

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



## Background

Preceding COVID-19, 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.

## Methods



North Lampung, Pasuruan and Kupang Districts



March 2022 (at the three districts), April–July 2022 (among national-level stakeholders)



Ethical clearance was obtained from Faculty of Medicine University of Indonesia

### At the Three Districts



Survey, 660 students grade 4-6



Focus group discussion, homeroom teacher, UKS/M teacher, PTA, school children



In-depth interview, school principal, parents, primary health care, district UKS/M team



Observation, school canteen/ food vendors outside the school, nutrition education materials

### Among National-Level Stakeholders



In-depth interview, national-level TP UKS/M, other relevant ministries/ government institutions



Document reviews, policies, National Action Plan, programme guidelines

## Results

### Objective 1:

To assess the effects of school closures on food consumption patterns, knowledge and practices of school-aged children in Indonesia

#### Key Finding 1

The COVID-19 pandemic triggered increased frequency of children’s carbohydrate and vegetable consumption, and decreased frequency of animal-source foods and fruit consumption.

#### Key Finding 2

During the pandemic, there was (relatively) high consumption of less healthy food items and beverages among school-aged children.

#### Key Finding 3

Children had insufficient knowledge about specific good dietary practices particularly related to breakfast and food variety.

### Objective 2:

To identify existing policies and programmes that ensure good dietary practices of school-aged children, as schools started to reopen for face-to-face learning

#### Key Finding 4

Various national policies and programmes have content related to nutrition for school-aged children, but it insufficiently addresses the importance of food quality and an engaged family-based approach. It is also poorly sensitized and not well understood by stakeholders at the sub-national level. Nonetheless, the newly launched National Action Plan for Strengthening School-Aged Children and Adolescent Wellbeing (RAN PIJAR) is promising.

#### Key Finding 5

The implementation of UKS/M faces many barriers and has insufficient focus on nutrition.

### Objective 3:

To explore 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

#### Key Finding 6

Nutrition education activities were not implemented in a systematic manner, but those that were implemented were relevant. Nonetheless, the issue of unhealthy food items available through vendors could not be addressed.

#### Key Finding 7

School staff and parents acknowledge their role in supporting children’s good dietary practices, but they claim to avail of insufficient nutrition knowledge.

### Objective 4:

To 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

#### Key Finding 8

UKS/M stakeholders proposed strategic options to improve UKS/M nutrition education, including prioritisation of nutrition, awareness raising, capacity building and monitoring. However, several challenges were still in the way.

\*WFP engaged SEAMEO RECFO to conduct this study in 2022 with financial support from Cargill.

## Conclusions and Recommendations



### Objective 1

To assess the effects of school closures on food consumption patterns, knowledge and practices of school-aged children in Indonesia

### Conclusion

During the COVID-19 pandemic, children's frequency of consuming fruit and animal protein decreased but their frequency of consuming vegetables, carbohydrate-source meals, and breakfast increased, especially in urban areas.

### Recommendations

- Ensure that the food environment in and around schools is healthy by enhancing knowledge and skill of food vendors.
- Strengthen 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.



### Objective 3

To explore 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

### Conclusions

- Although nutrition education did not take place in as structured a manner as it was intended, in the areas where it was implemented at all, nutrition education was relevant to the gaps in children's knowledge and behaviour.
- Parents and school staff were ready to take a role in supporting children's dietary practices but had concerns about their own limited nutrition knowledge and insufficient reliable sources of information.

### Recommendations

- 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.
- Strengthen the role of PTAs (Parent-Teacher Association) in nutrition education activities in schools.



### Objective 2

To identify existing policies and programmes that ensure good dietary practices of school-aged children, as schools started to reopen for face-to-face learning

### Conclusions

- Nutrition is rarely prioritized and monitored for school-aged children.
- UKS/M implementation is limited and was focused mainly on hand washing during the pandemic.
- One of the Three Pillars of the UKS/M includes nutrition education and good dietary practices, but nutrition education is not provided in a structured and well-organised manner.

