

MATERNAL OCCUPATION AND THE RISK OF PRETERM BIRTH AND LOW BIRTH WEIGHT IN LOS ANGELES COUNTY, CALIFORNIA

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Background and Aims: Several studies from different countries have linked certain maternal occupations during pregnancy with adverse birth outcomes, though some reports showed no associations. We investigated risks associated with a range of maternal occupations for preterm birth (PTB) and low birth weight (LBW) in a population based nested case-control study in Los Angeles County.

Methods: From 58,316 birth records for children born in 2003 to mothers residing in 111 Los Angeles County zip codes, we selected all cases of LBW (<2500 g) and PTB (<37 weeks completed gestation) and an equal number of randomly sampled matched controls (weight \geq 2,500g and full-term). We conducted a survey 3 to 6 months after birth with 2,543 of the 6,374 women originally sampled from the cohort asking about their primary job (defined as the job where she worked the longest and for the most hours per week during pregnancy); other demographic and pregnancy-related variables were collected by survey and from birth certificates. We classified women according to occupation with a coding scheme adapted from the U.S. Census Occupational Category Codes. Effects of various occupational exposures on PTB and LBW were examined using multivariable logistic regression models.

Results: Preliminary findings indicate that most examined occupational categories were not associated with an increased risk for PTB and LBW. However, there was some suggestion that nurses may have higher odds of preterm delivery compared to clerks (presumably low exposed) with an odds ratio of 2.50 (95% CI 0.95, 6.60), adjusted for relevant confounders.

Conclusion: Preliminary findings suggest that in our sample the odds for PTB or LBW were not increased for the investigated occupations during pregnancy. This may indicate a 'healthy pregnant worker' effect.