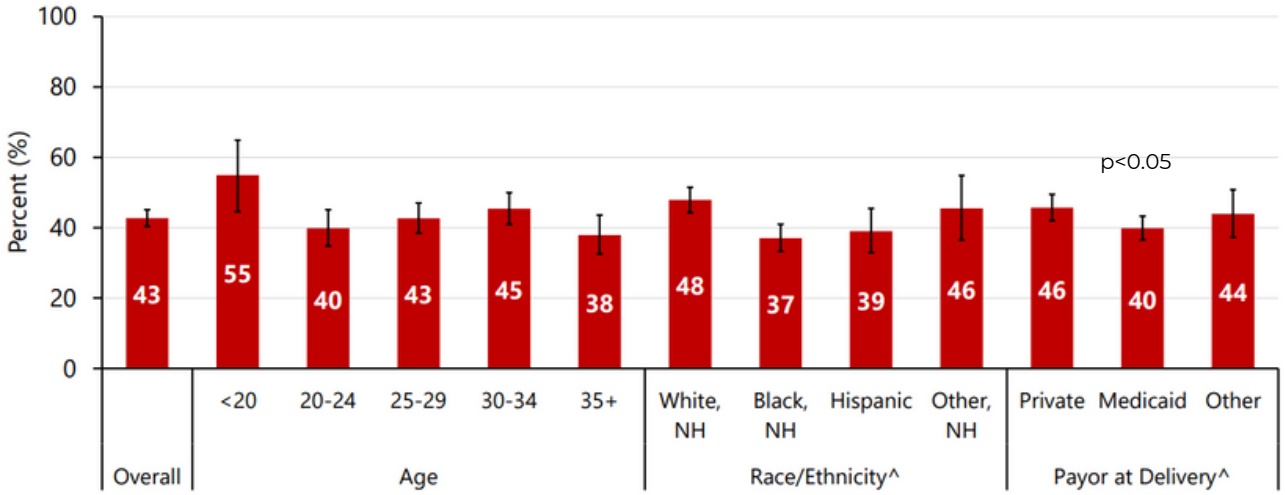


50% of women with gestational diabetes can go on to develop type 2 diabetes (30).

MATERNAL HEALTH

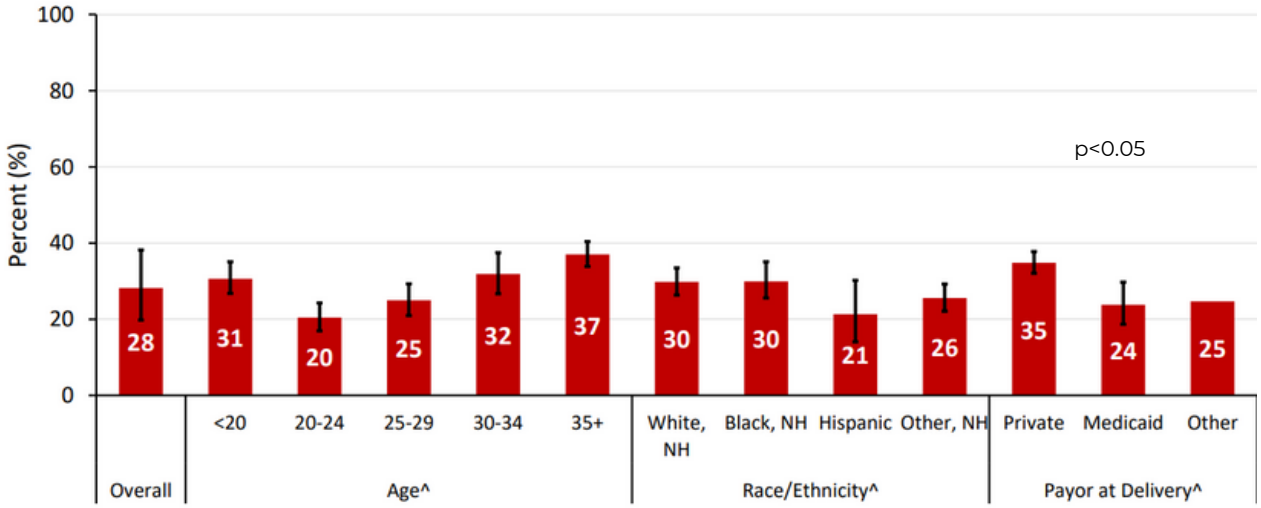
GESTATIONAL DIABETES & PRE-PREGNANCY WEIGHT

Figure 37. Percent of women with a healthy pre-pregnancy weight (BMI of 18.5-24.9) by Demographic, 2017-2020, *GA PRAMS*



Women aged 20 years or younger were more likely to be at a healthier pre-pregnancy weight when compared to all other age groups. The Georgia Department of Public reports that on average, 28% of women received guidance from their health provider on maintaining a healthy weight in the 12 months prior to pregnancy.

Figure 38. Percent of women reporting that a health care provider discussed maintaining a healthy weight in the 12-months prior to pregnancy by demographic, 2017-2020, *GA PRAMS*



MATERNAL HEALTH

MATERNAL DISEASE: STI

For pregnant women, having a STD can increase chances of premature labor and infection of the uterus after birth. These STDs are curable by antibiotics that are safe to take during pregnancy, so it's important to get screened regularly to begin treatment on time. There is a risk of infection being passed to the baby if STDs are not treated. For pregnant women with syphilis, the bacteria can cross the placenta and infect the baby in the womb (31). Gonorrhea and chlamydia can be passed down to the baby when giving vaginal delivery. Having these STDs during pregnancy can increase risk for miscarriages, premature birth and low birth weight, stillbirth, and premature rupture of membranes (31).

GA IS RANKED #6 IN THE NATION FOR CHLAMYDIA, WHICH CONTINUES TO HAVE THE HIGHEST CASES COMPARED TO OTHER STIS/STDS.

GA IS RANKED #16 IN THE NATION FOR GONORRHEA, WHICH IS THE SECOND MOST COMMON TYPE OF STI/STD.

GA IS RANKED #9 IN THE NATION FOR SYPHILIS

GA IS RANKED #12 IN THE NATION FOR CONGENITAL SYPHILIS

CDC Recommendations

First & Third Trimester: Screen all pregnant women <25 years of age and older for the following:

- Chlamydia
- Gonorrhea
- Syphilis
- HIV
- Hepatitis B (HBV)
- Hepatitis C (HCV)

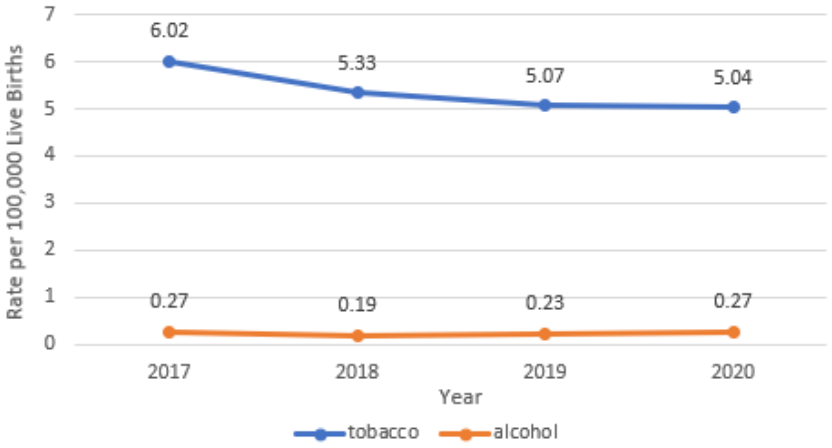
(31).

MATERNAL HEALTH

MATERNAL SUBSTANCE USE

The rate of maternal tobacco use decreased between the years 2017 and 2020 from 6.02 per 100,000 live births to 5.04 per 100,000. The rate of maternal alcohol use decreased slightly in the years 2018 and 2019 but then increased back to 0.27 per 100,000.

Figure 39. Rate of Maternal Drug and Alcohol Use in Georgia 2017-2020, *OASIS*



Georgia ranked 11th for smoking during pregnancy in 2021 Health Rankings (32)

***Percent Births with Reported Alcohol and Tobacco Use in Georgia 2017-2020* (OASIS):** The percentage of births with reported tobacco use is higher than alcohol use. Births with tobacco use decreased by 0.5% from 2017 to 2018, and has stayed constant to 2020. The percentage of births with reported alcohol use has remained at 0.2 percent.

MATERNAL HEALTH

PERINATAL MOOD & ANXIETY DISORDERS

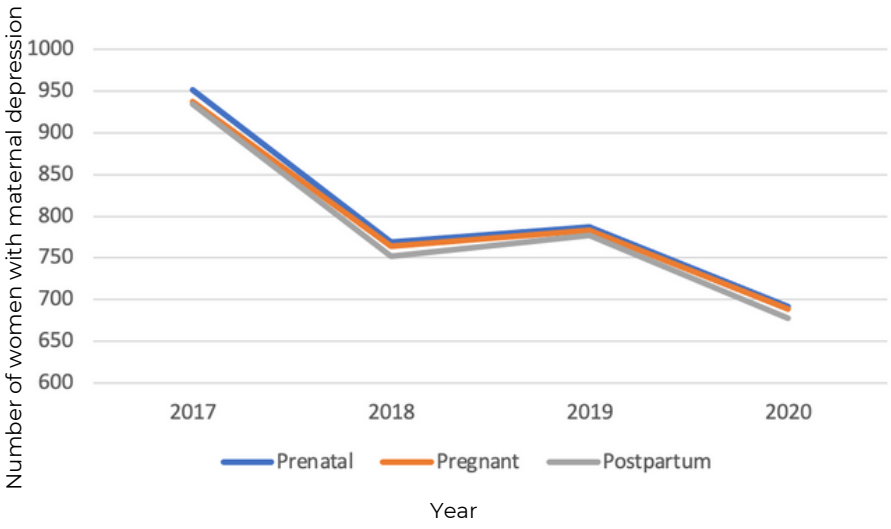
Perinatal Mood and Anxiety disorders is defined as a mood disorder that can affect women during pregnancy and childbirth. Perinatal mood and anxiety disorders can affect any mother regardless of age, race, income, culture, or education (33). It is a medical illness that is caused by genetic and environmental factors. For example, "life stress, the physical and emotional demands of childbearing and caring for a new baby, and changes in hormones that occur during and after pregnancy" (33). Perinatal anxiety symptoms can include **panic attacks, hyperventilation, excessive worry, and restless sleep(34).**

Additional Symptoms

- Having a lasting sad, anxious, "empty" mood
- Feelings of hopelessness or pessimism
- Feelings of guilt, worthlessness, or helplessness
- Loss of energy
- Diminished interest in being a mother
- Overeating or loss of appetite
- Suicidal thoughts or suicide attempts
- Trouble focusing or making decisions

(34).

Figure 40. Number of Women with Maternal Depression by Stage of Pregnancy, 2017-2020, GA PRAMS



The frequency of self-reported depression by prenatal, pregnant, and postpartum mothers through the years 2017 to 2020 is illustrated in figure 40. Maternal depression decreased between the prenatal period and the postpartum period in each year.

