

SCHOOL BASED NUTRITION PROMOTION IN INDONESIA

Book 3: for Program Implementers



SEAMEO REC FON
2020



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SCHOOL-BASED NUTRITION PROMOTION IN INDONESIA

Book 3: for Program Implementers



This book is part of a resources package School Based Nutrition Promotion in Indonesia. Within the package are:

Book 1: for Academicians

Book 2: for Policy Makers

Book 3: for Program Implementers

Book 4: for School Community

Book 5: for General Public and Media

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2020**



School-Based Nutrition Promotion in Indonesia: Book 3: for Program Implementers/

Helda Khusun and Luh Ade Ari Wiradnyani

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FOREWORD

In the endeavour for addressing nutrition issues, SEAMEO RECFON always strives to give the best contribution in SEAMEO member countries including Indonesia. One potential approach to getting effective results in nutrition programs is to reach the school community. With its character as a semi-closed community, the existence of a role model, and agent of change in the family and its surroundings, school-based nutrition promotion activities becomes priority approach. Optimal nutrition intake of school-age children and adolescents is one of the key factors in the health of future generations. In addition, this age range is characterized by an increased nutritional needs to compensate for their rapid growth and development. Many efforts have been made, both by the government and other institutions, to conduct education and promotion of good nutrition practices at the school level. However, the results of this activities and the good practices and learning activities is still not well documented.

This book is a form of documentation of school-based nutrition promotion activities in Indonesian schools that are expected to be a reference for stakeholders, as well as advocacy materials for the urgency of integrated nutrition promotion activities as part of sustainable activities in schools. This book consists of 5 books, each of which is targeted for academics, policy makers, program implementers, teachers and school stakeholders, as well as parents and the media. This book is also available in English in order to reach a wider audience.

We extend our gratitude to all those who have contributed to and supported the preparation of this book. We hope this book will bring benefits to all stakeholders involved in school-based nutrition promotion activities in Indonesia.

Jakarta, June 2020



Muchtaruddin Mansyur
Director

WELCOMING REMARKS

The Ministry of Education and Culture is strongly committed to health of our students as it influences the readiness to participate in teaching and learning activities. Considering the length of time that students spend at school each day, we believe we can make school as the right means to promote and train students with good nutrition practices.

The Ministry of Education and Culture has made efforts to improve health and nutrition of our school-age children and adolescents by promoting the Nutrition and Health Program through the School Health Program or *Usaha Kesehatan Sekolah (UKS)*. The efforts were based on the Joint Regulation of 4 Ministries on the Development of School/Madrasah Health Programs (UKS/M). In addition to that, from 2017 to 2019, the Ministry of Education and Culture implemented the School Children Nutrition Program (ProGAS). The programs were focusing on 3 components, namely, increasing nutrition intake by providing healthy breakfast, nutrition education, and character building.

The Ministry of Education and Culture also appreciates various activities to promote school-based nutrition that have been carried out by different stakeholders, including universities and non-governmental organizations. All of these activities need to be well documented so that best practices of the implementation can be scaled up. Therefore, the Ministry of Education and Culture, through SEAMEO RECFON, has created this School-Based Nutrition Promotion (SBNP) book. The book contains a compilation of activities that have been carried out by government agencies, universities, and non-government organizations and presents a lot of materials for conducting nutrition promotion activities in schools.

We believe this book is beneficial for all stakeholders involved in school-based nutrition promotion activities. When they need to foster creative ideas to promote nutrition and health in schools with sustainable implementation for a healthy and quality future generation, this book can be a reliable and credible reference.

Jakarta, June 2020



Prof. Ainun Na'im, Ph.D

Secretary General

Ministry of Education and Culture of the Republic of Indonesia

WELCOMING REMARKS

The challenges in overcoming health and nutrition problems in Indonesia lies not only in solving short-term problems, but it is also important to ensure that the current nutrition improvement will also have an impact for the aversion of future similar problems in the next generation. Overcoming nutrition problems among school-age children and adolescent is one such program, bearing in mind that nutrition problems in this age-range will have long lasting effect such as Chronic Energy Deficiency and Anemia among pregnant women.

