

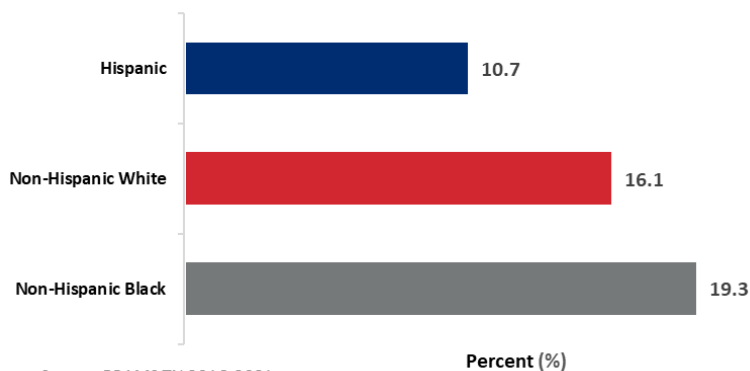
Gestational hypertension (high blood pressure) is diagnosed after 20 weeks of pregnancy or close to delivery and can increase the mother's risk of heart disease later in life.^{1,2} Potential complications for babies born to mothers with high blood pressure during pregnancy include preterm birth, low birthweight, small for gestational age and still birth.^{1,3}

In 2023, Tennessee ranked 39th in the nation for women with high blood pressure between the ages of 18 and 44.⁴ Pregnant women may be at a higher risk of high blood pressure during pregnancy if they have diabetes, a family history of high blood pressure, are under 20 or above 40 years old, or have an immune disorder such as lupus or suffer from kidney disease.¹

Understanding how high blood pressure during pregnancy affects outcomes among Tennessee's pregnant women can help improve those outcomes and the health of women, infants, and Tennesseans overall. This factsheet uses data from the Tennessee Pregnancy Risk Assessment Monitoring System (PRAMS) to explore high blood pressure during pregnancy in Tennessee and how it is related to poor pregnancy outcomes among women with a recent live birth.

Characteristics of Women with High Blood Pressure During Pregnancy.

Figure 1: High Blood Pressure during Pregnancy by Race/Ethnicity Among Women with a Recent Live Birth in Tennessee, 2016-2021



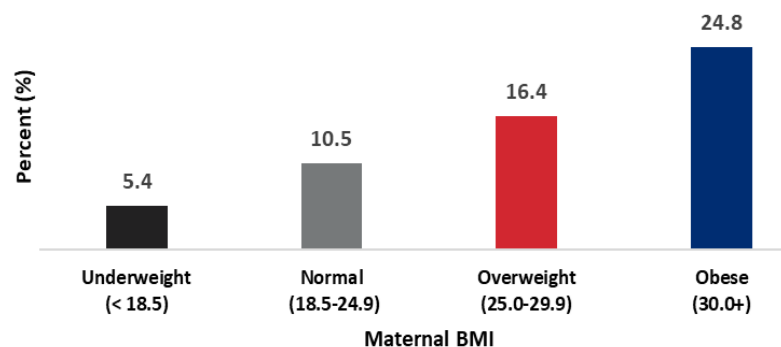
Non-Hispanic Black women more commonly (**19.3%**, figure 1) reported experiencing high blood pressure during pregnancy in Tennessee between 2016-2021. This was followed by Non-Hispanic White (**16.1%**) and Hispanic (**10.7%**) women.

Among Tennessee women, higher weight prior to pregnancy was associated with experiencing high blood pressure during pregnancy.

Compared to those who were a normal weight before pregnancy (**10.5%**), those who were underweight less commonly reported having high blood pressure (**5.4%**, Figure 2).

On the other hand, those who were obese before pregnancy more often reported high blood pressure during pregnancy (**24.8%**, Figure 2).