MATERNAL HEALTH

INTIMATE PARTNER VIOLENCE

Intimate partner violence (IPV) is defined as abuse or aggression by a current or former spouse or partner (35). In the United States, an estimated one in four women experience IPV in their lifetime1 and an estimated 2% of women with a recent live birth reported physical violence from an intimate partner during pregnancy (36). IPV is associated with a multitude of negative maternal and neonatal outcomes, from reduced access to prenatal care and increased prevalence of maternal depression and substance use to low birth weight and preterm birth (35). This fact sheet describes the prevalence of IPV among women around the time of pregnancy in Georgia and provides resources to providers for screening for and preventing IPV among all women (35).

1 IN 3 HOMICIDES AMONG WOMEN WERE IPV-RELATED.

AT LEAST 1 IN 15 IPV-RELATED HOMICIDES WERE AMONG PREGNANT WOMEN.

GEORGIA VIOLENT DEATH REPORTING SYSTEM (GA-VDRS), 2011-2017

69% of Homicide were committed by current or former intimate partners (35).
82% were preventable (35).

IPV AMONG GEORGIA WOMEN WITH A RECENT LIVE BIRTH:

2.4% REPORTED ABUSE* BEFORE PREGNANCY

1.8% REPORTED ABUSE* DURING PREGNANCY

2.8% REPORTED ABUSE* AT ANY TIME AROUND PREGNANCY

GA PRAMS, 2017-2019

ACCESS TO CARE

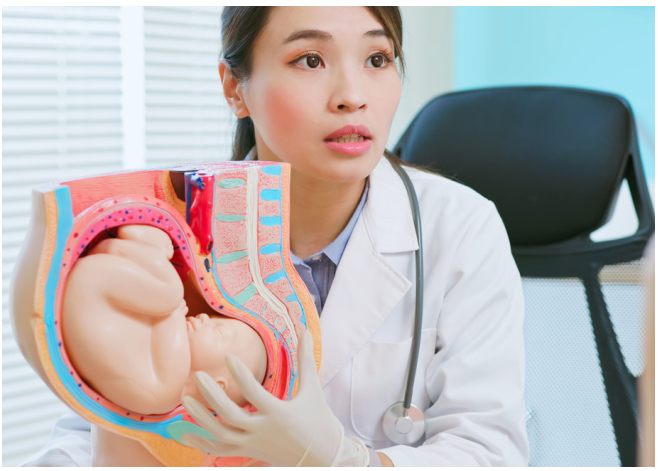
PRENATAL CARE

Table 8. Percentage of Births with Inadequate Kotelchuck Index in Perinatal Regions of Georgia, 2016-2020, *OASIS*

Albany	19.2	25.5	22.5	22.5	20.7
Atlanta	20.0	19.1	19.7	19.4	19.2
Columbus	19.8	19.7	19.9	20.9	16.8
Perinatal Region Summary	19.9	19.6	19.9	19.8	19.1
Georgia	19.2	19.0	19.6	19.0	18.6

The Kotelchuck Index (IKI) measures adequacy of prenatal care based upon month of entry, number of prenatal visits, and gestational age of infant at birth.
(Georgia Department of Public Health)

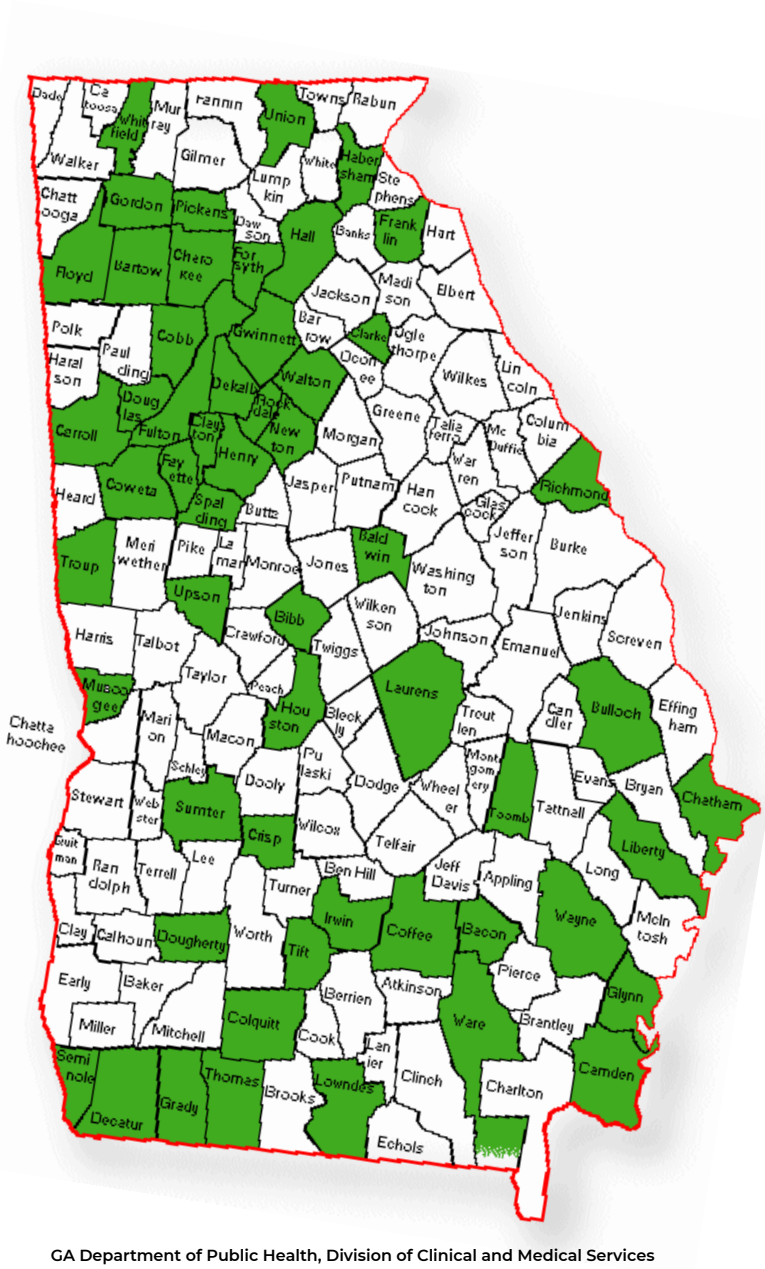
Early prenatal care is essential for the healthy development of the baby and the health of the mother during pregnancy. The CDC recommends taking folic acid, checking for rubella and blood type, and seeking counseling on smoking, alcohol, and healthy eating before conception (37). Prenatal checkups are essential to reducing maternal and infant mortality rates. According to table 8, the Atlanta, Albany, and Columbus perinatal regions have consistently had inadequate prenatal care when compared to the state average. However, Columbus saw a slight improvement in 2020. To see where your district stands in prenatal adequacy, refer to HMHBGA's Project 236.



ACCESS TO CARE

LABOR AND DELIVERY FACILITIES

Counties with a L & D Unit (Appendix 1)



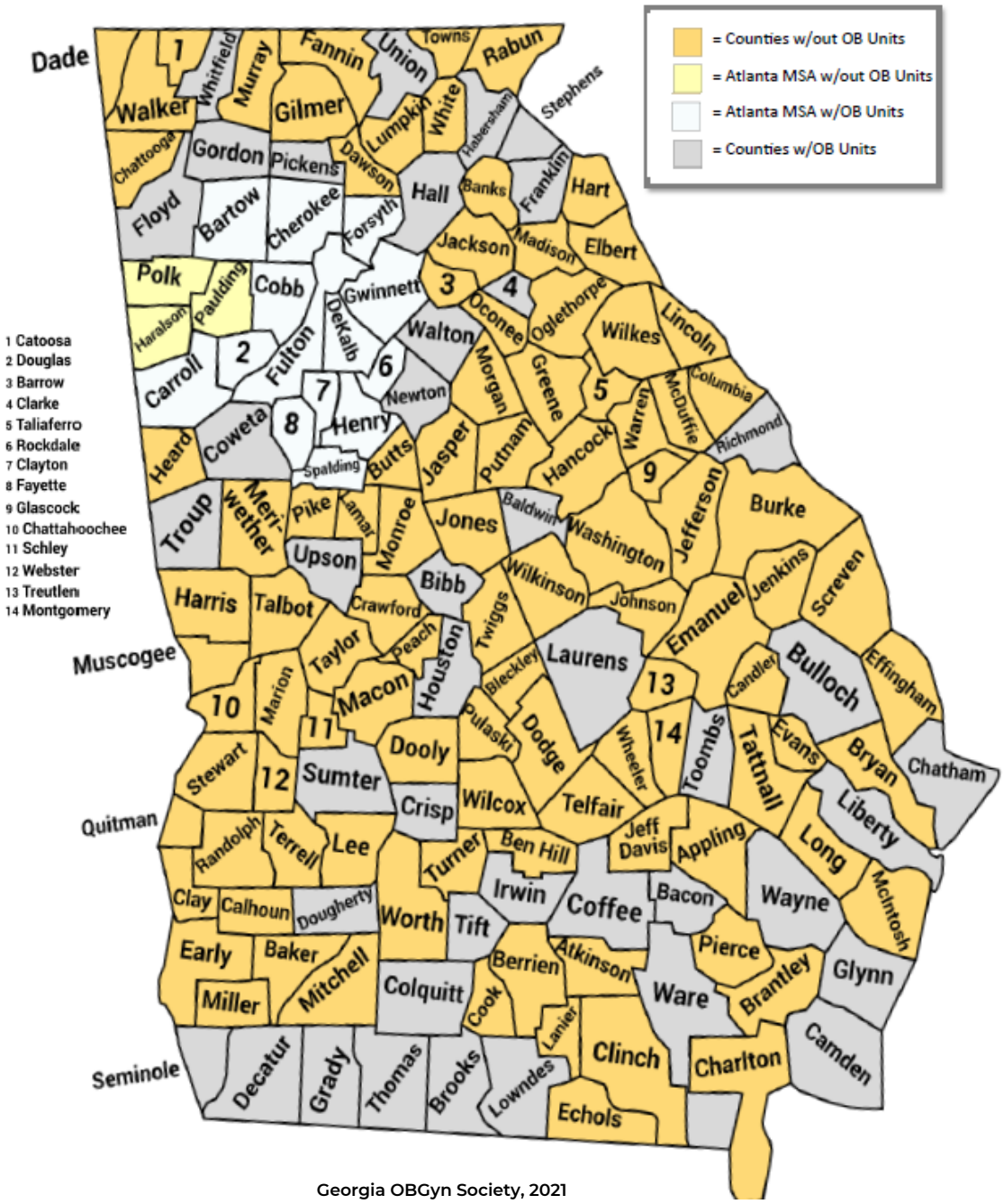
GA Department of Public Health, Division of Clinical and Medical Services

36% of counties in Georgia have a labor and delivery facility.

