

A47 Factors associated with vitamin D intake among preadolescent boys and girls: a secondary analysis of PREBONE-Kids study

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Studies have reported poor vitamin D status among adolescent children in Malaysia, however limited data is available to describe the contribution of vitamin D intake. This study aims to assess the vitamin D intake of 242 preadolescent school children (aged 9-11 years old) in Kuala Lumpur and to differentiate the vitamin D intake of participants according to their 25-OH vitamin D status. Vitamin D intake were analysed from 7-day diet histories using various food composition data from Singapore and USDA, as well as nutrition facts label from processed foods. Serum 25-OH vitamin D was measured using LC MS-MS method. Results showed that the mean 25-OH vitamin D levels of boys were higher than girls (50.4 ± 13.7 vs 36.8 ± 11.9 ; $p < 0.001$). Boys had significantly higher median vitamin D intake compared to girls ($1.24 \mu\text{g/day}$ vs $0.93 \mu\text{g/day}$; $p = 0.023$) although both groups had intakes well below the RNI recommendation. The main contributor of vitamin D intake were fortified cocoa-based and malted drinks and dairy products. Most vitamin D intakes were consumed at breakfast and during snacks. These findings indicate the need to increase public health awareness on vitamin D rich food sources and the consideration for mandatory vitamin D fortification in food products to improve vitamin D status of Malaysian preadolescents.