



World Food Programme

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# Nutrition of School-Aged Children: Effects of COVID-19 and Opportunities for Enhancing the Nutrition Focus under UKS/M in Indonesia

## Executive Summary



KEMENTERIAN KOORDINATOR BIDANG  
PEMBANGUNAN MANUSIA DAN KEBUDAYAAN  
REPUBLIK INDONESIA



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Preceding the COVID-19 pandemic, Indonesian children ages 5 to 11 already faced a triple burden of malnutrition. Previous studies suggested an increased risk of malnutrition among school children during the pandemic due to the reduced ability for families to meet nutrient needs, as well as an increased risk of weight gain due to higher consumption of calorie-dense comfort foods and increased “screen time”. As schools progressively started to reopen by September 2021, the role of school health programmes (*Usaha Kesehatan Sekolah/Madrasah*, or UKS/M) was seen as increasingly important for building and maintaining healthy lifestyle habits necessary for quality

education and learning outcomes. Therefore, with support from Cargill, the World Food Programme (WFP) contracted the Southeast Asian Ministers of Education Organization Regional Centre for Food and Nutrition (SEAMEO RECFON) to conduct a study on the effects of COVID-19 on the nutrition of school-aged children and the opportunity for enhancing the nutrition focus under UKS/M in Indonesia. The main objective of the study is to identify factors that have had a positive and/or negative impact on the consumption of healthy diets by girls and boys ages 6-12 enrolled in school during the COVID-19 period of school closures and hybrid learning. Specifically, the study aims to: 1) assess the effects of school

closures on food consumption patterns, knowledge and practices of school-aged children in Indonesia; 2) identify existing policies and programmes that ensure good dietary practices of school-aged children, as schools started to reopen for face-to-face learning; 3) explore the relevance and effectiveness of existing nutrition education interventions for protecting and promoting healthy diets among primary school-aged children in the context of the COVID-19 pandemic; and 4) recommend strategic options and pathways of change that will be catalytic to improved, adaptive UKS/M nutrition education modalities within the context of COVID-19 and other disasters. The study led to recommendations to strengthen the mainstreaming of nutrition education into the UKS/M programme.

## Methodology

This study used a mixed-methods approach that included a survey, in-depth interviews (IDIs), focus group discussions (FGDs), field observation and a desk review. Data collection was conducted in three districts (North Lampung, Pasuruan and Kupang) in March 2022. It involved a survey of 660 primary school children in grades 4–6 to track their understanding of nutrition, current food consumption and changes to consumption patterns from before the pandemic. The IDIs and FGDs elaborated information on knowledge and attitude towards children's nutrition practices; changes in children's food consumption; supporting factors and barriers for good nutrition practices, implementation of the UKS/M programme; exposure to necessary policies, programmes and guidelines; experiences and reported effective nutrition education activities; and proposed strategies to improve UKS/M, including adoption of nutrition education. The field observation focused on existing facilities and the food environment in and around schools. The desk review focused on relevant government policies, regulations, strategic plans, programme guidance and reports that support balanced nutrition practices in school-aged children in Indonesia.

## Findings

**Objective 1:** The effects of school closures on food consumption patterns, knowledge and practices of school-aged children in Indonesia found that more than half of the children surveyed had their food consumption changed during the COVID-19 pandemic. They ate less fruit, red meat/poultry

and milk/dairy products. On the other hand, they ate carbohydrates and vegetables more frequently. Factors underlying the change in dietary practices were increased attention to health and nutrition during the pandemic, reduced household income, implementation of movement control order and different learning schemes. Consumption of sugary drinks increased during the pandemic; during a one-week recall, almost 40 percent of children surveyed had consumed sugary drinks. Sugary drinks were widely available around schools. In terms of knowledge, the children had insufficient knowledge about specific good dietary practices particularly related to breakfast, food variety and food safety. Children, teachers and parents were not familiar with the concepts of Balanced Nutrition (*Gizi Seimbang*) nor My Plate (*Isi Piringku*). Teachers and parents had limited knowledge and access to nutrition information, which reduced their ability to support children in good dietary practices.