ACCESS TO CARE

OBGYN FACILITIES

Shortages of OB Units in Georgia, 2021 (Appendix 2)



Georgia OBGyn Society, 2021

62% of counties in Georgia do not have an OBGYN unit

*MSA = Metropolitan Statistical Area

ACCESS TO CARE

OBGYN DEMOGRAPHICS

Demographic data for Georgia OBGYNs was obtained by the Georgia Board of Health Care Workforce (GBHCW). The statistics are based on the number of responses that the GBHCW obtained from the 2019-2020 physician renewal survey (38). Based on the recent physician renewal survey, there was a total of 1,363 OGBYNs in the state of Georgia. Of those individuals, 39.4% are in the 50-64 age group, 34.2% are in the 35-49 age group, 18.8% are in the 65+ age group, and 7.6% are in the 34 and under age group. In the next 5 years, about 7% of OBGYNs in the 65+ age group and 3.8% in the 50-64 age group will retire. From 2006 to 2020, there has been a 336 increase in OBGYN providers, however when looking at the rate of OBGYNs in the workforce per 100,000 providers (figure 41), there has been a constant decline suggesting an increased shortage of OBGYN providers in the state (38).

Figure 41. Rate of OBGYNs in Georgia, 2006-2020, *GA Board of Health Care Workforce*

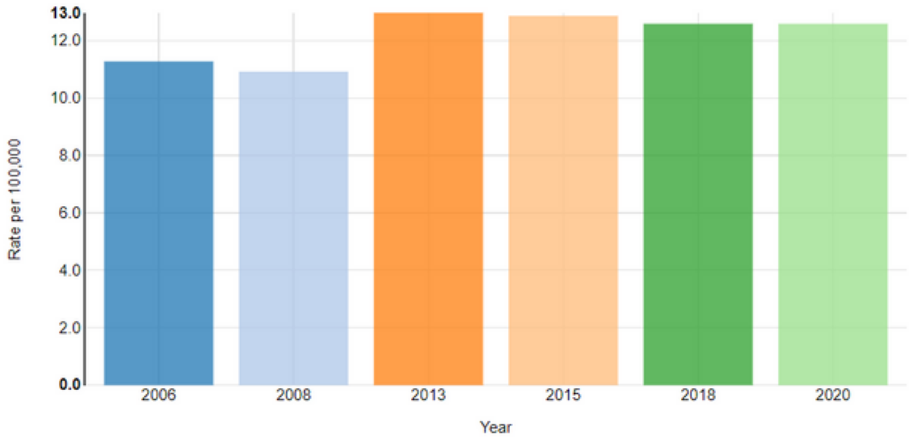
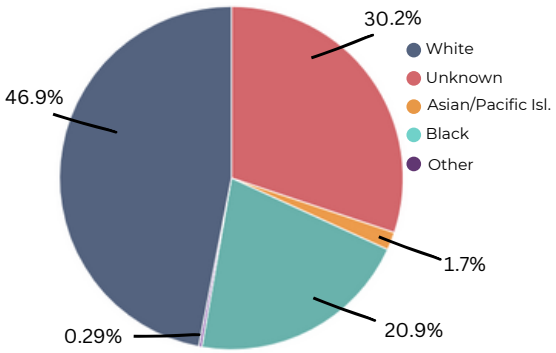


Figure 42. OBGYN Racial Distribution in Georgia, 2019-2020, *GA Board of Health Care Workforce*



Of the recorded OBGYNs in Georgia, 62% of physicians accept Medicaid from a current patient, while 57% accept new Medicaid recipients. Additionally, 58% of OBGYNs are female and 42% are male. However, when looking at the racial distribution of providers, 47% are White, 21% are Black/African American, and 1.7% are Asian (figure 42). Data for Hispanic/Latino OBGYNs are unclear. Based on this distribution, more representation of Black/African American and other racial minorities are needed.

ACCESS TO CARE

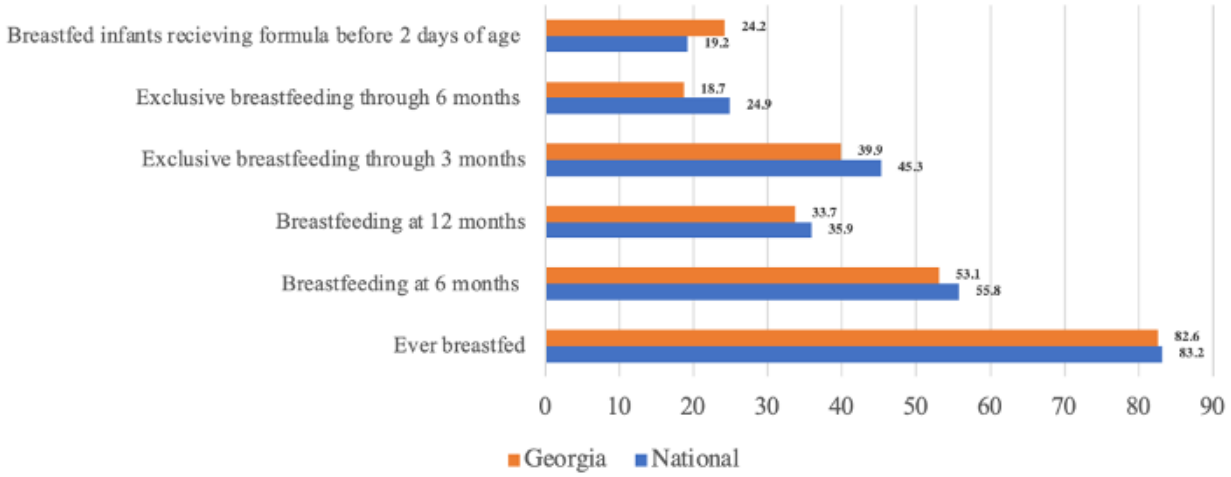
BREASTFEEDING

Breastfeeding Benefits

- Lower risk of high blood pressure, type 2 diabetes, ovarian cancer, and breast cancer (39)
- Reduce risk of asthma, obesity, type 2 diabetes, ear and respiratory infection, and SIDS for babies (39)

Georgia's Breastfeeding Frequency is Slightly Lower than the National Average (41).

Figure 43. Breastfeeding rates for infants born in 2019, *CDC Wonder*



According to the CDC's 2022 Breastfeeding Report Card, most infants (83.2%) born in 2019 have received some breastmilk (41). However, breastfeeding rates continuously decline over time as 69.1% of infants were breastfed at 3 months, 55.8% of infants were breastfed at 6 months, and 35.9% of infants were breastfed at 12 months (41). Furthermore, only about a quarter of infants are exclusively breastfed at 6 months as recommended (41). Georgia's breastfeeding frequency is slightly lower than the national average, with 82.6% of infants ever breastfed (41). Additionally, 53.1% of infants were breastfed at 6 months, and 33.7% of infants were breastfed at 12 months (41). The decrease in breastfeeding rates throughout the first 12 months of life may suggest that women are not receiving the social, political, and/or physical support they need to continue breastfeeding (41). The Healthy People 2030 goals for breastfeeding are to increase the proportion of infants breastfed exclusively through age 6 months to 42.4% and increase the proportion of infants who are breastfed at 1 year to 54.1% (42,43). Currently, the United States and Georgia have not met this goal (41).

ACCESS TO CARE

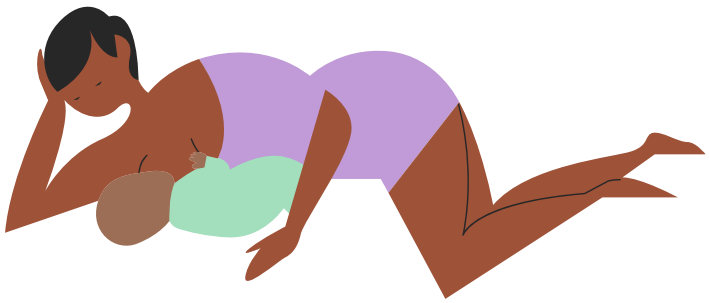
BREASTFEEDING

Barriers to Breastfeeding

There are existing disparities in breastfeeding rates. Among infants born in 2019, only 74.1% of non-Hispanic Black infants were ever breastfed, which is less than the national average (83.2%) (41,45). Non-Hispanic Black infants are ever breastfed less compared to Asian infants (90.8%), non-Hispanic White infants (85.3%), and Hispanic infants (83.0%) (45). Additionally, infants receiving the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) were ever breastfed at lower rates (74.7%) than infants that are eligible but not receiving WIC (85.6) and infants that are ineligible for WIC (91.2) (45). Maternal education is also associated with breastfeeding rates as infants born to mothers that have completed a college degree are more likely to ever be breastfed (91.5%) than mothers that did not complete high school (71.6%) (45). Lastly, there is an association between breastfeeding rates and age as mothers aged 30 years or older are more likely to ever breastfeed (84.9%) compared to mothers aged 20 to 29 years (79.9%) (45).

Demographics and Breastfeeding Rates

According to Pregnancy Risk Assessment Monitoring System (PRAMS) data, between 2016 and 2020, 87.9% of mothers reported ever breastfeeding. However, 68.5% reported any breastfeeding at 8 weeks (44). The decrease in breastfeeding rates over time suggests that there are barriers to breastfeeding continuation. It is reported that 60% of mothers do not end breastfeeding earlier than they intend to for reasons including unsupportive work policies, cultural norms and lack of family support, unsupportive hospital practices and policies, concerns about taking medications while breastfeeding, and concerns about infant nutrition and weight (45). Currently, there is no enacted legislation in Georgia for paid family and medical leave (41), which may also serve as a severe barrier to breastfeeding continuation.



ACCESS TO CARE

BREASTFEEDING

Breastfeeding Support Indicators

The Baby-Friendly hospital designation is a WHO international initiative started in the 1990s to recognize hospitals that promote breastfeeding initiatives within a set of global guidelines (8). Since July 2018, there have been 68 additional (n=598) Baby-Friendly facilities in the U.S. and 1 additional facility (n=14) in Georgia (46,47). In 2021, 32.6% of live births occurred at Baby-Friendly facilities in Georgia, slightly above the national average (28.9%) (41). Another assessment measure of breastfeeding in the U.S. is the Maternity Practices in Infant Nutrition and Care (mPINC) Survey, which "assesses maternity care practices and provides feedback to encourage hospitals to make improvements that better support breastfeeding" (41). Georgia's 2020 mPINC Survey score was 75/100 (3).

An additional breastfeeding support indicator is the Early Childhood Education (ECE) licensing breastfeeding support score, which is a scorecard created by the CDC to reflect if each state's licensing regulations for childcare centers adequately promote the Caring for our Children's breastfeeding support standard. On-site breastfeeding support is one of 47 high-impact obesity prevention standards. "Higher scores indicate that the state's licensing regulation for childcare centers fully supported the standard (100), and lower scores indicate the state's licensing regulation only partially addressed (70), did not address (30), or contradicted (0) the standard" (41). In 2021, Georgia's ECE score was 100/100, indicating Georgia's licensing regulation fully supports breastfeeding at childcare centers (41).

