

292 WITHDRAWN

294 **DOES EARLY PRENATAL CARE IMPROVE PREGNANCY OUTCOMES IN LOW RISK WOMEN?** WILLIAM GILBERT<sup>1</sup>, DANIELLE DUENAS<sup>1</sup>, BEATE DANIELSEN<sup>2</sup>; <sup>1</sup>University of California, Davis, Obstetrics & Gynecology, Sacramento, CA; <sup>2</sup>Health Information Solutions, Rocklin, CA

**OBJECTIVE:** To determine if early prenatal care in nulliparous women aged 20-29 improves pregnancy outcomes.

**STUDY DESIGN:** California hospital discharge summaries and birth/death certificates were linked and examined for 1992-1997. All nulliparous women aged 20-29 were identified and grouped by race and trimester of care entry into prenatal care. The outcomes examined were: Infant death (ID), Neonatal death (ND), prematurity (<37 weeks), low birth weight (LBW), preeclampsia (PIH), severe PIH, eclampsia (EC), pyelonephritis, and infectious complications of pregnancy (INF). Data was analyzed using chi-square with p values or odds ratios and 95% confidence intervals reported.

**RESULTS:** In non-Hispanic whites, ID (OR 1.9 [1.1,3.2]), <37 weeks (1.7 [1.5,2.0]), LBW (1.6 [1.4,1.9]), and INF (3.4 [1.5,7.3]) were increased (all  $P < .001$ ) in those women who received later prenatal care than the first trimester. In Hispanic women, only <37 weeks (1.5 [1.4,1.52]) and INF (4.6 [3.1,7.0]) were increased with later care than the first trimester. In African Americans, both <37 weeks (2.6 [2.0,3.2]) and LBW (3.3 [2.6,4.2]) were increased with prenatal care starting after the first trimester. Finally, in Asian women ID (2.9 [1.4, 5.8]), <37 weeks (1.4 [1.3,1.6]), and INF (5.2 [1.9,14.1]) were increased with late care relative to first trimester care. Other outcomes were not different.

**CONCLUSION:** In a population of patients usually thought to be relatively low risk (nulliparous aged 20-29), prenatal care starting in the first trimester demonstrated better outcomes and less morbidity and mortality. Certain racial groups (Whites) benefited more from early care while other historically high risk groups (AA), derived less.

293 **THE IMPACT OF THE MODE OF DELIVERY ON THE PERINATAL OUTCOMES OF THE NONVERTEX SECOND TWINS** HUNG WINN<sup>1</sup>, ALEXIS DUNCAN<sup>2</sup>, SHENIZ MOONIE<sup>2</sup>, EROL AMON<sup>1</sup>, TERRY LEET<sup>3</sup>; <sup>1</sup>St. Louis University, Obstetrics, Gynecology and Women's Health, St. Louis, MO; <sup>2</sup>Saint Louis University, SLU School of Public Health, St. Louis, MO; <sup>3</sup>Saint Louis University, St. Louis, MO

**OBJECTIVE:** Controversy exists over the methods of delivering the nonvertex second twins in vertex-nonvertex presentation. The majority of the studies on this subject are retrospective or prospective cohort studies using the hospital-based patient populations. These studies do not represent the general population well and suffer type II errors. The objective of this study is to determine the impact of the modes of delivery on the perinatal outcomes of the nonvertex second twins using a large population-based, cohort study.

**STUDY DESIGN:** This population-based, historical cohort study used the birth and death certificates to identify vertex-nonvertex twin pairs during the period of 1989 - 1999. Pregnancy with major fetal anomalies, abruptio placenta, placenta previa, fetal death, gestational age <24 weeks or birth-weight <500 gm were excluded from the analysis. Stratified analysis and logistic regression were used to calculate the relative risks (RR) and adjustment was made for confounders.

**RESULTS:** Our final sample consisted of 361 twins by cesarean sections and 625 twins by vaginal deliveries. There were no significant differences between the two groups regarding genders, birth weights, and maternal parity and age. Infants delivered vaginally were significantly more likely to need assisted ventilation for less than 30 minutes (cRR = 2.4, 95% CI = 1.2-5.0), have low 1-minute Apgar scores (cRR = 2.2, CI = 1.8 - 2.8), and low 5-minute Apgar scores (cRR 3.5, CI = 1.6 - 7.6), and were at a much greater risk for neonatal death (RR = 7.6, CI = 1.0 - 57.6).

**CONCLUSION:** This study demonstrates that vaginal delivery of the nonvertex second twins, in comparison to cesarean section, is significantly associated with a higher chance for assisted ventilation of less than 30-minute duration and lower one-minute and five-minute Apgar scores. It is also associated with a higher risk for neonatal death. Caution should be exercised in delivering the nonvertex second twins vaginally.

295 **DOES EARLY PRENATAL CARE ALTER MAJOR OUTCOMES IN A YOUNG TEENAGE POPULATION?** SCOTT PUZA<sup>1</sup>, DANIELLE DUENAS<sup>2</sup>, BEATE DANIELSEN<sup>3</sup>, WILLIAM GILBERT<sup>1</sup>; <sup>1</sup>University of California, Davis, Obstetrics & Gynecology, Sacramento, CA; <sup>2</sup>University of California, Davis, Obstetrics and Gynecology, Sacramento, CA; <sup>3</sup>Health Information Solutions, Rocklin, CA

**OBJECTIVE:** To determine the impact of when prenatal care is started on the stillbirth, neonatal death, and preterm delivery rates in the young (11 to 15) teenage population compared to a reference population of women aged 20 to 29.

**STUDY DESIGN:** Data was obtained from linking birth and death certificates with maternal and newborn hospital discharge records from participating hospitals in California from 1992-97. Study population of nulliparous women was defined by maternal age of 11 to 15, race, and trimester when prenatal care was initiated. Reference population was nulliparous, non-Hispanic Whites aged 20 to 29. Data was analyzed using chi-square with P values or odds ratios and 95% confidence intervals (CI) reported.

**RESULTS:** There were 31,232 deliveries from nulliparous women aged 11 to 15 compared to 240,312 deliveries from nulliparous, non-Hispanic White women aged 20 to 29 during the study period. There were more infant deaths (1.03 vs. 0.49%), neonatal deaths (0.61 vs. 0.32%), postneonatal deaths (0.42 vs. 0.17%), and preterm deliveries (15.36 vs. 8.3%) in the study group compared to the reference group with all P values <.001. Analyzing the data by trimester when prenatal care was first initiated and controlling for ethnic group, there were no significant changes in the odds ratios for all of the previously reported outcomes when compared to the reference group except for the preterm delivery rate in young Hispanics. The odds ratios were 2.02 (CI, 1.87-2.18) and 2.74 (CI, 2.5-3.0) for the first and second trimesters, respectively.

**CONCLUSION:** It appears that early prenatal care has no impact on infant/neonatal mortality and limited impact on the preterm delivery rate in the young teenage population. Young Hispanics appear to benefit the most from the initiation of prenatal care in the first trimester with regard to preterm delivery.