

Nutritional status and food consumption of 20-40years old females in the different ecological environment of lowland Laos

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1. Objectives

Objectives of this study were to clarify nutritional status, diet and food access of females of pregnant age, 20-40years old in the different environment of lowland of Laos.

2. Methods

Study areas were Lahanam area in Sonkhon district and Huay San area in Xepon district in Savannakhet province, Lowland Laos. The surveys were conducted in August 2005 (rainy season), February 2006 (dry season) in Lahanam, and September 2006 (rainy season), 2008 March (dry season) in Huay San. Subjects were females aged 20-40 years old, 113 in Lahanam and 75 in Huay San in the both seasons. The indicators of nutritional status were anthropometrical measurement and hemoglobin levels. Food consumption, nutrients intake and food access were calculated from three days dietary records by semi-weighing method. Food and nutrition environment such as natural resource and foods from market economy were studied.

3. Results

1) Prevalence of both of obesity and underweight was slightly higher in Lahanam area than Huay San area. Prevalence of anemia was significantly higher in Lahanam area.

2) There weren't significant difference between the areas in energy, protein, fat, carbohydrate intake levels. The intake levels of micronutrients, including iron and Vitamin A, and consumption of green vegetables were significantly lower in Lahanam area.

3) The subjects living in Huay San obtained more foods from forest, farm/garden, river, and exchange among villagers than the subjects living in Lahanam area. On the other hand, the

people living in Lahanam area obtain more foods from shop in the village.

4) Higher household income, more number of shops, less forest areas, and less slash and –burn garden areas were found as food environmental factors in Lahanam area.

4. Discussion

We found double burden of malnutrition such as obesity and micronutrients deficiency in the rural area of lowland of Laos under economic development. The prevalence of anemia was higher in the area where more economically developed but there were less forest area than in the area where less economically developed but there were more forest area. From these results, we made hypothesis that economical development with less access to natural resources is a cause of micronutrients deficiency in this area. Further research on the source of micronutrients intake needed to confirm the relationships between natural resource and people.

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