

**Title:** Periconception Diet does not Vary by Duration of US Residence for Mexican Immigrant Women

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## **Abstract**

This cross-sectional study assessed the influence of duration of residence in the United States on periconception dietary intake of pregnant Mexican immigrant women, using baseline data from Healthy Mothers on the Move, a randomized control trial conducted with 234 women from 2004 to 2006 in Detroit, MI. Average maternal age was 27.3 ± 5.2 years (range 18 to 41 years) with 5.99 ± 4.76 years of US residence (range 0 to 36 years). Women's usual dietary intake during the past 12 months was recorded on a validated food frequency questionnaire (17.3 weeks average gestation). Intakes of selected micronutrients, macronutrients, and food groups were compared by US residence categories (≤ 5, 6 to 10, or ≥ 11 years) using analysis of covariance. The percent of women with intakes below the Estimated Average Requirement and the percent not meeting US dietary guidelines were calculated. There was no association between dietary intake and duration of US residence in this population. Percentages of women with dietary intake below the Estimated Average Requirement were: 12.0% for folate, 7.7% for vitamin C, 23.9% for calcium, 11.2% for protein, and 5.1% for carbohydrates. US dietary guidelines were not met for fruit by 17.5% and for vegetables by 74.8% of women. Typical diets were high in saturated fat and cholesterol. Of the 2,195 kcal average daily energy intake, 25% came from saturated fats, trans fats, and added sugars that may replace nutrients important for healthy fetal growth and development and women's health. Interventions to improve intake before, during, and after pregnancy are important in this population, regardless of duration of US residence.