Following the life cycle approach, many health and nutrition programs have been in place in various age groups, including school-aged children and adolescents. In this age group, programs implemented are multi-sectorial in nature through the School/Madrasah Health Program or *Usaha Kesehatan Sekolah/Madrasah (UKS/M)* and intended to develop healthy habit and improve health and nutritional status. Programs as Iron Pill Supplementation for adolescent school-girl and the Healthy School/Madrasah Model are implemented within the framework of the UKS/M. There are also program implemented using platform at community, i.e. the Adolescent sensitive Youth Health Care (*Pelayanan Kesehatan Peduli Remaja (PKPR)* and Adolescent Health Post (*Posyandu Remaja*)), which are also intended for the same purpose. These various programs and activities need to be well documented so that the best practice revealed in the program can become a reference for implementation.

Therefore, we appreciate the initiative taken by SEAMEO-RECFON through the School-Based Nutrition Promotion (SBNP) Working Group in Indonesia. Documentation of school-based nutrition promotion activities that have been carried out in Indonesia by various Government Agencies, Universities, and Non-Government Organizations. It is expected could encourage the revival of innovative school-based nutrition intervention.

It is expected that this book will be well received and used by various stakeholders involved in school-based nutrition promotion activities and policy makers in Indonesia. Hopefully, launching of book, integrated programs that will focus on school age children and adolescents can emerged for a healthy and competent future generation.

Jakarta, 1 June 2020



dr. Kirana Pritasari, MQIH

Directorate General of Public Health

Ministry of Health of the Republic of Indonesia

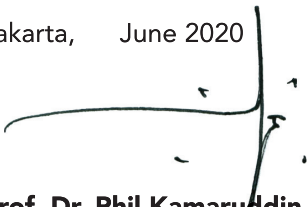
WELCOMING REMARKS

The Ministry of Religious Affair of the Republic of Indonesia pays attention to the health of school-age children and adolescents through *Madrasah* and Islamic Boarding Schools whose educational activities are the responsibility of the Ministry of Religious Affair. One of the roles of the Ministry of Religious Affair is also described in the Joint Regulation of 4 Ministries on the development of School/*Madrasah's* Health, the effort among others is developing the Healthy School models in *Madrasah* and Islamic Boarding School.

We extend our appreciation to SEAMEO RECFON, in which through the School-Based Nutrition Promotion Working Group in Indonesia has published a School-Based Nutrition Promotion Book. The book is a collection of documentation on nutrition promotion activities in schools that have been carried out by Government Agencies, Universities, and Non-Government Organizations. Lessons learnt can be drawn from past experiences to make implementation of promotional activities in *madrasah* and *pesantren* to be more efficient and effective.

We expect that this book can be well accepted and used by various stakeholders involved in health and nutrition promotion activities in *Madrasah* and *Pesantren*. Ensuring proper implementation of health and nutrition improvement program in *Madrasah* and *Pesantren* is expected to lead to healthier students with sufficient nutrition and will have an impact on the student's readiness to learn and their school performances.

Jakarta, June 2020



Prof. Dr. Phil Kamaruddin Amin, M.A

Directorate General of Islamic Education

Ministry of Religion of the Republic of Indonesia

WELCOMING REMARKS

School-age children and adolescents are the right age group to instill good nutrition practice habit. Currently as many as 26% of Indonesia's population are school-age children and adolescents with an age range of 6-19 years, and this age range is the age of compulsory education, so they spend quite a long time in school. Thus, schools can be regarded as potential means for nutrition to adolescents.

On the other hand, studies showed that nutrition problems in this age group still need to be improved. National data from *Riset Kesehatan Dasar (Riskesdas)* in 2018 showed the stunting prevalence in children aged 5-19 years ranging from 23,6% to 26,9%, the wasting prevalence from 8-9%, but the prevalence of overweight/obese also reached 13,5%-20%. In addition, health-risk behaviors are also high, including less consumption of fruits and vegetables, low physical activity, and lack of hygienic and healthy lifestyle.

Nutrition promotion for school children and adolescents is one of the activities of the School/*Madrasah* Health Program (UKS/M) which was conducted based on a Joint Regulation among Minister of Education and Culture Republic of Indonesia, Minister of Health Republic of Indonesia, Minister of Religious Affair Republic of Indonesia, and Minister of Home Affairs Republic of Indonesia, reference number 6/X/PB/2014 number 73 year 2014 number 41 year 2014 number 81 year 2014. One of the roles of the Ministry of Home Affairs is to encourage local governments to include the UKS/M program in the regional planning district and provincial level.