### Recommendations

- Support existing national policy frameworks by issuance of sub-national policy/regulations to gain better commitment.
- 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 sub-national level.
- 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).



### Objective 4

To 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

### Conclusions

- Proposed strategies consist of prioritizing nutrition for school-aged children, capacity building, awareness raising, monitoring and exploring alternative options.
- Identified challenges consist of limited resources, turnover of staff, nutrition education not being mandatory, limited engagement of parents and lack of interest of children in nutrition.

### Recommendations

- It is necessary to mainstream the proposed strategies with the existing policies and programmes at national and sub-national levels to highlight the nutrition aspect in UKS/M.
- To have a comprehensive intervention, it is recommended to include a family-based approach in addition to strengthening the existing school-based approach.

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## Objective 1\*

To assess the effects of school closures on food consumption patterns, knowledge and practices of school-aged children in Indonesia

### Key Finding 1

The COVID-19 pandemic triggered increased frequency of children's carbohydrate and vegetable consumption, and decreased frequency of animal-source foods and fruit consumption.



Frequency of carbohydrate and vegetable consumption increased



Frequency of animal-source foods and fruit consumption decreased

### Triggering Factors



Increased attention to health and nutrition during pandemic



Implementation of Movement Control Order



Reduced household income



Different learning schemes

### Coping Strategies by Parents



Prioritise children's food consumption



Plant vegetables for family consumption

### Key Finding 2

During the pandemic, there was (relatively) high consumption of less healthy food items and beverages among school-aged children.



Consumption of sugary drinks went up while that of salty snacks and noodles decreased.



Almost 40% of the children consumed sugary drinks and around 25% of the children consumed salty snacks 4-7 days per week.

### Triggering Factors



Staying at home more



Peer influence and Parents' rules to stay healthy

### Barriers



Sugary drinks being children's favourite



Sold everywhere



Pocket money provided by parents

### Key Finding 3

Children had insufficient knowledge about specific good dietary practices particularly related to breakfast and food variety.



Very poor knowledge that skipping breakfast is not good and that vegetables cannot be replaced by fruits



Unfamiliarity amongst children on the concepts of *Gizi Seimbang* or *Isi Piringku*

"*Gizi Seimbang* is the physical condition of the child, not being too fat nor thin, never heard of it *Isi Piringku*. Food with good nutrition is according to *4 Sehat 5 Sempurna* with fruits and vegetables."

Mother, Pasuruan (Urban)

"Not sure (what *Isi Piringku* is); the important thing is that there is rice and vegetables, with adding some meat or fish if there is enough money."

Father, Kupang (Rural)

"*Isi Piringku* consist of drinking milk recommendation, eating vegetables, *4 sehat 5 sempurna*."

Student-Male, Pasuruan (Urban)

\*This study has four objectives, presented in four separate infographics.

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## Objective 2\*

To identify existing policies and programmes that ensure good dietary practices of school-aged children, as schools started to reopen for face-to-face learning

## Key Finding 4

Various national policies and programmes have content related to nutrition for school-aged children, but it insufficiently addresses the importance of food quality and an engaged family-based approach. It is also poorly sensitized and not well understood by stakeholders at the sub-national level. Nonetheless, the newly launched National Action Plan for Strengthening School-Aged Children and Adolescent Wellbeing (RAN PIJAR) is promising.



UKS/M is acknowledged as the umbrella programme for school-aged children with adequate content on nutrition.

RAN PIJAR and Healthy School Campaign serve as a potential policy and programme to improve health and nutrition through both school-based and family-based nutrition interventions.

## Existing Policy Gap Analysis



School-aged children are not the priority target group for nutrition intervention.



Government regulations, policies and strategies for school-aged children related to the food environment have focused on food safety, hygiene and sanitation with limited content on food quality.



Awareness of the policies, strategies and programmes including coordination at national and sub-national levels is challenging.

## Key Finding 5

The implementation of UKS/M faces many barriers and has insufficient focus on nutrition.



