

A prospective study (n=234) was conducted to assess nutrient contribution from eggs, prenatal weight gain and birth outcomes among low-income Latinas. The specific objectives of this research were to: 1) to demonstrate the value of formative research in the development of an egg nutrition fact sheet and egg food frequency questionnaire, 2) to document differences in food group intake between low income Puerto Rican and Non-Puerto Rican pregnant Latinas 3) to document egg nutrient contribution to the overall nutrient intakes of pregnant Latinas, and 4) to examine the associations of egg intake and prenatal weight gain on infant birth weight, length at birth and head circumference.

We hypothesized that: (a) eggs contribute with a significant amount of essential nutrients consumed by pregnant Latinas, and (b) higher egg intake during pregnancy will be associated with gestational weight gain followed by more optimal birth outcomes.

A single 24-hour dietary recall was collected to assess food group intake at baseline. The Minnesota Nutrient Database was used to convert the foods from the 24-h recall into food group serving counts. The key dependent variables for this study were: 1) pre-gravid BMI; 2) prenatal weight gain; and 3) birth outcomes (infant weight and length at birth, and head circumference). The independent variables considered for this study were: 1) egg intake; 2) energy intake; and 3) maternal socio-demographic characteristics. Chi-square cross tabulation analyses was used to examine categorical variables. Independent sample t-test was used to analyze continuous variables. Binomial and multinomial regression analyses were conducted to determine the predictors of pre-gravid BMI, maternal weight gain during pregnancy, and pregnancy outcomes.

Participants were in their second (58%) to third pregnancy trimester (36%), mean age was 24 ± 5 y and 69% were of Puerto Rican descent. Mean length stay in the US was 15 ± 9 y for Puerto Ricans and 5 ± 5 y for Non-Puerto Rican Latinas. Non-Puerto Rican Latinas consumed healthier diets than Puerto Ricans. Eggs contributed significantly to nutrient intakes including vitamin A, DHA, cholesterol and selenium. Pre-gravid BMI was significantly associated with maternal weight gain during pregnancy. Prenatal weight gain was associated with birth outcomes. Finally, egg consumption during pregnancy was significantly associated with infants' head circumference (Figure).

Predictors of Head Circumference