For nutrition problem alleviation, many stakeholders have been involved to strive for the implementation of good nutrition practices among school-age children and adolescents. Through the School-Based Nutrition Promotion Working Group in Indonesia, SEAMEO RECFON documented various school-based nutrition promotion efforts that have been carried out including good practices. Compilation is carried out through documents/literatures review and direct data collection to stakeholders who works in developing school-based nutrition promotion. This School-Based Nutrition Promotion Book contains information on various government programs and various nutrition interventions in school from various institutions, and include themes on the First 1000 Days of Life (1000 HPK) interventions, balanced nutrition, obesity, food safety and other topics, including information on tools and modules used.

We hope that this book can serve as a reference and used by various stakeholders involved in the implementation of nutrition and health promotion activities in school that are sustainable for a healthy and quality future generation.

Jakarta, July 2020



Dr. Ir. Muhammad Hudori, M.Si.
Directorate General of Regional Development
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1. WHY THE HEALTH OF SCHOOL AGE CHILDREN AND ADOLESCENTS IS IMPERATIVE?

1.1 Who are the school age children and adolescents

In the Law Number 35 Year 2014 (as an amendment to the Law Number 23 Year 2002) on Child Protection, children is defined as a person younger than 18 years old, including the fetus. The World Health Organization defines adolescents as people in the age range of 10-19 years¹. Therefore, the definition of school-age children and adolescents we are referring to is people in the age range of 7-18 years old. Based on that definition, 1 in 4 Indonesians are school-aged children and adolescents.

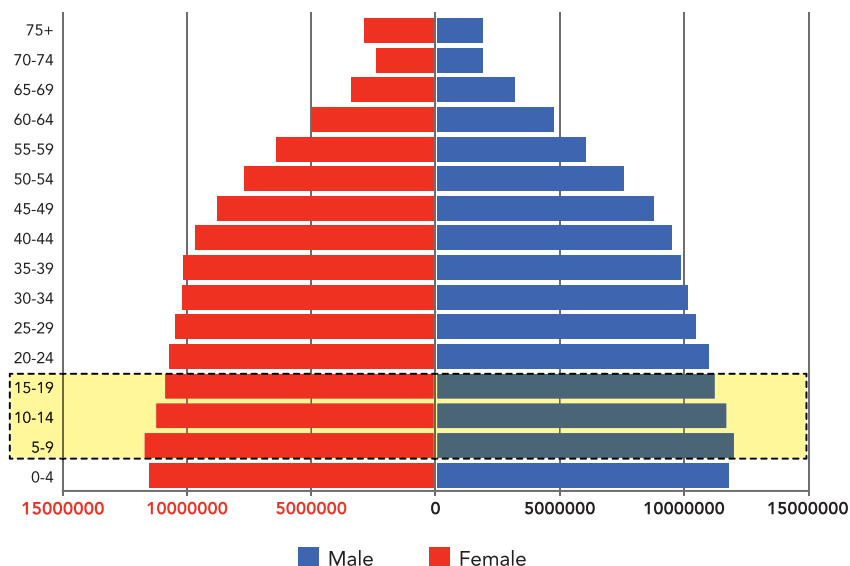


Figure 1. Proportion of School-Age Children and Adolescents in the Indonesian Population Pyramid Structure in 2019 based on Projections

Source: *Proyeksi Penduduk Indonesia 2010-2035*²

1.2 What are the nutritional problem in school age children and adolescents?

This age group requires increased nutrition intake to compensate for their rapid growth and development. In addition, when they enter the school age period, children experience various changes in life, including

their social environment. Children have started to recognize and adapt to the school environment and other environments outside the home. That is, the child receives a lot of influence from various parties who also determine the choices they made, including choices related to food and other health-related life style. In addition to positive influences, the environment can also have negative influences that affect health risk behaviors and nutrition problems.

There are many nutrition problems in school-age children and adolescents, including stunting, wasting, obesity/obesity, and anemia³. These nutrition problems can be caused by many factors, including diet, personal hygiene, physical activity, environmental hygiene, and other related risky behaviors such as smoking.