The Georgia Department of Public Health's Georgia 5-Start Hospital Initiative program also recognizes hospitals that promote and support breastfeeding within their facilities (49). The WHO and Baby-Friendly USA's Ten Steps to Successful Breastfeeding is used to encourage hospitals to promote breastfeeding in their maternity centers. A hospital receives 1 star for every 2 steps they perform until reaching the 5-star designation (47). As of April 2021, 46 hospitals throughout the state of Georgia are 5-Star participants, which is more the 2 times the amount in 2019 (47).

ACCESS TO CARE

BREASTFEEDING

Breastfeeding Laws

Recently, two new laws have been enacted to support breastfeeding for Georgia mothers. As of July 2020, Medicaid coverage will include lactation care and services to pregnant and postpartum lactating women up to six months following childbirth. Additionally, as of August 2020, Georgia employers are required to provide reasonable break time to working mothers who desire to express breastmilk at the work site during work hours. ii Georgia and federal breastfeeding laws are included below.

Table 9. Federal and State of Georgia Breastfeeding Laws

Level	Law Name/Code	Summary of Law
State	Breastfeeding at Work HB 1090 O.C.G.A. § 34-1-6	"An employer shall provide break time of reasonable duration to an employee who desires breast milk at the worksite during the work hours. Any break time provided for under this Code section shall be paid at the employee's regular rate of compensation. The employer shall provide a private location, other than a restroom, where such employee can express breast milk in privacy at the worksite." ii
State	Medicaid Coverage for Lactation Care and Services and Postpartum Care HB 1114	"The department shall provide Medicaid coverage for lactation care and services to pregnant and lactating women and to children who are breastfeeding or receiving their mother's milk and postpartum care for mothers for a period of six months following the date the woman gives birth." i
State	Breastfeeding in Public § 31-1-9	"The breast-feeding of a baby is an important and basic act of nurture which should be encouraged in the interests of maternal and child health. A mother may breast-feed her baby in any location where the mother and baby are otherwise authorized to be".iv
Federal	The Patient Protection and Affordable Care Act amended section 7(r) of the Fair Labor Standards Act regarding breastfeeding at work	The amended section states that: "An employer should provide– (A) a reasonable break time for an employee to express breastmilk for her nursing child for one year after the child's birtheach time such employee has need to express milk; and (B) a place, other than a bathroom, that is shielded from view andfree from intrusion from coworkers and the public, which may be used by an employee to express breast milk." iii

I: HB 1090 2019-2020 Regular Session of the General Assembly

II: HB 1114 2019-2020 Regular Session of the General Assembly

III: "Georgia Breastfeeding Law." Georgia Breastfeeding Coalition, https://www.georgiabreastfeedingcoalition.org/breastfeeding-legislation.

IV: "Section 7(R) of the Fair Labor Standards Act – Break Time for Nursing Mothers Provision." United States Department of Labor, https://www.dol.gov/agencies/whd/nursing-mothers/law.

ACCESS TO CARE

MATERNAL ORAL HEALTH

Georgia women reported having their teeth cleaned during pregnancy

Georgia women needed to see a dentist for a problem during their pregnancy

Georgia women knew it was important to care for teeth and gums during pregnancy

Percentage of women who reported having dental insurance during pregnancy (Georgia PRAMS, 2017-2019)

Racial & Ethnic Disparity

Twice as many non-Hispanic Black or Mexican adults have untreated cavities as non-Hispanic White adults. Compared to non-Hispanic Whites, African Americans with lower SES suffer more tooth loss, dental decay, and dental pain (48).

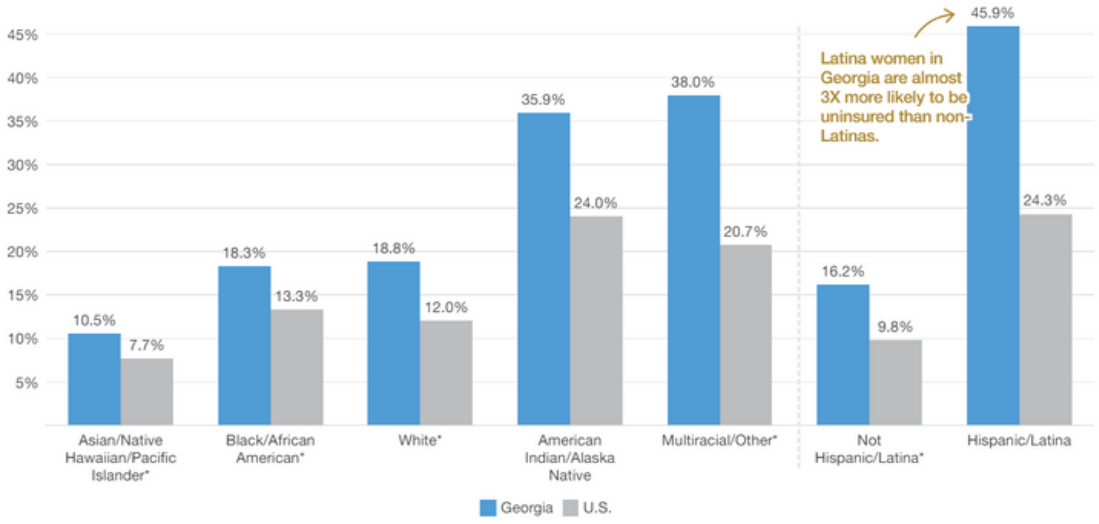
Oral health is important for both pregnant woman and their infants. Women are at a higher risk of periodontal disease during pregnancy. Periodontal may associate with adverse birth outcomes, such as preterm birth and low birth weight.

ACCESS TO CARE

INSURANCE & MEDICAID: NATIONAL

Almost **one in five women of reproductive age are not covered by private or public insurance in the state of Georgia** (49). Notably, one of the highest percentages in the country, Georgia currently ranks 47 for women in this age group (49). One of the barriers to care is affordability of services, cost of prescriptions, treatment, and providers not accepting coverage (49). As a result of these barriers, Georgia ranks 50 for avoidance of care, the highest rate in the country of women ages 18-44 who reported needed care but avoided care due to cost (49). As of May 2022, Georgia has not expanded coverage to low-income adults which exacerbates poor health outcomes and disparities for Georgia mothers and babies (50). In terms of metrics, Georgia has consistently performed poorly in areas such as prenatal care, access to postpartum care, and overall comprehensive maternal care (51).

Figure 44. Uninsured rate for women of reproductive age (18-44) in Georgia and the U.S by Race/Ethnicity, 2019, *Georgetown University Center for Children and Families, U.S Census Bureau*

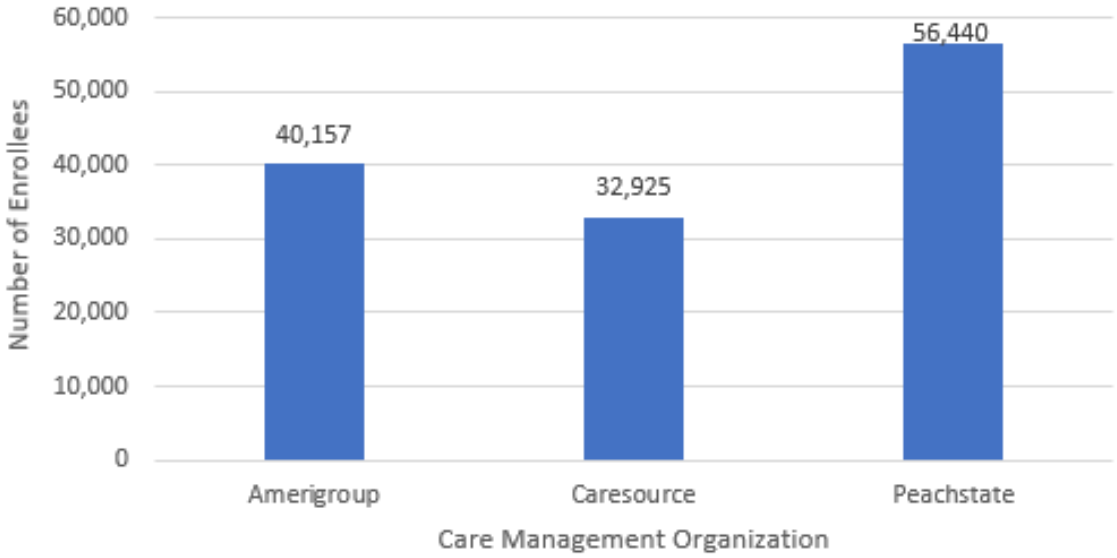


Nearly half of women of reproductive age who identify as Hispanic and/or Latina report not being insured. (51).

ACCESS TO CARE

INSURANCE & MEDICAID: STATE

Figure 45. Number of Individuals Enrolled in Pregnancy Medicaid by CMO in Georgia, 2021-2022, *GA Department of Community Health*



When looking at the number of individuals enrolled in Pregnancy Medicaid from 2021-2022 at the state level, Peachstate contains the MOST enrollees (n= 56,440), followed by Amerigroup (n= 40,157), then Caresource (n=32,925).

Medicaid has provided maternity-related services for nearly half of all births in the United States. Medicaid "is a federal and state sponsored program that pays for health services for low-income and resource limited individuals, families, and people with disabilities" (52).

