

Changes in Obstetric Interventions and Gestational Age Distributions in the United States, 1990-2015: A Population Analysis of Official Natality Records by State and Race/Ethnicity

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Abstract

Objective To examine race/ethnic and state variation in changes in US rates of labor inductions and rates of cesarean deliveries between 1990 and 2015, and to examine changes among a low-risk sample. **Design** Population-based, retrospective. **Setting** 50 states and D.C. **Population** All singleton first births in 1990 and 2015 from the National Vital Statistics System Birth Data. **Separate analytic samples** are created for births to Black (36 states, D.C.), Latina (42 states), and White women (50 states, D.C.). **Methods** Calculate joint probabilities of birth by weeks of gestation and by obstetric intervention status. **Main Outcome** Gestational age at birth is measured in weeks and obstetric intervention status was measured (1) vaginal delivery, no induction; (2) cesarean delivery, no induction; and (3) labor induction. **Results** The probability of birth between 37 and 39 weeks gestation increased substantially between 1990 and 2015 among births to U.S. Black, Latina, and White women. The increases were due to increases in labor induction at these weeks gestation and due to downward shifts in the gestational age timing of cesarean deliveries. **Changes in the gestational age distribution did not differ by race/ethnicity, and similar changes in both gestational age and obstetric interventions were observed across U.S. states. The changes were also observed among U.S. women at low-risk for obstetric interventions. Conclusions** Changes in gestational age distributions of U.S. births and their underlying causes are likely national-level phenomena and might not be responding to increases in maternal risk for interventions.

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