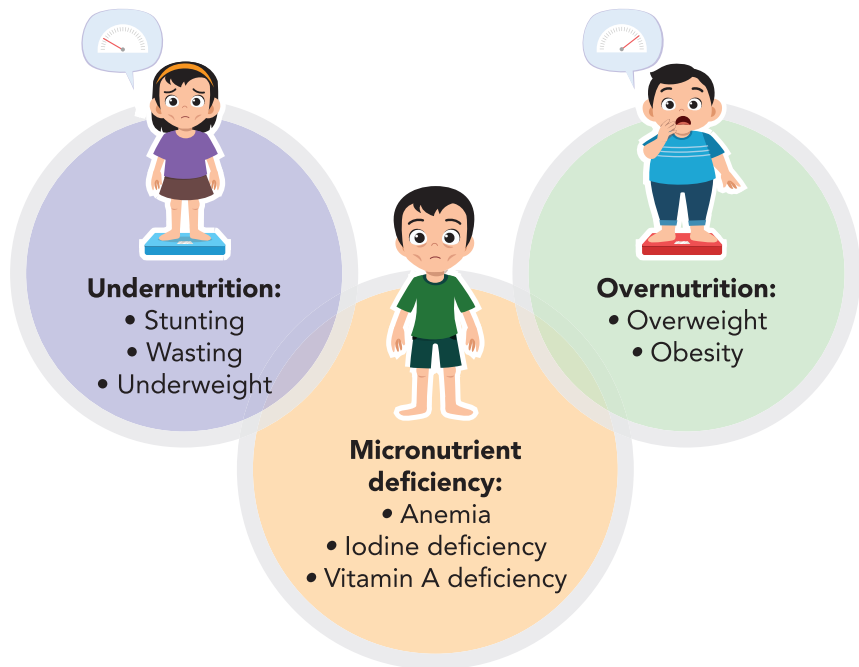


Figure 2. Common Nutrition Problem in School Age Children and Adolescents (*The Triple Burden of Malnutrition*)

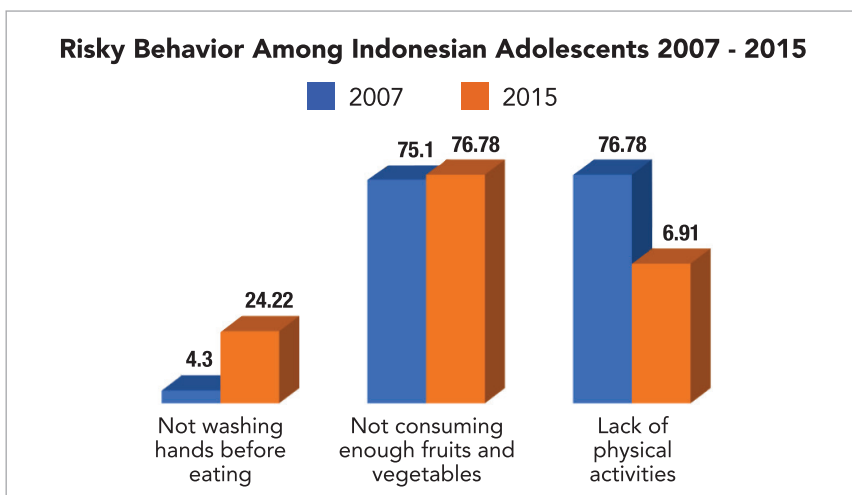
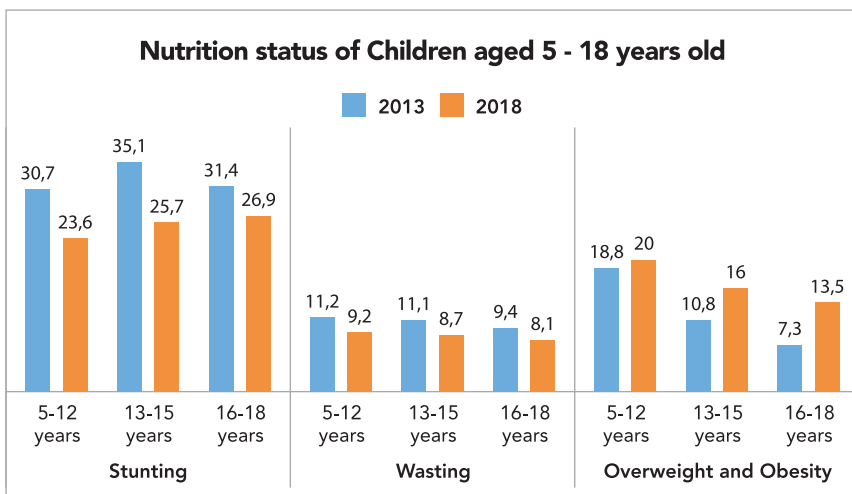