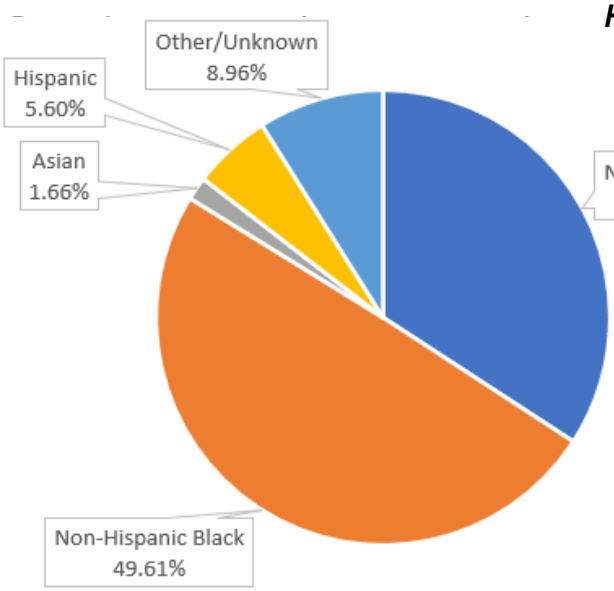
Furthermore, Medicaid coverage for pregnant women can include tobacco dependence interventions which can:

- reduce perinatal deaths (53)
- reduce the number of premature and low-birth weight babies (53)

ACCESS TO CARE

INSURANCE & MEDICAID: STATE

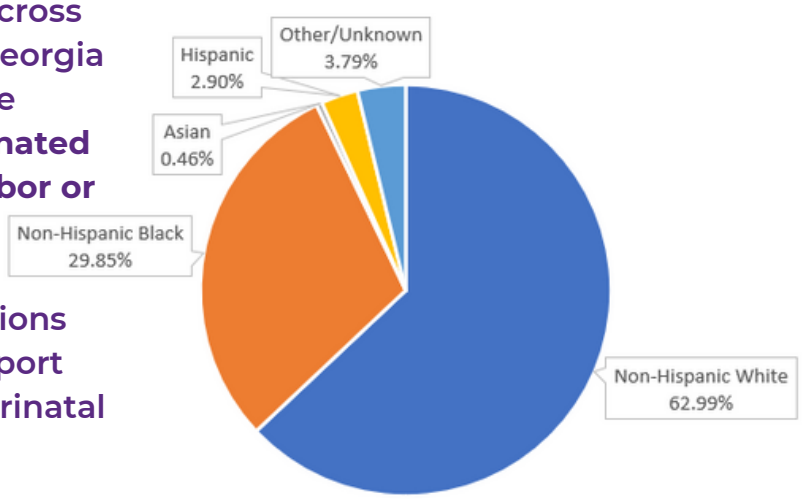
Figure 46. Percentage of individuals enrolled in Pregnancy Medicaid by Race/Ethnicity in Non-Rural Georgia, 2021-2022, *GA Department of Community Health*



Nearly 50% of individuals enrolled in Pregnancy Medicaid in the State of Georgia identify as non-Hispanic Black. Black women face higher rates of maternal mortality in Georgia. **Black infants die at higher rates (8.9%) in Georgia than white babies (5.0%)** in the state (51). Georgia's current Pregnancy Medicaid ranks poorly on important maternal and infant metrics such as "timeliness of prenatal care, access to postpartum care, and percentages of babies with low birthweight (51.)"

Figure 47. Percentage of individuals enrolled in Pregnancy Medicaid by Race/Ethnicity in Rural Georgia, 2021-2022, *GA Department of Community Health*

Rural non-Hispanic White women constitute over half of individuals enrolled in Pregnancy Medicaid. Despite coverage, the Center for Reproductive Rights reports that hospital labor and delivery units have been closing across the state of Georgia. In 2019, the Georgia House Budget and Research Office reported that "**93 of the 109 designated rural counties have no hospital labor or delivery unit, 75 of the 109 rural counties have no obstetrician-gynecologists**" (54). Rural populations are at risk for losing access to support networks needed for adequate perinatal care.

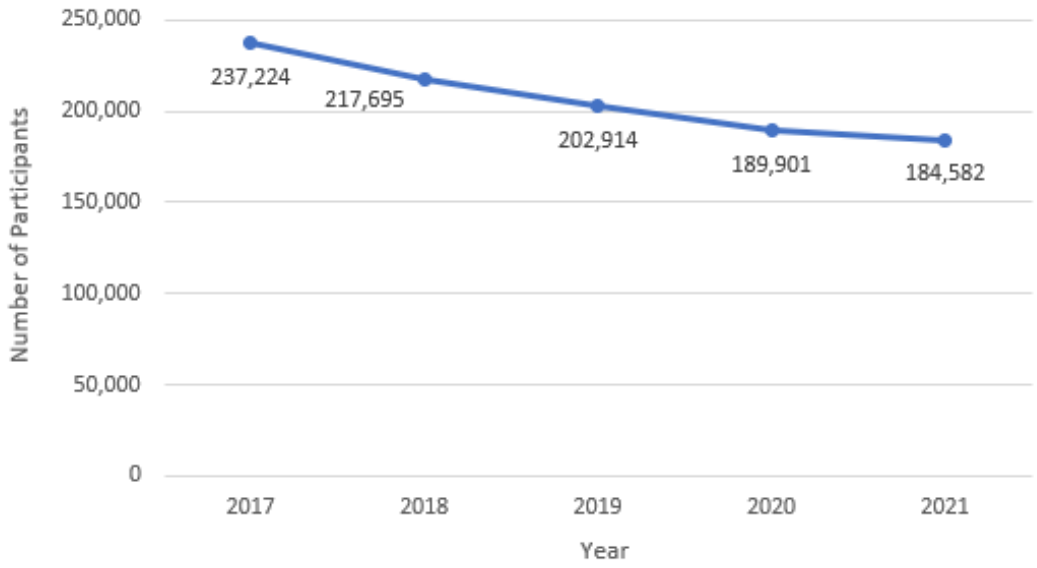


ACCESS TO CARE

WIC

WIC is the Women, Infants, and Children Supplemental Nutrition Program that provides short-term assistance to pregnant women, infants and children, and breastfeeding and postpartum mothers to improve their health and nutrition outcomes. Women are eligible to participate if they are pregnant, if they are breastfeeding up to one year, or if they are postpartum up to six months, and parents or guardians of infants or children ages 1 to 5 years old are also eligible to participate. These women and parents or guardians must be considered low-income, defined as being equal to or less than 185% of the federal poverty level. Georgia WIC provides food vouchers for WIC-authorized vendors as well as breastfeeding, health, and nutrition information and help in finding community services. WIC program participation has been slowly declining nationally over the past five years, and WIC program participation in Georgia is no different. Between 2017 and 2021, WIC program participation levels in the state declined from 237,224 recipients in 2017 to 184,582 recipients in 2021, which is a 22% decrease in four years (55).

Figure 48. Number of WIC Participants in Georgia, 2017-2021, *U.S. Food & Nutrition Service*



WIC has helped achieve public health goals such as reducing premature births, infant mortality, and reducing maternal mortality. WIC supports two major Healthy People goals to 1) "promote health and reduce chronic disease risk through consumption of healthful diets, and achievement and maintenance of healthy body weights, and 2) improves the health and well-being of women, infants, children, and family." (56)

ACCESS TO CARE

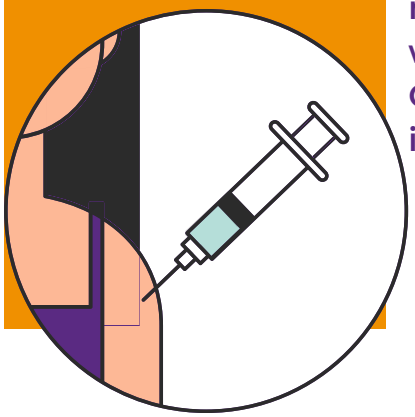
VACCINATIONS: COVID-19

COVID Vaccine Statistics

VACCINES ADMINISTERED
ADMINISTERED (as of February 2022)

200,000 pregnant persons have received the COVID-19 vaccines (57).

(Pfizer & Moderna) without any safety concerns.



Impact of COVID Vaccine On Pregnancy

Yes, if you are pregnant, you can receive a COVID-19 vaccine and booster shot.

You might want to have a conversation with your healthcare provider to help you decide whether to get vaccinated. While such conversation might be helpful, it is not required before vaccination. Learn more about vaccination considerations for people who are pregnant or breastfeeding.

If you are pregnant and have received a COVID-19 vaccine, we encourage you to enroll in v-safe, the CDC's smartphone-based tool that provides personalized health check-ins after vaccination (58). A v-safe pregnancy registry has been established to gather information on the health of pregnant people who have received a COVID-19 vaccine.

v-safe℠ after vaccination health checker

People who are pregnant or recently pregnant are more likely to get severely ill with COVID-19 compared with people who are not pregnant (58). Getting a COVID-19 vaccine can help protect you from severe illness due to COVID-19.

ACCESS TO CARE

VACCINATIONS: INFLUENZA

Pregnant women are at a high risk for complications from influenza infection. Unfortunately, Georgia still ranks as one of the worst states for flu vaccine uptake. The CDC reports that non-Hispanic Black populations have the lowest rate of flu vaccine coverage. Georgia's flu vaccine coverage for pregnant women (*40.8%*) is below the country average (*59.6%*) (59).

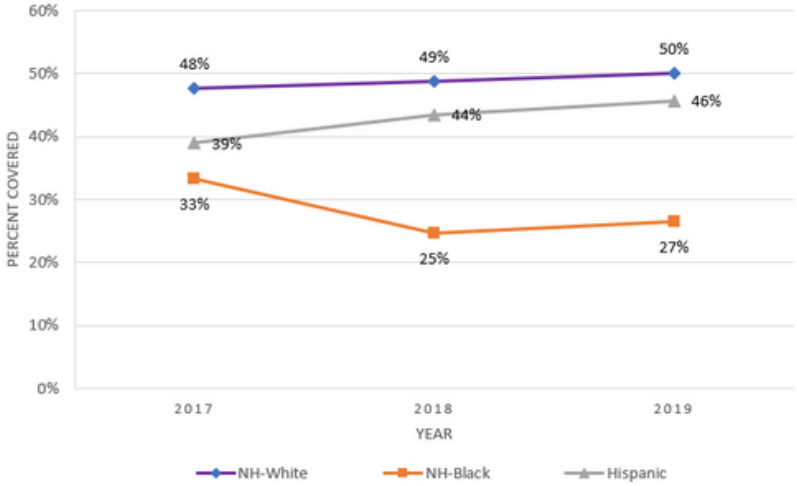
Georgia reports several reasons why women do not receive the influenza vaccinations during pregnancy (59):

- "I normally do not get the flu vaccine."
- "My physician did not mention anything about the flu vaccine during my pregnancy."
- "I was worried that the flu vaccine might harm my baby."
- "I was worried about the side effects of the flu vaccination for me."

National vs. State Average Flu Vaccine Coverage for Pregnant Women, 2017-2019

CDC Pregnancy Risk Assessment Monitoring System

Figure 49. Percent of Influenza vaccine coverage among women who had a recent live birth in Georgia by Race/Ethnicity, 2017-2019, *CDC*



HMHBGA SPECIAL PROJECTS

MEDICAID DOULA PILOT

Description: HMHBGA has partnered with care management organizations to match 175 pregnant Medicaid recipients to doulas. Clients are able to receive up to 5 doula visits, for a doula reimbursement rate of up to $700. The goals of the pilot are to explore 1) The health outcomes of moms, birth givers, and babies participating in Medicaid, who are living in Georgia, and 2) The best process for reimbursing doulas to promote their economic security and retention in the healthcare workforce in Georgia.

The findings from this pilot will inform HMHBGA's efforts to expand access to these services and provide insights for the best process for engaging doulas in the formal healthcare sector— for example, possibly through the legislature to permanently cover full spectrum doula services during the prenatal and postpartum period through Medicaid. The pilot primarily aims to improve maternal and child health outcomes by increasing the support that birth-givers receive.

Current outcomes: All 175 Medicaid recipients are being served by 41 doulas throughout the state of Georgia. The need is prevalent as there is a large waitlist of Medicaid recipients who are desiring doula services. Current demographic of clients served are 68% Black/African-American, 16% White, 6% Hispanic/Latino, 8% Other, and 2% Unknown. A majority (74%) of clients live within or around the Atlanta Metropolitan area. Doulas participating in the pilot are 84% Black/African American, 12% White, and 2% Hispanic/Latino. All participating doulas are certified and have at least 1 year of experience. Data is still being collected on clients' health, doula observations from client visits, infant health at birth, and health care provider perspectives.

