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Introduction

- **Black birthing individuals** have highest rates of cesarean births and 2.6 times more likely to die from pregnancy/childbirth related causes
- **Inequities in maternal mortality** prompt researchers to assess upstream factors contributing to poorer outcomes
- **Health equity initiatives underscore importance of identifying/monitoring disparities** at national, state, and institutional level to implement targeted quality care improvements
- Unplanned cesarean birth may contribute to severe maternal morbidity and be an important modifiable pathway to reduce disparities

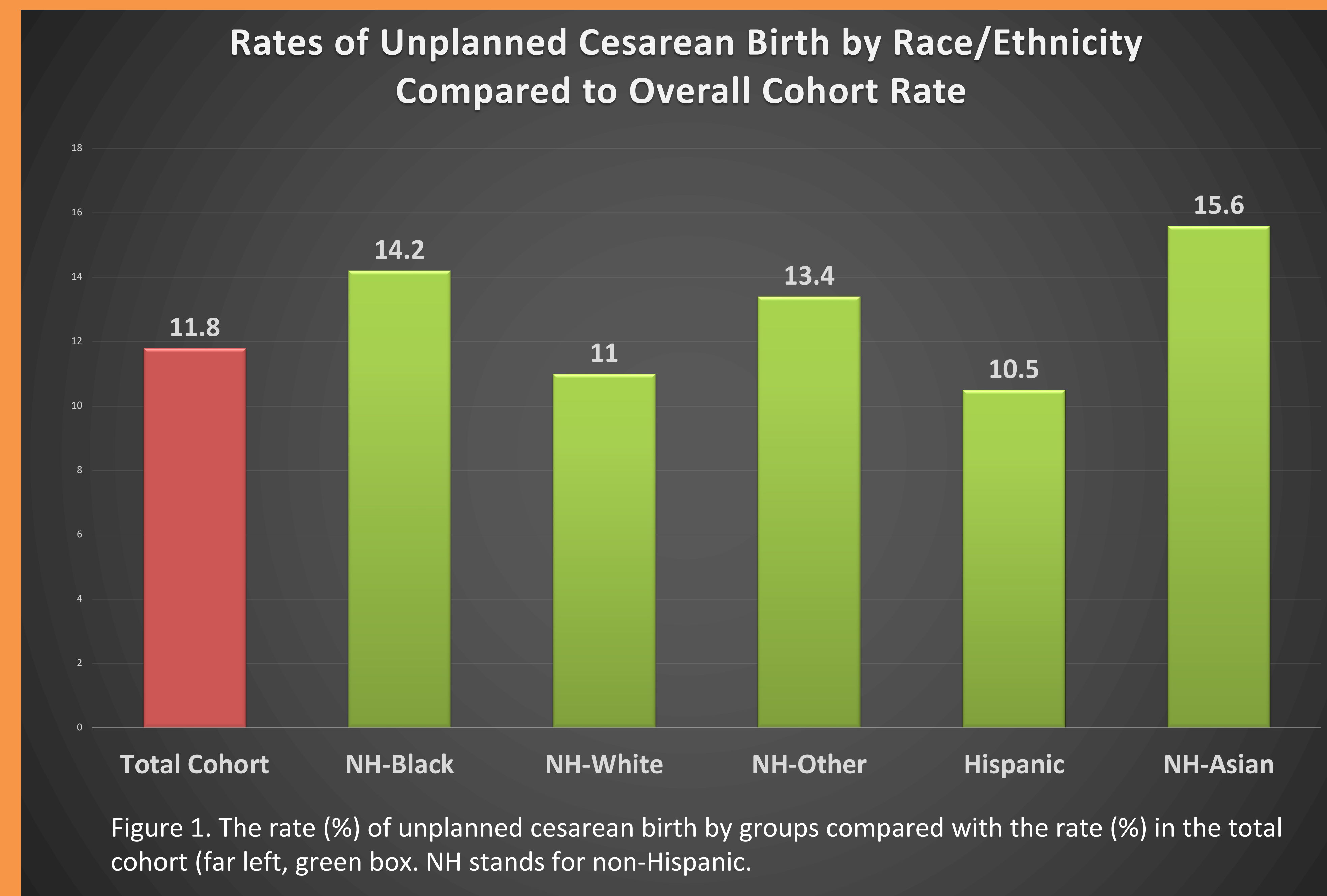
Objectives

- **Primary aim:** Determine differences in rates of unplanned cesarean birth by patient race/ethnicity
- **Secondary aim:** Assess differences in intrapartum care factors by patient race/ethnicity
- **We hypothesize** Black patients experience more frequent unplanned cesarean birth

Methods

- **Secondary analysis** of a retrospective obstetric cohort
- **University of Colorado Hospital, 2013-2018**
 - **Inclusion:** 18-50 yr. old patients with a live, singleton, vertex, full term fetus
 - **Exclusion:** Multiple gestation, fetal anomaly, fetal growth restriction, planned cesarean birth (without attempt at trial of labor), or complications precluding low-risk management (N=7,094)
- **Final nested cohort (n=7,691)**
- **Primary Outcome:** Unplanned cesarean birth
- **Primary Exposure:** Patient self-reported race/ethnicity in mutually exclusive census categories
- **Statistical Analyses:** One-way analysis, χ^2 , and logistic regression

We found differences in unplanned cesarean birth by patient race/ethnicity



These findings suggest future clinical quality studies to improve disparities in outcomes by patient race/ethnicity

