



ABSTRACT

Optimizing nutrients intake of children in Indonesia: Dietary modelling approach

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Received: 4 October 2024
Accepted: 7 October 2024
Published: 18 October 2024

Link to DOI
[10.25220/WNJ.V08.S1.0012](https://doi.org/10.25220/WNJ.V08.S1.0012)

Citation: Sunardi D., Wibowo Y., Optimizing nutrients intake of children in Indonesia: dietary modelling approach, World Nutrition Journal.2024 October 18, 8(S1): 13.



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Website
<http://www.worldnutrijournal.org/>

Nutri Symposium 2024: Nutrition advancement in healthcare from conception to well-aged perfection: Unveiling nutrition's impact - Speaker

The prevalence of obesity is rising in high-income countries, while low-income populations face the triple burden of malnutrition. Improving dietary intake is crucial in addressing these issues. Diet optimization or diet modelling have emerged as valuable tools for identifying the optimal combination of foods that meet daily nutritional requirements by incorporating nutrient-dense options into the diet. Sweetened condensed milk (SCM) was commonly consumed by children under 5 years old, despite its high sugar content. This product should ideally be marketed as a topping for desserts or mixed dishes, rather than as a child's milk. The present dietary modelling demonstrated that children who consumed Young Child Milk (YCM) had a lower prevalence of inadequate intake of iron, zinc, vitamins A, C, and D across different age groups compared to children consumed SCM. Substituting SCM with YCM in our modelling analysis resulted a reduction in the prevalence of inadequate iron intake by 63% in children aged 3-4 years and 31% in children aged 1-2 years, and reduced prevalence of vitamins A and folate (range 20-40%) and vitamins D and zinc (range 40-50%) in children aged 1-4 years. Through a dietary modelling approach, replacing SCM with YCM significantly improved nutritional intake of children 1-4 years of age in Indonesia.

Keywords: diet modelling, nutrition gap

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