Projected outcomes: To begin at the end of 2022 to early 2023, we will analyze all collected data from client, doula, and provider surveys, health records, and interviews to understand the impact of doula services for Medicaid recipients. Analysis will also assist in understanding health care provider perspective on doula care on maternal and infant health, and to understand the perspective of care management organizations on the Medicaid reimbursement process.

Led by: Thunwa Klaihathai & Chanel Stryker-Boykin

HMHBGA SPECIAL PROJECTS

SAFE UNDER THE LILIES FUND

Description: In collaboration with the Georgia Department of Public Health, HMHBGA has developed the Safe Under the Lilies Domestic Violence (DV) Fund. This domestic violence/ intimate partner violence fund will serve as a tool to provide financial support, community resources, & education for survivors in Georgia. The purpose of this fund is to provide survivors of intimate partner violence financial assistance to aid in the support of their transition to a safer situation while also maintaining their autonomy and dignity, and provide financial support for any priority needs they currently are experiencing.

Fund Requirements:
Open to pregnant or postpartum survivors (up to 2 years) in GA
Survivors must be linked to local DV organization/ shelter
Every survivor can receive up to $1000 in financial assistance

Current outcomes: The project launched in July 2022. As of October 2022, we have assisted 4 survivors and have partnered with 4 different domestic violence organizations in Albany, Columbus, Savannah, and Hinesville.

Projected outcomes: Provide yearly service up to 20 moms/birth givers throughout the State of Georgia, whom are transitioning to safer environments. Additionally, leverage partnerships with more DV shelters and organizations throughout the State of Georgia, including but not limited to perinatal regions of Atlanta, Columbus, & Albany.

Led by: Kimberly Roberts & Tamiah Daniel

HMHBGA SPECIAL PROJECTS

PICKLES & ICE CREAM

Description: Established in 2020, Pickles & Ice Cream provides accessible, mom-friendly, evidence-based maternal and infant health information and resources. Perinatal education classes are provided and offer a judgment-free zone for anyone to ask questions about everything related to essential education and support! There is no fee, and the course is open to any child-bearing person who is currently pregnant or has given birth. All classes are led by a certified instructor. There are also toolkits and referral guides, blogs posts, and videos available for providers, educators, and families who need Georgia-specific maternal health resources.

Current outcomes: Classes are currently being held virtually, but will be transitioning to a hybrid model soon. P&I also currently hosts 8 classes in the following topics: Financial literacy, prenatal care, baby care, maternal mental health, postpartum, labor support, and maternal nutrition.

Since the program's inception in 2020, we have served over 500 participants. As of 2022, our knowledge gain is up 20% compared to 2021 data. We have had the lowest participation rates from Macon and Albany. However, our new classes of financial literacy, labor support, and maternal nutrition have robust attendance.

Additionally, our reach has been increasing at an exponential rate. As of October 2022, we have 1,613 followers across all of our P&I social media channels, with an average of 135,932 monthly impressions just from FY2022 alone.

Projected outcomes: We aim to accomplish the following goals in the future: Increase rural participation in the perinatal education classes by 20%; Have an average knowledge gain of 10% per topic area; Have 20 educators trained in the perinatal education curriculum; Increase overall participation rate in the Albany and Macon areas by 10-15%.

Led by: Erika Pope & Lupe Arteaga

HMHBGA SPECIAL PROJECTS

PERINATAL CARE PACKAGES

Description: HMHBGA provides free perinatal care packages to pregnant and postpartum birth givers who live in Georgia as a strategy to address maternal morbidity concerns in the state. We partner with GA-based agencies and moms across the state to disseminate resources to families. The current care packages include a blood pressure monitoring system, breastfeeding book, journal, thermometer, thermometer probe covers, breastfeeding storage bags, compression socks, candles, and motivational card packs. Request orders are accepted monthly to be delivered the next month. Families can request them individually for themselves and organizations can request up to 10 per month to distribute to their clients.

Current outcomes: Since this project was started in April 2021, we have distributed 1,655 care packages as of September 2022. We have partnered with 63 different organizations and have distributed care packages to 37 counties and 98 cities within the state of Georgia, South Carolina, and Alabama.

Projected outcomes: Serve 3% of the yearly average number of births in the state, which is currently approximately 127,000 births a year. That would mean to serve 325 families with a care package per month or 3,900 families a year.

Led by: LaNaarai Wilder

PROJECT 236

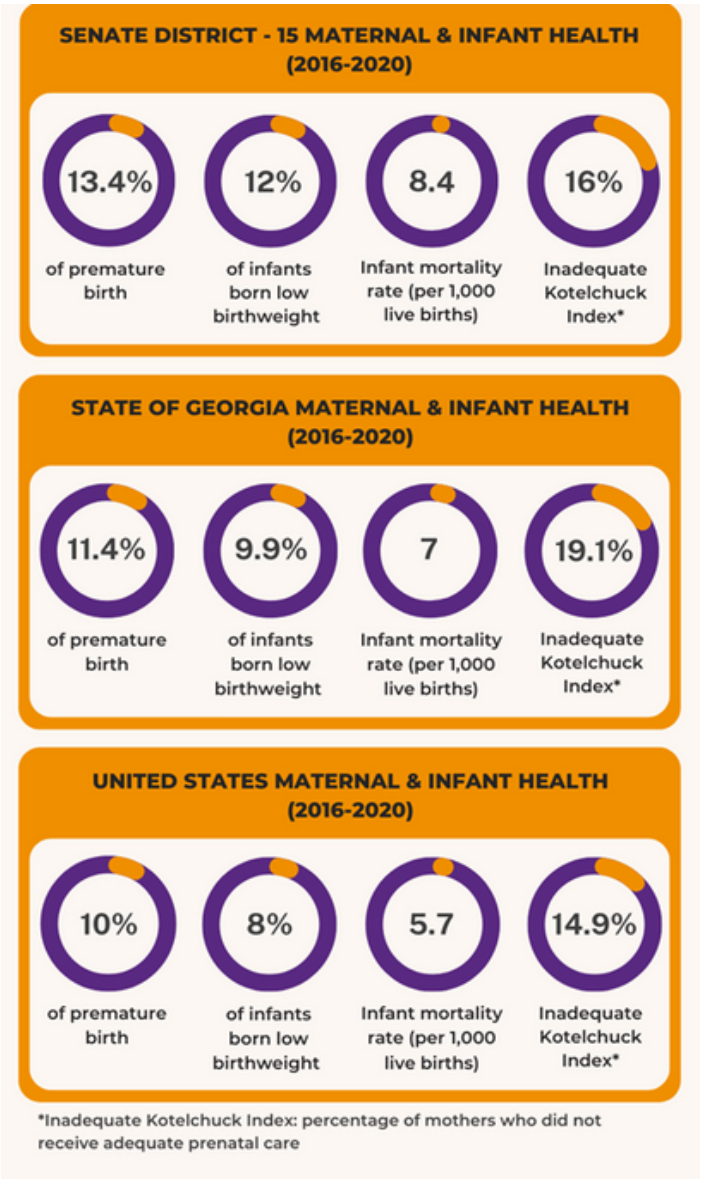
Description: Project 236 is a legislative report for all 180 house and 56 senate districts. It serves as a tool for advocates to get a clearer insight on the state of their district's maternal and infant health. Main data points include the district's percentage of premature births, percentage of infants born with low birthweight, prenatal care adequacy, and infant mortality rate. These data points are then compared to the state and national statistics. The report consists of the updated 2022 redistricted counties.

Current outcomes: Previous Project 236 legislative priority to expand Pregnancy Medicaid (SB 338) from 6 months to 1 year postpartum successfully passed in legislation this past summer and went into effect July 1, 2022 (65).

HMHBGA SPECIAL PROJECTS

Projected outcomes: New legislative priorities will work towards seeing an increase in legislative support to protect pregnant and postpartum employees in workplace accommodations, ensure adequate funding to the Department of Public Health's Maternal and Child Health Section, and increase the state tobacco product excise tax on both tobacco and tobacco alternative products.

Led by: Kyesha Lindberg & Madison Scott



Scan here to view your legislative district data.

HMHBGA SPECIAL PROJECTS

BPSP

Description: The Building Perinatal Support Professionals Program (BPSP) began in 2018 to support low-income scholars in pursuing a doula career pathway and to helps fight birthing disparity in Georgia's most vulnerable communities. The program provides scholarship and support for those seeking credentialing as Certified Doulas, Childbirth Educators, and Certified Breastfeeding Specialists. We match each participant with an experienced mentor and provide additional training beyond the necessary credentialing workshops to develop opportunities for economic self-sufficiency. All participants will also undergo trainings related to birthing justice, implicit bias, and how to support all birthing people.

Current outcomes: Since its inception, it has since provided mentorship, continuing education, and scholarship to 80+ scholars. The program currently has 38 scholars working towards certification in the various perinatal professions. Since March 2022, scholars have completed 12 continuing education classes and expert chats. These classes and chats cover various topics ranging from CPR, lactation education for birth workers, contracts and records management, business planning and marketing, how to prevent doula burnout, how to build a network/ community, and so much more! Each program matches interested families with free or reduced, childbirth education, doula, or certified breastfeeding specialist support. Seven participants have been matched with doulas to receive antepartum, intrapartum, and postpartum care. The childbirth education and certified breastfeeding specialist matching applications will go live in November. The program also services our rural population by providing education to rural community members with the intent that those services will be provided to the members and build awareness about perinatal support professions.

Projected outcomes: By August 2023, our scholars would have completed and attended an additional 20 trainings and expert chats, collectively. Other projected outcomes for the BPSP Program are to increase the perinatal workforce, to assist scholars with receiving and maintaining a livable wage, to support the community by educating underserved populations, and to build awareness about perinatal support professionals in the state. The program will also seek to service marginalized families by ensuring that they receive adequate perinatal support and education. The program will expand its reach in the next year to provide more scholarships and continuing education to a larger group of participants, with emphasis on our rural population.

Led by: Chanel Stryker-Boykin & Deondra Henderson

LIMITATIONS

This report has some limitations that impact how the findings should be interpreted. Firstly, the data included in this report comes from a number of sources, some of which include contradicting points. For the purpose of this report, the most recent and reliable data source was chosen. Additionally, the statistics for the Hispanic/Latino population obtained from OASIS are only available as a combined category, labeled as “Ethnicity”. This category encompasses all races.

There is significant data missing from this report:

- 2021 data from OASIS for maternal mortality, morbidity, and some infant health topics at the time the report was written;
- 5-year time span of Pregnancy Medicaid data;
- Covid-19 and Influenza vaccine statistics for children and infants

In addition, there is likely substantial under-reporting of fetal deaths, particularly at earlier gestational ages. Because records are often missing data for fetal deaths, the breakdowns listed in the “Fetal Mortality” section may not be entirely accurate. Finally, data for Medicaid enrollees is often under-reported, affecting the accuracy of the data. Furthermore, vaccination rates may differ from most current information by publication of this report.