Figure 3. Nutritional Status and Health-Related Risky Behavior of School Age Children and Adolescents in Indonesia

Source: *Riset Kesehatan Dasar* 2013 and 2018 (upper)^{4,5}, Global School-based Student Health Survey (GSHS) 2007 dan 2015 (lower)^{6,7}

1.3 Why nutrition problem in school age children and adolescents is a pressing problem?

Nutrition and health problems in school-age children and adolescents can be a continuation of nutrition and health problems in infancy and

childhood or new problems that arise during school and adolescence. If we fail to address it, this nutrition and health problems will contribute to the emergence of nutrition and health problems in adulthood and old age.

In the cycle of life, the stages of life of school-age children and adolescents are the last opportunity in preparing them to become healthy and productive adults as well as a caring and nurturing future parents. This also mean investing in school-age children and adolescents is an investment for the present and the future advancement and welfare of the nation.

In addition, healthy school-age children and adolescents will actively participate in school activities, both in academic activities and in activities that foster social and organizational skills. This is a key for them to enter the workforce as an adult. Therefore, the benefits of improving health in adolescents are a combination of all benefits for health, education and the economy, both in the short and long term.

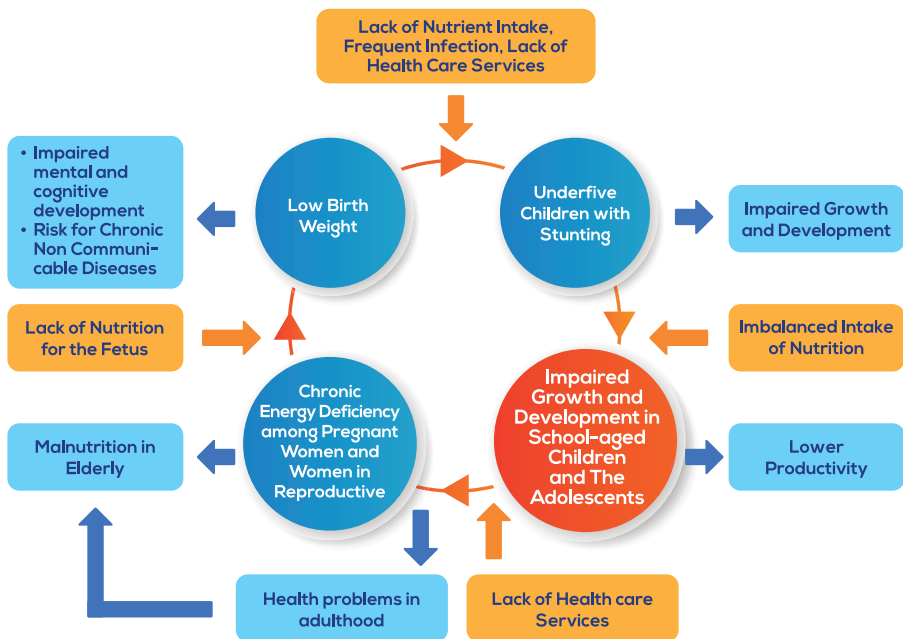


Figure 4. Nutrition Problem within the Life Cycle

Source: *Gizi dalam Daur Kehidupan*⁸

2. HOW THE SCHOOL CAN CONTRIBUTE TO PREVENT NUTRITION PROBLEM IN SCHOOL AGE CHILDREN AND ADOLESCENTS?

School is a very strategic setting for fostering good nutrition and healthy behavior due to several reasons:

1

School can reach a large number of Indonesian school-age children and adolescents⁹ with the School Participation Rates in Indonesia for the 7-12 year age group are more than 95%.

2

The amount of time the most children and adolescents spent at school¹⁰.

3

Nutrition education can be conducted regularly¹¹.

4

School is a trusted institution where student are entrusted by their parents for learning, including to learn life skill such as healthy lifestyle¹⁰.

5

School can also benefit from the efforts since healthier students means improvement in the school competitiveness¹⁰.

The school can play their strategic role in supporting students to improve their knowledge and practice of healthy eating habit. It can be done by conveying an accurate and accurate balanced diet messages routinely, monitoring the safety and the nutritional quality of food and beverage sold in the school canteen, providing policy that supports a nutrition friendly school by organizing events such as breakfast together at school, fruit eating at school, and others. Equipped with the right knowledge and skills as well as continuous support from the school environment will empower students to build a healthy eating habit.