**Objective 2:** The existing national policies and programmes that support good dietary practices of school-aged children were available, yet insufficiently addressed food quality, approach and sensitization. Food environment policies focus instead on food safety, sanitation and hygiene. Awareness of the policies, strategies and programmes is low and coordination limited, especially at the sub-national level. A family-based approach to reach school-aged children was still limited. The National Action Plan for Strengthening School-Aged Children and Adolescents Wellbeing (RAN PIJAR) 2022–2024 was found promising, but, as it is still in its infancy, no concrete results were observed. As for UKS/M, it focused on hand-washing during the pandemic with much less about nutrition. Other challenges for UKS/M programme implementation were less supportive food environments at school; inadequate data on dietary practices among school children; lack of access and use of health screening results; and an overall lack of resources, coaching and coordination.

**Objective 3:** Nutrition education is crucial for protecting and promoting healthy diets among primary school-aged children in the context of the COVID-19 pandemic. This study observed that nutrition education activities were not implemented in a structural manner, but those that were implemented were relevant to the observed gaps in nutrition behaviour of school-age children. Nonetheless, the issue of less healthy food environments in and around schools was not addressed.

**Objective 4:** The strategic options and pathways of change to adapt nutrition education to current education modalities within the context of COVID-19 and other disasters, as proposed by UKS/M key stakeholders, should prioritize: (a) health screenings and official engagement through heads of districts; (b) raising awareness, sharing lessons learned and coordination; (c) capacity building of all stakeholders; and (d) strengthening monitoring as a way to strengthen the UKS/M, including nutrition education. Challenges listed included limited resources and materials, staff turnover, non-mandatory nutrition education, minimal parent engagement and lack of interest of children.

## Conclusions and Recommendations

The COVID-19 pandemic triggered changes in children's food consumption. Although there was increased attention to health and nutrition during COVID-19 and more time to eat at home due to different learning schedules, this did not always translate into healthier food consumption. Some of the reasons for this include reduced family income and unfavourable food environments. Moreover, the children, as well as parents and teachers, displayed limited knowledge of good dietary practices.

Although regulations and programmes to improve children's nutritional status exist, in practice they do not actually produce positive effects because they are insufficiently implemented, monitored and evaluated. Schools and parents were aware of what factors were needed for nutrition education activities to be effective, and while some activities have been implemented, they were very limited and less structured than intended. Some strategies were proposed by the UKS/M stakeholders to improve nutrition education, including prioritization for school-aged children, capacity building, awareness raising and strengthening programme monitoring. The results indicated the need to strengthen existing policies and programmes to support school-aged children in implementing good dietary practices.

### The recommendations from this study are:

1. Ensure that the food environment in and around schools is healthy, by enhancing knowledge and skills of food vendors and strengthening the assessment and monitoring of food sold by vendors by including indicators for both nutritional value and food safety of the items they sell to children.
2. Increase access to affordable nutritious foods for school-aged children, especially among the most vulnerable families through the existing social safety net programmes, including increasing programme beneficiaries' awareness of nutritious foods.
3. Support existing national policy frameworks by issuance of sub-national policies and regulations to gain better commitment, including financial and human resource allocation.
4. Establish a UKS/M information system, to enable sharing of information and good practices related to policies, programme guidelines and learning materials for all UKS/M stakeholders at the sub-national level.
5. Strengthen UKS/M programme monitoring and evaluation by conducting individual level assessments (nutritional status and dietary practices of school-aged children) and institutional-level assessments (UKS/M stratification).
6. Integrate dietary practices of school-aged children into the existing health screening tools as part of nutrition surveillance and analyse these to inform national and sub-national nutritional programme planning development.
7. Improve awareness, capacity building, mentoring and access to nutrition information for district stakeholders, schools and parents, to improve their nutrition knowledge and skills in facilitating nutrition education for school-aged children.
8. Strengthen the role of Parent-Teacher Associations (PTAs) in nutrition education activities in schools to promote healthy diet among primary school-aged children.



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Students after school snacking in primary school,  
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