Does Being Diagnosed As Anemic in Early Pregnancy Have an Impact on the Household Expenditure for Food? Evidence From a Maternal Cohort in Rural Sri Lanka

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Objectives: Anemia, commonly attributed to nutritional issues, affects more than one third of pregnancies worldwide. Early screening for anemia in pregnancy aims to provide appropriate treatment, including lifestyle modifications, to prevent the morbidity and mortality of the condition on both mother and the baby. We investigated the impact of the "diagnosis of anemia" in early pregnancy on household food expenditure in rural Sri Lanka.

Methods: All first-trimester pregnant women registered at the public health midwives in Anuradhapura district, Sri Lanka, during the third quarter of 2019 were invited to participate in a pregnancy Cohort. Hemoglobin level was assessed at the baseline. Self-administrated questionnaires were used to collect data on the household economic status, household food expenditure, and pregnancy-related food expenditure during the first (T1), second (T2), and third (T3) trimesters. Descriptive statistics and Mann-Whitney U tests were used for data analysis.

Results: The mean (SD) age of participants (n = 1573) was 28.3 (5.6) years and 21.2% (n = 295) were employed. Mild (Hb < 100g/l) and moderate anemia (Hb < 110g/l) were observed in 11.1% (n = 161) and 3.5% (n = 51), in T1 respectively. Monthly household income (median [IQR]) = USD 226.8 [170.09–328.84]) was not significantly different in women with and without anemia (U = 92,365.00, p = 0.85). The median (IQR) household food expenditure was USD 56.70 (39.69–85.04) in both T1 and T2, and the pregnancy-related food expenditure in T2 and T3 were USD 11.34 (5.67–17.01) and USD 8.50 (5.24–11.34), respectively. There was no statistically significant difference in the household food expenditure during T1 (p = 0.85) and T2 (p = 0.98), and the pregnancy-related food expenditure in T2 (p = 0.09) and T3 (p = 0.62) between anemic and non-anemic women. The percentage of household food expenditure spent as pregnancy-related food expenditure in T2 (p = 0.65) and T3 (p = 0.25) were also not significantly different between anemic and non-anemic women.

Conclusions: Household and pregnancy-related food expenditure were not significantly different in women diagnosed with anemia in early pregnancy. Possible explanations for this observation, including effectiveness of nutritional education given to anemic pregnant women, need to be explored further.

Funding Sources: AHEAD Operation, Ministry of Higher Education, Sri Lanka.