Given the various recent nutrition problems among school-age children and adolescents, a school-based nutrition promotion should cover several topics:

- **Balanced diet**, with its four pillars, namely the consumption of various foods, personal hygiene practices, physical activity and regular weight monitoring. In addition, visualizations for practical guidance such as *Tumpeng Gizi* (Nutrition “*Tumpeng*” or cones (as daily consumption guide), and My Plate (as one meal guide) also need to be conveyed.
- **Food safety**, for example tips on recognizing food or drinks with unsafe coloring substance.
- **Limit consumption of sugar, salt and fat in a day.**
- **Prevention of anemia in adolescents**, including the importance of taking the iron and folic acid supplement once a week for adolescent girls.

The World Bank states that the existence of a school-based food and nutrition programs can be more effective if complemented by the community empowerment including parents, availability of health and sanitary facilities, a healthy school environment as well as a supporting policy.

From each challenge at various levels of school-based nutrition program implementation, there are several key factors that play an important role in determining the implementation of School-Based Nutrition Promotion, namely:

Commitment and support from the school leaders.

The capacity of the teacher in delivering accurate nutritional messages in an interesting way.

Active involvement and support from parents and students themselves.

Use of various approaches and media by utilizing available opportunities and resources, and integrated as part of school activities. This approach aims to reinforce nutrition messages by delivering them continuously at school, and at home.

3. EXAMPLES OF SCHOOL BASED NUTRITION PROMOTION

Ideally, nutrition intervention or promotion activities in schools are carried out through various approaches and media by utilizing opportunities/activities that are already part as the school agenda/activities, so that students receive regular exposure to these nutrition messages.

Some types of School-Based Nutrition Intervention programs, for example:

- Nutrition education in schools - nutrition education is carried out through various activities in the school by actively involving students, teachers and parents. Activities at school can also be followed up with ongoing monitoring at home.
- School Feeding - school feeding, involving parents and the school community using local food sources. In addition to having a good impact on nutrition and health status, the provision of food in schools also serves to develop the economy and agriculture in the school environment, as a form of social protection, help the students to achieve optimal learning outcome, and reduce student absenteeism¹².
- Supplementation of vitamins and minerals - in the form of powder and fortified biscuits.
- Peer Education - adolescents are empowered and encouraged to act as educators or counselors who work in teams to provide information or advice to their peers¹³. Studies have shown that peer education method contribute in reducing sedentary lifestyles and increasing knowledge scores, positive attitudes, and behavior towards balanced nutrition among adolescents¹⁴.

Nutrition education is one of the most common types of schoolbased nutrition interventions. Nutrition information can be delivered in special sessions (for example a healthy life education session) or integrated into the subjects. For example, using pictures of fruits and vegetables for calculation in math subjects, discussion about traditional foods that are nutritious in *Muatan Lokal* subjects, the growth of vegetable or fruit in science subjects.

In addition, strengthening nutrition messages can also be carried out in special school activities such as commemorating school birthdays, school performance, delivering information to parents through letters or at school meetings, routine meetings of teacher and school management, class meetings, and other activities.

The school canteen is also one of the potential setting for learning the healthy eating habits. Provision of healthy, nutritious and attractive food in the school canteen can be a means for students to try new foods with their friends. In addition, as one of the places often visited by students, the canteen is also one of the strategic place to display attractive posters to promote balanced diet and healthy eating habits. Several studies on school-based nutrition education have implemented various approaches with a variety of activities to strengthen the nutrition messages delivered. For example¹⁵⁻¹⁷.





Figure 5. Various Approaches with a Variety of Nutrition Education Activities

The studies showed that the intervention resulted in an increase in consumption of fruits and vegetables from the intervention group as well as improvement in self-efficacy to change eating patterns toward healthier eating habit among adolescents with overweight problem. In addition, there was also an improvement in healthy food selection among elementary school students, and an improvement in consumption patterns especially the reduction in snacking habits in junior high school students. These students reported that they eat breakfast more often, reduce excess food and reduce skipping meals ^{16, 17}.

