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ORIGINAL RESEARCH COMMUNICATION

Race-ethnicity differences in folic acid intake in women of childbearing age in the United States after folic acid fortification: findings from the National Health and Nutrition Examination Survey, 2001–2002[1,2,3]

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Background: Neural tube defects are serious birth defects of the brain and spinal cord. Up to 70% of neural tube defects can be prevented by the consumption of folic acid by women before and early during pregnancy.

Objective: The objective was to examine folic acid intake in women of childbearing age in the United States.

Design: We analyzed nutrient intake data reported by 1685 nonpregnant women aged 15–49 y who participated in the National Health and Nutritional Examination Survey, 2001–2002.

Results: The adjusted geometric mean consumption of folic acid from fortified foods was 128 μg/d (95% CI: 123, 134 μg/d) in nonpregnant women. Eight percent (95% CI: 5.8%, 11.0%) of nonpregnant women reported consuming ≥400 μg folic acid/d from fortified foods. This proportion was lower among non-Hispanic black women (5.0%) than among non-Hispanic white (8.9%) or Hispanic (6.8%) women. A smaller percentage of non-Hispanic black (19.1%) and Hispanic (21%) women than of non-Hispanic white women (40.5%) consumed ≥400 μg folic acid from supplements, fortified foods, or both, in addition to food folate, as recommended by the Institute of Medicine to reduce the frequency of neural tube defects.

Conclusions: Most nonpregnant women of childbearing age in the United States reported consuming less than the recommended amount of folic acid. The proportion with low daily folic acid intake was significantly higher in non-Hispanic black and Hispanic women than in non-Hispanic white women. At the present level of folic acid fortification, most women need to take a folic acid–containing dietary supplement to achieve the Institute of Medicine recommendation.

Key Words: Folic acid • fortification • National Health and Nutrition Examination Survey • NHANES • neural tube defects • race-ethnicity differences • women of reproductive age

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