Figure 2: High Blood Pressure during Pregnancy by Body Mass Index (BMI) Among Woman with a Recent Live Birth In Tennessee, 2016-2021

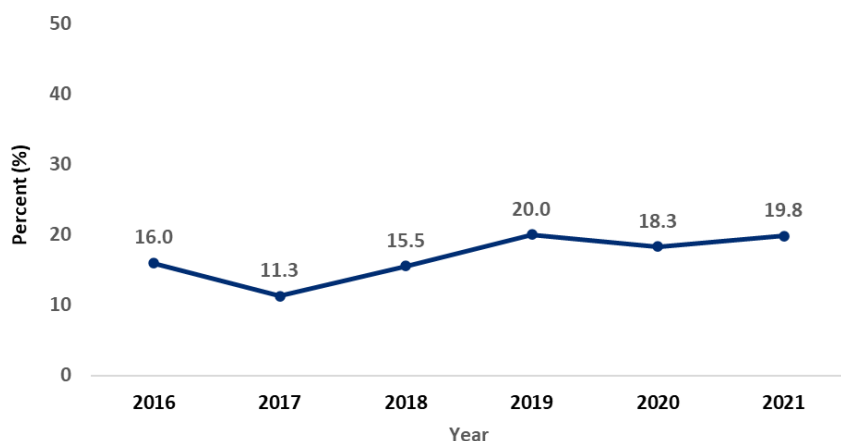




Diabetes before pregnancy was also linked to high blood pressure during pregnancy; About **1 in 3** Tennessee women with pre-pregnancy diabetes also developed high blood pressure during pregnancy

How did high blood pressure during pregnancy change over time in Tennessee?

Figure 3: Reported High Blood Pressure during Pregnancy by Year Among Women with a Recent Live Birth in Tennessee, 2016-2021



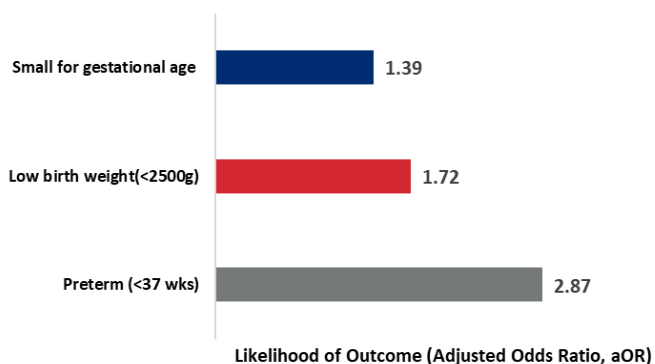
High blood pressure during pregnancy increased from **16%** in 2016 to nearly **20%** among Tennessee women with a recent live birth during 2016-2021.

Poor pregnancy outcomes among Tennessee women with high blood pressure.

Women who had high blood pressure during pregnancy compared to the women who don't were nearly **3 times** as likely to experience preterm birth, nearly **2 times** as likely to deliver low birth weight infants, and **1.5 times** as likely to have an infant who was small for gestational age.

These findings controlled for maternal age, race/ethnicity, maternal BMI, and smoking during pregnancy. The findings for low birthweight also controlled for preterm birth.

Figure 4. Association of High Blood Pressure during Pregnancy with Adverse Pregnancy Outcomes in Women with a Recent Live Birth in Tennessee, 2016-2021



*Findings controlled for Maternal Age, Race/Ethnicity, Maternal BMI, smoking during pregnancy.
Source: PRAMS TN 2016-2021

What is the Tennessee Pregnancy Risk Assessment Monitoring System?

The Pregnancy Risk Assessment Monitoring System (**PRAMS**) is a state-run program that collects information on the experiences, feelings, and health of women with a recent (within 2-6 months at the time of survey) live birth. For questions related to Tennessee PRAMS, contact the **TN PRAMS Coordinator** at tnprams.health@tn.gov.



References

- 1) Cleveland Clinic .High Blood Pressure (Hypertension) During Pregnancy (<https://my.clevelandclinic.org/health/diseases/4497-gestational-hypertension> Accessed 05/20/24).
- 2) Poon LC, Nguyen-Hoang L, Smith GN, et al. *Hypertensive disorders of pregnancy and long-term cardiovascular health: FIGO Best Practice Advice*. Int J Gynecol Obstet. 2023;160(Suppl. 1):22-34. doi: 10.1002/ijgo.14540
- 3) Allen VM, Joseph K, Murphy KE, Magee LA, Ohlsson A. *The effect of hypertensive disorders in pregnancy on small for gestational age and stillbirth: a population based study*. BMC Pregnancy Childbirth. 2004 Aug 6;4(1):17. doi: 10.1186/1471-2393-4-17. PMID: 15298717; PMCID: PMC515178.
- 4) State Summaries Tennessee | 2023 Health of Women and Children Report | AHR. (n.d.). America's Health Rankings. (<https://www.america'shealthrankings.org/learn/reports/2023-health-of-women-and-children-report/state-summaries-tennessee> Accessed 07/05/24



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