Results

- **906 patients** out of 7,961 had an unplanned cesarean birth, **Figure 1**.
- **Non-Hispanic Asian** and **non-Hispanic Black** patients had the highest rates of unplanned cesarean birth **Figure 1**.
- Hispanic patients had the lowest rates of unplanned cesarean birth, **Figure 1**.
- Patients who had a cesarean birth were nulliparous (62%) with higher rates of obesity (16% vs. 11.5%)

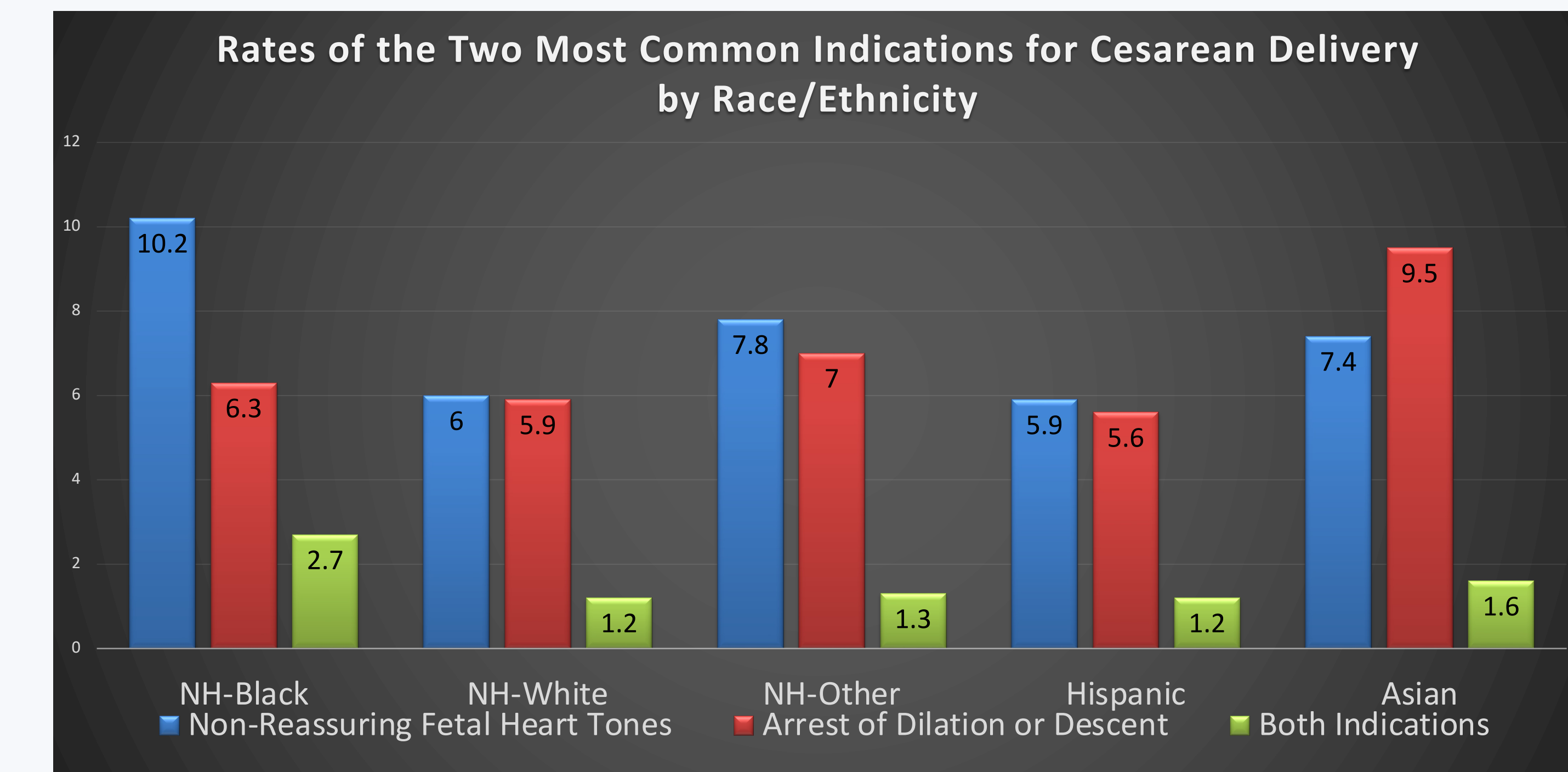


Figure 2. Of the 906 patients who had an unplanned cesarean birth, 525 patients (58%) were indicated for non-reassuring fetal heart tones and 473 (52%) patients indicated for arrest of dilation or descent. 113 patients were indicated for both.

- Non-Hispanic Black patients were more likely to be indicated for a cesarean delivery due to non-reassuring fetal heart tones, **Figure 2**.
- Non-Hispanic Asian patients were most likely to be indicated for a cesarean delivery due to arrest of dilation or descent, **Figure 2**.
- In our adjusted model, non-Hispanic Black patients had the highest odds of unplanned cesarean delivery followed by non-Hispanic Asian, non-Hispanic Other, and Hispanic, **Table 1**.

Adjusted Model for Unplanned Cesarean Birth	
Maternal Characteristics	aOR (95% CI)
Race/Ethnicity	
Non-Hispanic White	1 [Reference]
Non-Hispanic Black	1.85 [1.45 – 2.36]
Non-Hispanic Other	1.49 [1.13 – 1.98]
Hispanic	1.44 [1.15 – 1.80]
Non-Hispanic Asian	1.57 [1.14 – 2.16]

Table 1. Model adjusted for maternal age, marital status, nulliparous status, smoking, insurance status, mild preeclampsia, chronic hypertension, A1 diabetes, gestational diabetes, obesity, asthma, infant birthweight, labor induction/augmentation, provider type.