

Multivitamin Use Before Pregnancy Among American Indian Mothers

Taking a multivitamin with folic acid daily before pregnancy can help prevent certain birth defects.¹ Healthy People (HP) 2020 set a goal to increase the percent of women who take a daily multivitamin/folic acid prior to pregnancy to 33.1%.²

In Oklahoma, between 2009-2011, 16.1% of American Indian mothers took a daily multivitamin prior to pregnancy, compared to 26.5% of all other mothers. For this Brief, mothers who were not classified as American Indian were grouped together as other.

Twenty-seven percent of American Indian mothers took a multivitamin at least once per week prior to pregnancy compared to 38.1% of all other mothers in the state (Figure 1).

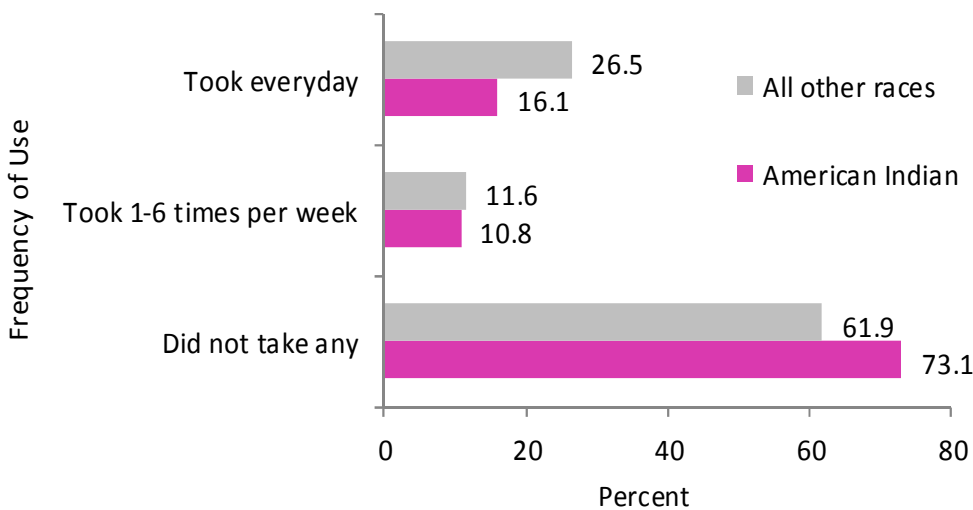
Among American Indian mothers, rates of any multivitamin consumption varied significantly by maternal age, marital status, income, Medicaid status, and education. Rates of multivitamin use among American Indian mothers were:

- 51.8% for mothers 30 years of age or older vs. 21.6% mothers 20-29 years old
- 34.4% for married mothers vs. 20.2% unmarried mothers
- 19.7% for mothers with Medicaid vs. 47.7% for those without
- 39.5% for mothers with more than a high school education vs. 17.8% with a high school diploma

OKLAHOMA FACTS

- 16.1% of American Indian mothers took a vitamin every day prior to pregnancy.
- 26.9% of American Indian mothers took a multivitamin before pregnancy, at least some days.
- More than half of American Indian mothers 30 years of age or older took a multivitamin before pregnancy.
- Fewer than 1 in 5 American Indian mothers with a high school education took a multivitamin before pregnancy.
- American Indian mothers with intended pregnancies were not significantly more likely to take a multivitamin before pregnancy than American Indian mothers with unintended pregnancies.
- 1 in 5 American Indian mothers who were unmarried took a multivitamin before pregnancy.

Figure 1. Prevalence of Multivitamin Use Comparing American Indian Mothers to Mothers of Other Races, PRAMS 2009-2011



Among all other mothers in the state, only two additional variables, maternal body mass index (BMI) status and pregnancy intention, were statistically significantly different among those who did and did not take a multivitamin prior to pregnancy.

Mothers, of other races, who were classified as overweight or obese (BMI > 29) were significantly less likely to take a multivitamin compared to normal or underweight mothers (34.7% vs. 41.9%). There was not a significant difference for American Indian mothers by BMI status.

Multivitamin consumption did not significantly differ between American Indian mothers with unintended pregnancies and intended pregnancies (Figure 2). However, there was a significant difference in use among other Oklahoma mothers between those with intended and unintended pregnancies.

No significant differences were found between women with and without previous live births, among either American Indian or other mothers.

American Indian and other mothers in Oklahoma are not meeting the HP

2020 goal for daily multivitamin/folic acid use. Almost three in four American Indian mothers take no multivitamin at all before pregnancy (Figure 1). In order to improve consumption rates, additional outreach efforts are needed for American Indian women, before pregnancy.

Preconception and interconception health with American Indian women should focus on promoting daily folic acid/multivitamin use among women who are younger, have lower household incomes, and have lower levels of education. American Indian women planning a pregnancy and those in between pregnancies need targeted counseling and information on the benefits and appropriate dosage of daily multivitamin use prior to pregnancy.

References:

1. March of Dimes. Folic Acid. Accessed 2/27/2014. Available at www.marchofdimes.com/hhbh_syndication/173_769.asp
2. Healthy People 2020. Preconception Health and Behaviors, MICH-16. Accessed 2/26/2014. Available at www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26.

“ I have been taking prenatal vitamins for about eight years now. I take them as my daily multivitamin.”

- PRAMS Mom

ACKNOWLEDGEMENTS

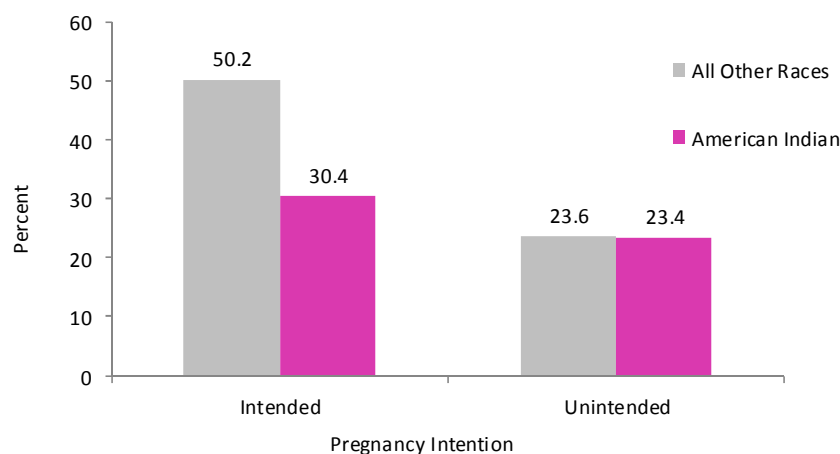
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PRAMS is a population-based surveillance system about maternal behaviors and experiences before, during, and after pregnancy. Approximately 250 mothers are selected to participate in Oklahoma each month. Mothers are sent as many as three mail questionnaires seeking their participation with follow-up phone interviews for non-respondents. Information included in the birth registry is used to develop analysis weights that adjust for probability of selection and non-response. Prevalence rates were calculated and the potential risk factors were identified using the Cochran-Mantel-Haenszel Chi-Square (χ^2) Test. PRAMS had 8,834 respondents for 2009-2011 for a response rate of 68.3%.

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Figure 2. Prevalence of Any Multivitamin Use Among American Indian and All Other Mothers, by Pregnancy Intention Status, PRAMS 2009-2011



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