UKS/M programme implementation had not been focused on nutrition but more on hand-washing facilities and practices.



Less-supportive food environment at school (canteen and food vendors)



Unavailability of data on dietary practices among school children



Lack of access and use of health screening results



Lack of resources, coaching, clarity of responsibilities and coordination

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## Objective 3\*

To explore 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

## Key Finding 6

Nutrition education activities were not implemented in a systematic manner, but those that were implemented were relevant. Nonetheless, the issue of unhealthy food items available through vendors could not be addressed.



Most schools did not follow the UKS/M technical guidelines related to nutrition and hence implementation was not systematic.



Nutrition education was implemented (including under the COVID-19 protocol).



Easy access for children to unhealthy food around school remains a barrier to improving nutrition behaviour that parents and schools are unable to address.

## Effectiveness of Nutrition Education Activities at School according to Schools and Parents



Continuously encourage and remind students on balanced nutrition and good dietary practices



Promote healthy food and healthy lifestyle at schools through school events complemented with eating food together



Display posters at schools



Allocate one specific day for nutrition-related activities



Integrate balanced nutrition practices into school subjects



Disseminate nutrition information

## Key Finding 7

School staff and parents acknowledge their role in supporting children's good dietary practices, but they claim to have insufficient nutrition knowledge.



Parents' insufficient nutrition knowledge is due to insufficient intensity and quality of nutrition messaging, and they feel less inclined to look for information.



Teachers acknowledge their role in nutrition education, and some have started to deliver it, but they need more guidance for a comprehensive approach.



PTAs' (Parent-Teacher Association) role in nutrition education is virtually absent, even though the guidelines provide them space to engage.

### ● Source of Nutrition Information of Parents



Television



Printed materials (poster, flipchart, flyer) in primary health center



Other people with health education background



Internet (Google and YouTube)



Social media



Community-based women's organization meetings



Mothers in the neighbourhood

### ● Source of Nutrition Information of Teachers



Internet (Google and YouTube)



Social media



Learning materials



Officials meeting



Former UKS/M teachers



Technical meeting of local government

### ● Attitude of Parents and Schools toward Primary School Children Nutrition



Parents and teachers know their roles and responsibilities.



Parents need more frequent, higher quality nutrition messaging.



Teachers need more guidance on comprehensive nutrition education.



PTAs are largely absent from nutrition education despite guidance encouraging engagement.

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## Objective 4\*

To 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

## Key Finding 8

UKS/M stakeholders proposed strategic options to improve nutrition education through UKS/M included prioritisation of nutrition, awareness raising, capacity building and monitoring.

## Proposed Strategic Options for UKS/M to Improve Nutrition Education



### Nutrition of school-aged children to become a priority programme

- Necessary nutrition interventions as a follow-up to the regular health screening
- Official recommendation by district government



### Intensive and massive awareness raising on UKS/M programme to all key stakeholders at national and sub-national levels

- Lessons learned and best practices dissemination
- Efficient activity and budget planning



### Build capacity of various stakeholders on nutrition education for school-aged children

- On leadership and school-based management (for school principals), on nutrition and facilitation skills (for teachers), on nutrition for school-aged children (for parents)
- The UKS/M website as one of sources of nutrition information



### Strengthen monitoring and evaluation of the UKS/M programme

- Self-assessment of UKS/M stratification by schools, followed by an appropriate appreciation
- Join monitoring by high officials from multiple sectors

## Pathways of Change



Arrange nutrition education not only as part of UKS/M programme but also under a "character education programme" since healthy lifestyle is part of children's personality and character.



Integrate nutrition education in other subjects, such as school gardens in spaces available at school, and use loudspeakers for regular nutrition information dissemination before the class break.

## Recommendations



It is necessary to streamline the proposed strategies with the existing policies and programmes at national and sub-national levels to highlight the nutrition aspect in UKS/M.



To have a comprehensive intervention, it is recommended to include a family-based approach in addition to strengthening the existing school-based approach.

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## REVISI INFOGRAFIS:

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