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Chronic hypertension (HTN) in pregnancy, defined as elevated blood pressure (BP) prior to 20 weeks gestation, is associated with substantial maternal-fetal morbidity and mortality. It is the most common disorder encountered by obstetricians, and the prevalence is rising in tandem with rates of obesity and advanced maternal age. Current guidelines recommend maintaining BP <160/105 mmHg during pregnancy, however, there is clinical equipoise regarding whether pregnant women with mild to moderate chronic HTN, systolic BP (SBP) 140-159 mmHg and/or diastolic BP (DBP) 90-105 mmHg, should be treated to a lower target. Decisions surrounding antihypertensive medication intensification in pregnancy are primarily based on clinic BP (CBP), which is a poor surrogate for a patient's "true" BP in the naturalistic environment. In comparison, out-of-clinic BP monitoring, including 24-hour ambulatory and home BP monitoring (HBPM), better estimate a patient's long-term BP level. Out-of-clinic BP can also identify white coat (WC) phenomena, which is quantified as a WC effect or categorized as the presence of WC HTN. Although a few small studies suggest the prevalence of WC phenomena in pregnant women ranges from 20% to 60%, there are scarce data on differences between clinic and out-of-clinic BP among pregnant women with chronic HTN.

Over-treatment of chronic HTN during pregnancy may be associated with an increased risk of adverse fetal outcomes. As out-of-clinic BP likely reflects placental perfusion better than CBP, out-of-clinic BP monitoring, to identify or exclude WC phenomena among pregnant women with chronic HTN, may help guide the decision to intensify antihypertensive medication only in women who stand to benefit. HBPM is ideally suited for assessing out-of-clinic BP among pregnant women with chronic HTN. HBPM captures BP over several days, is well tolerated, has excellent reproducibility, and is widely available. Further, home BP monitors have been validated for use in pregnant women. The purpose of the proposed study is to gather preliminary data for a future R01 application to examine whether HBPM can be used to guide the management of chronic HTN during pregnancy and reduce adverse maternal-fetal events, and secondarily whether the identification of women with WC HTN can further target who may benefit from HBPM.