CONCLUSIONS

This report concludes that maternal and infant health in Georgia is evolving, with both challenges and prospects for a bright future for Georgia’s mothers and infants. Georgia's challenges continue with preterm birth, low birthweight infants, unintended pregnancy, cesarean sections, and maternal mortality. There are numerous known maternal and infant health disparities and inequities in Georgia by race, age, insurance status, ethnicity, education, region, etc. In particular, Black and African American women and infants in Georgia experience worse maternal and infant outcomes than all other races and ethnicities. The number of available OBGYNs and labor and units are not enough to support the needs of our maternal and infant health population. We conclude this report with recommendations in the following areas: (1) infant health, (2) prenatal/ perinatal health, (3) maternal substance prevention, (4) neonatal abstinence syndrome, (5) maternal mental health, (6) maternal mortality prevention, (7) patient education, (8) increasing breastfeeding duration, (9) social support during prenatal and postpartum periods, (10) legislative advocacy, and (11) data collection and needs assessment.

RECOMMENDATIONS

Infant Health Recommendations

- Providers should use the socio-ecological model for addressing low birth weight. By understanding the complex and multiple intersections such as environment, social networks, health behaviors, and attitudes can help identify factors that influence the incidence of low birth weight (62).

Prenatal/Perinatal Health Recommendations

- The American College of Obstetricians and Gynecologists recommends maternity staff receives at least 20 hours of training in breastfeeding support and management (62).
- During pregnancy, perinatal persons should work with their provider to develop a postpartum care plan. Postpartum care should be an ongoing process that are tailored to each individual's needs.

Maternal Substance Abuse Prevention Recommendations

- Expansion of Medicaid to include counseling services and interventions to address substance abuse.

Maternal Mental Health

- The American College of Obstetricians and Gynecologists recommend that clinicians screen patients at least once during the perinatal period for depression and anxiety symptoms (62).
- Development of a network of reliable, accessible, and culturally sensitive mental health services for perinatal persons.

Maternal Mortality Prevention

- Increase access to contraception, safe abortion services, and quality care.
- The World Health Organization recommends calcium supplementation for those with low dietary calcium to reduce the risk of developing preeclampsia during pregnancy (63).
- Increase access to maternal education to decrease risk of obesity among pregnant women (4).

APPENDICES

Appendix 1: List of labor and delivery units in Georgia

Regions & Counties	Hospital
Albany (Colquitt, Decatur, Dougherty, Grady, Lowndes, Seminole, Thomas)	Colquitt Regional Medical Center, Memorial Hospital and Manor, Phoebe Putney Memorial Hospital, Grady General Hospital, South GA Medical Center, Donalsonville Hospital, John D. Archbold Memorial Hospital
Atlanta (Bartow, Cherokee, Clayton, Cobb, Dekalb, Douglas, Fayette, Floyd, Forsythe, Franklin, Fulton, Gwinnett, Habersham, Hall, Henry, Newton, Pickens, Rockdale, Union, Whitfield) *Wellstar Atlanta Medical Center in Fulton County is no longer operational as of 11/1/2022	Piedmont Cartersville Medical Center, Northside Hospital Cherokee, Southern Regional Medical Center, Wellstar Cobb Hospital, Wellstar Kennestone Hospital, Emory Decatur Hospital, Wellstar Douglas Hospital, Piedmont Fayette Hospital, Floyd Medical Center, Northside Hospital Forsythe, St. Mary's Sacred Heart Hospital, Emory Johns Creek Hospital, Emory University Hospital Midtown, Grady Memorial Hospital, Northside Hospital Atlanta, Piedmont Atlanta Hospital, Wellstar North Fulton Hospital, AdventHealth Gordon, Northside Hospital Gwinnett, Piedmont Eastside Medical Center, Habersham Medical Center, Northeast GA Health System Braselton, Northeast GA Medical Center Gainesville, Piedmont Henry Hospital, Piedmont Newton Hospital, Piedmont Mountainside Hospital, Piedmont Rockdale Hospital, Union General Hospital, Hamilton Medical Center
Augusta (Clarke, Richmond, Walton)	Piedmont Athens Regional Medical Center, St. Mary's Athens, Augusta University Medical Center, Doctor's Hospital of Augusta, Piedmont Augusta Hospital, Piedmont Walton Hospital
Columbus (Carroll, Coweta, Muscogee, Spalding, Sumter, Troup, Upson)	Tanner Medical Center Carrollton, Tanner Medical Center Villa Rica, Piedmont Newnan Hospital, Piedmont Columbus Midtown, St. Francis Emory Healthcare, Wellstar Spalding Regional Hospital, Phoebe Sumter Medical Center, Wellstar West GA Medical Center, Upson Regional Medical Center
Macon (Baldwin, Bibb, Crisp, Houston, Irwin, Laurens, Tift)	Atrium Health Navicent Baldwin, Atrium Health Navicent, Piedmont Macon Medical Center, Crisp Regional Hospital, Houston Medical Center, Irwin County Hospital, Fairview Park Hospital, Tift Regional Hospital
Savannah (Bacon, Bulloch, Camden, Chatham, Coffee, Glynn, Liberty, Toombs, Ware, Wayne)	Bacon County Hospital and Health System, East GA Regional Medical Center, Southeast GA Health System Camden Campus, Memorial Health University Medical Center, St. Joseph/Candler Hospital, Coffee Regional Medical Center, Southeast GA Health System Brunswick Campus, Liberty Regional Medical Center, Meadows Regional Medical Center, Memorial Satilla Health, Wayne Memorial Hospital

Appendix 2: List of Georgia counties without OBGYN units

Appling County
Atkinson County
Baker County
Banks County
Barrow County
Ben Hill County
Berrien County
Bleckley County
Brantley County
Bryan County
Burke County
Butts County
Calhoun County
Candler County
Catoosa County
Charlton County
Chattahoochee County
Chattooga County
Clay County
Clinch County
Columbia County
Cook County
Crawford County
Dade County
Dawson County
Dodge County
Dooly County
Early County
Echols County
Effingham County
Elbert County
Emanuel County
Evans County
Fannin County
Gilmer County
Glascock County
Greene County
Hancock County
Haralson County
Harris County
Hart County
Heard County
Jackson County
Jasper County
Jeff Davis County
Jefferson County
Jenkins County
Johnson County
Jones County
Lamar County
Lanier County
Lee County
Lincoln County
Long County
Lumpkin County
Macon County
Madison County
Marion County
McDuffie County
McIntosh County
Meriwether County
Miller County
Mitchell County
Monroe County
Montgomery County
Morgan County
Murray County
Muscogee County
Oconee County
Oglethorpe County
Paulding County
Peach County
Quitman County
Rabun County
Randolph County
Schley County
Screven County
Stewart County
Talbot County
Taliaferro County
Tattnall County
Taylor County
Telfair County
Terrell County
Towns County
Treutlen County
Turner County
Twiggs County
Walker County
Warren County
Washington County
Webster County
Wheeler County
White County
Wilcox County
Wilkes County
Wilkinson County
Worth County

END NOTES

1. “Georgia Health Planning.” *111-2*, vol. Rule 111-2-2-.01 Definitions, https://rules.sos.ga.gov/gac/111-2-2.
2. Barfield, W. D. and Committee on Fetus and Newborn. “Standard Terminology for Fetal, Infant, and Perinatal Deaths.” *PEDIATRICS*, vol. 137, no. 5, May 2016, pp. e20160551–e20160551. *DOI.org (Crossref)*, https://doi.org/10.1542/peds.2016-0551.
3. Infant Mortality | Maternal and Infant Health | Reproductive Health | CDC. 8 Sept. 2022.https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm.
4. Chou, Doris. *Indicator Metadata Registry Details*. https://www.who.int/data/gho/indicator-metadata-registry/imr-details/4420.
5. Georgia Department of Public Health | OASIS Mapping Tool | MCH Definitions. https://oasis.state.ga.us/gis/TrendableMaps/content/DefBirth.html.
6. Preventing Pregnancy-Related Deaths | CDC. 8 June 2022, https://www.cdc.gov/reproductivehealth/maternal-mortality/preventing-pregnancy-related-deaths.html.
7. Severe Maternal Morbidity in the United States | Pregnancy | Reproductive Health |CDC. 2 Feb. 2021, https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html.
8. “Perinatal Depression.” National Institute of Mental Health (NIMH), https://www.nimh.nih.gov/health/publications/perinatal-depression
9. "Definition of Indicators Prenatal." https://health.mo.gov/data/mica/CDP_MICA/MICH_PreDefinitionofIndicators.html#:~:text=The%20Kotelchuck%20Index%2C%20also%20called,until%20delivery%20(received%20services).
10. Vollset, Stein Emil, et al. “Fertility, Mortality, Migration, and Population Scenarios for 195 Countries and Territories from 2017 to 2100: A Forecasting Analysis for the Global Burden of Disease Study.” The Lancet, vol. 396, no. 10258, Oct. 2020, pp. 1285–306. www.thelancet.com, https://doi.org/10.1016/S0140-6736(20)30677-2
11. Perez-Patron, Maria, et al. Trends in Singleton Preterm Birth by Rural Status in the U.S., 2012-2018. Apr. 2021, https://srhrc.tamhsc.edu/docs/pretermbirth-04.2021.pdf
12. Ely, Danielle M, and Anne K Driscoll. “Infant Mortality in the United States, 2019:Data From the Period Linked Birth/Infant Death File.” National vital statistics reports : from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System vol. 70,14 (2021): 1-18
13. Jang, Caleb J., and Henry C. Lee. “A Review of Racial Disparities in Infant Mortality in the US.” Children, vol. 9, no. 2, Feb. 2022, p. 257. PubMed Central, https://doi.org/10.3390/children9020257
14. Bower, Kelly M., et al. “Experiences of Racism and Preterm Birth: Findings from a Pregnancy Risk Assessment Monitoring System, 2004 through 2012.” Women’s Health Issues: Official Publication of the Jacobs Institute of Women’s Health, vol. 28, no. 6, Dec. 2018, pp. 495–501. PubMed, https://doi.org/10.1016/j.whi.2018.06.002
15. CDC. “Safe Sleep for Babies.” *Centers for Disease Control and Prevention*, 27 Nov. 2018, https://www.cdc.gov/vitalsigns/safesleep/index.html

