

**Parity-Associated Body Weight in the U.S.: Modification by Sociodemographic and Behavioral Factors in NHANES III.**

Soo-Kyung Lee\*, Jeffery Sobal, Edward A Frongillo, Jr. Wendy S Wolfe, Christine M Olson. *Division of Nutritional Sciences, Cornell University*

This study examined the association between parity and body weight and how this relationship was modified by sociodemographic and behavioral factors. A U.S. national sample of 5872 white and black women from the Third National Health and Nutrition Examination survey (NHANES III, 1989-1994) were used to assess, using multiple linear regression, how body weight (as Body Mass Index, BMI) was related with parity and how the relationship interacted with seven sociodemographic and seven behavioral factors. After controlling for sociodemographic factors, the amount of weight associated with parity averaged about 0.8 kg per child. However, parity-associated weight differed by subpopulations and socio-demographic and behavioral factors. In older white women, parity-associated weight was lower in smokers, but greater in those with vigorous physical activity. In younger white women, the amount of weight associated with parity was lower with higher income women and smokers, but greater in those with higher education and in those who were both unmarried and living in rural areas. Among older black women, the amount of weight associated with parity was larger in those living in rural than urban areas, in those with higher education, and in working women, but lower in unmarried working women. In younger black women, parity-associated weight was greater in those who were unmarried and those who were working. Compared to results from NHANES II, effects of being a smoker, living in a rural area, and being employed remained significant in NHANES III, but the positive effects of physical activity in NHANES II were not found. This results suggest that sociodemographic and behavioral factors modify the relationship between parity and body weight. This information may be valuable to identify target populations and to develop interventions to prevent postpartum weight retention.●