ABSTRACT

PRIHANANTO, The Effect of Supplementary Food Fortified with Multi micronutrients on Nutritional Status of Pregnant Mothers and Birth Weight. Supervised by RIMBAWAN, MADE ASTAWAN, AHMAD SULAEMAN, ANDIAJA.

Nutritional problems, on pregnant women in Indonesia cover not only macronutrients but also micronutrients deficiencies like Fe and Vitamin A. Nutritional improvement strategy through supplementary fortified foods for pregnant women needs be carried out to improve nutritional status of mothers and infant birth weight. The objective of this study was to analyze the effect of micronutrients fortified foods on pregnant mothers' nutritional status and infant birth weight. This study was conducted in three sub-districts of Bogor Districts namely: Leuwiliang, Leuwisadeng and Ciamea. Total of 210 pregnant mothers from these sub-districts were selected for this study. From 210 pregnant mothers, 70 pregnant mothers were selected to receive fortified foods with multi-nutrients i.e. iron, iodine, zinc, folic acid, vitamin C, and vitamin A, 70 pregnant mothers received non fortified foods and 70 pregnant mothers did not receive any experiment food (control). Product selected as intervention carrier consist of vermicelli, milk, and biscuit. The duration of food intervention was 6 months.

The results of the study showed: (a) if compared to control group, intervention could reduce prevalence of anemia as much as 30.0%, 27.3% for vitamin A deficiency, and 32.3% for ferritin deficiency; (b) if compared to unfortified group, intervention could reduce prevalence of anemia as much as 28.0%, 1.6% for vitamin A deficiency and 32.3% for ferritin deficiency; (c) intervention could maintain Hb status; (d) Average total weight gain during pregnancy were not significantly different between group: 9.3 kg for fortified group, 9.7 kg for not fortified group and 8.7 kg for control group, (e) infant birth weight higher than 2.5 kg reached 100% in the fortified group and 94.7% in the unfortified group while in the control group was 96.4%.

These findings suggest that supplementary food fortified with multi micronutrients during pregnancy lead to better nutritional status of pregnant mothers but did not lead to greater infant birth size than did not fortified food supplementation and control.

Keywords: Multi Micronutrients, anemia, ferritin, retinol, infant birth weight, weight gain pregnant mother