END NOTES

16. Nove, Andrea, et al. “Potential Impact of Midwives in Preventing and Reducing Maternal and Neonatal Mortality and Stillbirths: A Lives Saved Tool Modelling Study.” The Lancet. Global Health, vol. 9, no. 1, Jan. 2021, pp. e24–32. PubMed, https://doi.org/10.1016/S2214-109X(20)30397-1
17. Armstrong-Mensah, Elizabeth, et al. “Geographic, Health Care Access, Racial Discrimination, and Socioeconomic Determinants of Maternal Mortality in Georgia, United States.” International Journal of Maternal and Child Health and AIDS, vol. 10, no. 2, 2021, pp. 278–86. PubMed Central, https://doi.org/10.21106/ijma.524
18. *Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries*. 18 Nov. 2020, https://doi.org/10.26099/411v-9255
19. “Worldwide Maternal Mortality Rates.” Center for Disease Dynamics, Economics & Policy (CDDEP), https://cddep.org/tool/worldwide-maternal-mortality-rates/
20. Vedam, Saraswathi, et al. “Mapping Integration of Midwives across the United States: Impact on Access, Equity, and Outcomes.” PLOS ONE, edited by Dongmei Li, vol. 13, no. 2, Feb. 2018, p. e0192523. DOI.org (Crossref), https://doi.org/10.1371/journal.pone.0192523
21.Reduce Maternal Deaths — MICH-04 - Healthy People 2030 | Health.Gov. https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/reduce-maternal-deaths-mich-04
22. State Strategies for Preventing Pregnancy-Related Deaths: A Guide for Moving Maternal Mortality Review Committee Data to Action | CDC. 15 June 2022, https://www.cdc.gov/reproductivehealth/maternal-mortality/preventing-pregnancy-related-deaths/state-strategies.html
23. Singh, Gopal K., and Hyunjung Lee. “Trends and Racial/Ethnic, Socioeconomic, and Geographic Disparities in Maternal Mortality from Indirect Obstetric Causes in the United States, 1999-2017.” International Journal of Maternal and Child Health and AIDS, vol. 10, no. 1, 2021, pp. 43–54. PubMed Central, https://doi.org/10.21106/ijma.448
24. Chen, Jiajia, et al. “Assessment of Incidence and Factors Associated With Severe Maternal Morbidity After Delivery Discharge Among Women in the US.” JAMA Network Open, vol. 4, no. 2, Feb. 2021, p. e2036148. DOI.org (Crossref), https://doi.org/10.1001/jamanetworkopen.2020.36148
25. Forno E, Young OM, Kumar R, Simhan H, Celedón JC. Maternal obesity in pregnancy, gestational weight gain, and risk of childhood asthma. Pediatrics. 2014 Aug;134(2):e535-46. doi: 10.1542/peds.2014-0439. Epub 2014 Jul 21. PMID: 25049351; PMCID: PMC4187236
26. Slack, Emma, et al. “Chapter 13 - Obesity and Pregnancy.” Practical Guide to Obesity Medicine, edited by Jolanta Urszula Weaver, Elsevier, 2018, pp. 143–51. ScienceDirect, https://doi.org/10.1016/B978-0-323-48559-3.00013-0
27. Neal, Kirsten, et al. “Obesity Class Impacts Adverse Maternal and Neonatal Outcomes Independent of Diabetes.” Frontiers in Endocrinology, vol. 13, 2022. Frontiers, https://www.frontiersin.org/articles/10.3389/fendo.2022.832678
28. “Obesity in Pregnancy Increases Risk of Lifelong Cardiovascular Disease in Offspring.” ScienceDaily, https://www.sciencedaily.com/releases/2022/05/220512092650.html

END NOTES

29. Increase the Proportion of Women Who Had a Healthy Weight before Pregnancy — MICH-13 - Healthy People 2030 | Health.Gov. https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/increase-proportion-women-who-had-healthy-weight-pregnancy-mich-13
30. CDC. “Gestational Diabetes.” Centers for Disease Control and Prevention, 2 Mar. 2022, https://www.cdc.gov/diabetes/basics/gestational.html
31. Sexually Transmitted Disease Surveillance, 2020. 14 Sept. 2022, https://www.cdc.gov/std/statistics/2020/default.html
32. “Explore Smoking During Pregnancy in the United States | 2021 Health of Women And Children Report.” America’s Health Rankings, https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/Smoking_pregnancy/state/ALL
33. “Perinatal Depression.” National Institute of Mental Health (NIMH), https://www.nimh.nih.gov/health/publications/perinatal-depression
34. “Perinatal Mood and Anxiety Disorders.” Center for Women’s Mood Disorders, https://www.med.unc.edu/psych/wmd/resources/mood-disorders/perinatal/
35. *Intimate Partner Violence |Violence Prevention|Injury Center|CDC*. 28 Mar. 2022, https://www.cdc.gov/violenceprevention/intimatepartnerviolence/index.html.
36. Alhusen, Jeanne L., et al. “Intimate Partner Violence During Pregnancy: Maternal and Neonatal Outcomes.” Journal of Women’s Health, vol. 24, no. 1, Jan. 2015, pp. 100–06. PubMed Central, https://doi.org/10.1089/jwh.2014.4872
37. CDC. “Folic Acid.” Centers for Disease Control and Prevention, 15 June 2022, https://www.cdc.gov/ncbddd/folicacid/about.html
38. “Health Care Workforce Data.” Georgia Board of Health Care Workforce, https://healthcareworkforce.georgia.gov/health-care-workforce-data
39. CDC. “Breastfeeding FAQs.” Centers for Disease Control and Prevention, 4 Aug. 2022, https://www.cdc.gov/breastfeeding/faq/index.html
40. CDC. “Safety in Maternity Care.” Centers for Disease Control and Prevention, 28 Jan. 2021, https://www.cdc.gov/breastfeeding/recommendations/safety-in-maternity-care.html
41. CDC. “2022 Breastfeeding Report Card.” Centers for Disease Control and Prevention, 31 Aug. 2022, https://www.cdc.gov/breastfeeding/data/reportcard.html
42. "Increase the Proportion of Infants Who Are Breastfed Exclusively through Age 6 Months" — MICH-15 - Healthy People 2030 | Health.Gov. https://health.gov/healthypeople/objectives-and-data/browse-objectives/infants/increase-proportion-infants-who-are-breastfed-exclusively-through-age-6-months-mich-15
43. "Increase the Proportion of Infants Who Are Breastfed at 1 Year" — MICH-16 - Healthy People 2030 | Health.Gov. https://health.gov/healthypeople/objectives-and-data/browse-objectives/infants/increase-proportion-infants-who-are-breastfed-1-year-mich-16

END NOTES

44. “Prevalence of Selected Maternal and Child Health Indicators for Georgia, Pregnancy Risk Assessment Monitoring System (PRAMS), 2016–2020.” Georgia PRAMS, Georgia Department of Public Health, https://www.cdc.gov/prams/prams-data/mch-indicators/states/pdf/2020/georgia-prams-mch-indicators-508.pdf
45. CDC. “Facts About Nationwide Breastfeeding Goals.” Centers for Disease Control and Prevention, 3 Aug. 2022, https://www.cdc.gov/breastfeeding/data/facts.html
46. Wright, Raeanne. “Baby-Friendly USA - About.” Baby-Friendly USA, https://www.babyfriendlyusa.org/about/
47. “Georgia 5-STAR Hospital Initiative.” Georgia Department of Public Health, https://dph.georgia.gov/georgia-5-star-hospital-initiative
48. Han, Chengming. “Oral Health Disparities: Racial, Language and Nativity Effects.” SSM - Population Health, vol. 8, June 2019, p. 100436. PubMed Central, https://doi.org/10.1016/j.ssmph.2019.1004
49. Ranji, U., Rosenzweig, C., & Salganicoff, A. (2018, March 13). Women’s Coverage, Access, and Affordability: Key Findings from the 2017 Kaiser Women’s Health Survey. Retrieved July 10, 2018, Retrieved from https://www.kff.org/womens-health-policy/issue-brief/womens-coverage-access-and-affordability-keyfindings-from-the-2017-kaiser-womens-health-survey/
50. Georgia | Medicaid. https://www.medicaid.gov/state-overviews/stateprofile.html?state=georgia
51. “Georgia’s Women of Reproductive Age Face Many Barriers to Health Care.” Center For Children and Families, 10 Aug. 2022, https://ccf.georgetown.edu/2022/08/10/georgias-women-of-reproductive-age-face-many-barriers-to-health-care
52.Markus, Anne Rossier, and Sara Rosenbaum. “The Role of Medicaid in Promoting Access to High-Quality, High-Value Maternity Care.” Women’s Health Issues, vol. 20, no. 1, Jan. 2010, pp. S67–78. DOI.org (Crossref), https://doi.org/10.1016/j.whi.2009.11.012
53. Pregnancy | Medicaid. https://www.medicaid.gov/medicaid/quality-of-care/quality-improvement-initiatives/tobacco-cessation/pregnancy/index.html
54. Georgia House Budget & Research Office. https://www.house.ga.gov/budget/Documents/2019_Session/2019_Policy_Brief_Maternal_Mortality_in_Georgia.pdf
55. Food and Nutrition Service. *U.S. Department of Agriculture*. https://fns-prod.azureedge.us/sites/default/files/resource-files/26wifypart-9.pdf
56. Chock, Linda R., et al. “Insights in Public Health.” Hawai’i Journal of Medicine & Public Health, vol. 73, no. 9, Sept. 2014, pp. 295–300. PubMed Central, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4174695
57. The COVID-19 Vaccine and Pregnancy: What You Need to Know. 17 Feb. 2022, https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/the-covid19-vaccine-and-pregnancy-what-you-need-to-know

END NOTES

58. CDC. “COVID-19 Vaccination.” Centers for Disease Control and Prevention, 11 Feb. 2020, https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/vsafepregnancyregistry.html
59. Razzaghi, Hilda, et al. “Influenza and Tdap Vaccination Coverage Among Pregnant Women — United States, April 2020.” MMWR. Morbidity and Mortality Weekly Report, vol. 69, no. 39, Oct. 2020, pp. 1391–97. DOI.org (Crossref), https://doi.org/10.15585/mmwr.mm6939a2
60. Vaccination Coverage among Pregnant Women | FluVaxView | Seasonal Influenza (Flu) | CDC. 2 July 2021, https://www.cdc.gov/flu/fluvaxview/interactive-pregnant-women.htm
61. "Infant Health - Georgia Connections." https://gafcp.org/wp-content/uploads/2016/08/LBWcompendium.pdf
62. "Guidelines for Perinatal Care." https://www.acog.org/clinical-information/physician-faqs/-/media/3a22e153b67446a6b31fb051e469187c.ashx
63. Gülmezoglu, A. Metin, et al. “Interventions to Reduce Maternal and Newborn Morbidity and Mortality.” Reproductive, Maternal, Newborn, and Child Health: Disease Control Priorities, Third Edition (Volume 2), edited by Robert E. Black et al., The International Bank for Reconstruction and Development / The World Bank, 2016. PubMed, http://www.ncbi.nlm.nih.gov/books/NBK361904/
64. Nurul-Farehah S, Rohana AJ. Maternal obesity and its determinants: A neglected issue? Malays Fam Physician. 2020 Jul 6;15(2):34-42. PMID: 32843943; PMCID: PMC7430315
65. “SB: 338 Increase Postpartum Coverage under Medicaid from Six Months to One Year Following Birth.” Georgia General Assembly, 2022, https://www.legis.ga.gov/legislation/61152

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