4. GOVERNMENT PROGRAM FOR SCHOOL-BASED NUTRITION PROMOTION IN INDONESIA

In 2014, four Ministries issued a Joint Regulation between the Minister of Education and Culture, the Minister of Health, the Minister of Religion, and the Minister of Religion of the Republic of Indonesia Number 6 / X / PB / 2014; Number 73 of 2014; Number 41 of 2014 and Number 81 of 2014, respectively, concerning the Development of School/*Madrasah* Health Program (*Usaha Kesehatan Sekolah/Madrasah - UKS/M*) as the legal basis for implementing UKS/M. However, the implementation of UKS had already taken place long before 2014.

The UKS/M is designed as a vehicle to coordinate various health-related activities carried out at school/*madrasah* level thus supports the students to improve their health and create a healthy environment in schools. The UKS/M program is implemented by the UKS Team in each school which is assisted by the UKS team in the Community Health Center (*Puskesmas*) and the school communities such as parents, school committees, canteen managers and tenants, street vendors, and the community around the school. The UKS/M main activities are carried out through three pillars called the UKS Triad, namely health education, health services, and the school environment development.



UKS TRIAD

1. Health Education

- Health literacy movement.
- Education for life skill to live a healthy life.
- Hand washing.
- Teeth brushing.
- Physical activity during class/subject changes.
- Breakfast program where students bring their own food that fulfill the balanced diet.

2. Health Care Services

- Regular physical and health check up.
- Vaccination, and anti helminthic, supplementation of iron and folic acid.
- First aid services.

3. Supporting Healthy School Environment

- Support and monitoring of healthy canteen and food vendors around school.
- Garbage disposal management.
- School garden.
- Eradication of mosquito nest.
- Tobacco free school environment.

Figure 5. UKS Triad (TRIAS UKS)

Source: *Strategi Komunikasi UKS/M*¹⁸

Health Education can be implemented through curricular and extracurricular activities. Curricular activities refer to education during regular learning hours according to the curriculum that applies to each level and can be integrated into all subjects, especially Physical Education. Whereas extracurricular activities (carried out outside regular learning hours) related to health education may include school gardens, scouts, school wall/magazine (in Indonesia commonly displayed on the wall on public service area at school/*madrasah*), various competitions, youth red cross, student council, and others.

In its daily implementation, *Puskesmas* should conduct the health promotion at schools in their working areas through UKS/M activities. Unfortunately, this has not yet been done optimally because of the limited human resources¹⁹. Accordingly, although the UKS/M has been implemented for a long time, the achievements of each region are very diverse and highly dependent on the level of commitment of stakeholders in each region towards UKS/M. In general, it was found that the implementation of UKS / M activities in Indonesia was not yet optimum²⁰.

Some of the school-based nutrition programs implemented by the government are:

1. My Health Report Card

The focus of the program is health and nutrition education, together with the assessment and recording of nutritional and health status of the primary and junior and senior high school students. My Health Report Card was published by the Family Health Directorate of the Ministry of Health in 2017, consisting of the Health Information series (containing information related to health, growth and development of students) and the Health Record series (containing student health records from the results of health assessments in schools, health centers or other health facilities). These two series are used side by side.

This book is expected to be read by students (for example during a 15-minute literacy session) and parents. In addition, health workers and teachers are expected to explain the contents of this book to students. The use of this book is in accordance to the 1st and 2nd pillars of the UKS triad, namely education and health services.



Figure 6. Health Record Book for Elementary School (left) and Junior and Senior High School (right)

Source: Ministry of Health Republic of Indonesia, 2017²¹

Some topics related to nutrition include balanced diet (including examples of menus for various age groups), the importance of breakfast and how to make it as a habit, choosing healthy snacks in the school canteen, nutritional status assessments every 6 months, clean/hygienic and healthy life style, several health problems related to nutrition, and sports/physical activity. But until now, there has been no official publication related to evaluation of the use of the My Health Report Card in Indonesia.

2. The Weekly Iron and Folic Acid Supplementation

The focus of the program is the provision of iron and folic acid supplements (60 mg of elemental iron and 0.4 mg of folic acid) to girls in junior and senior high school and equivalent as an effort to prevent anemia. In the Circular Letter of the Director General of Public Health number HK.03.03 / V / 0595/2016 concerning the provision of the iron and folic acid (IFA) tablets to adolescent girls and women of reproductive age, it is stated that the purpose of IFA supplementation is to improve the nutritional status of adolescent girls so as to break the cycle of stunting, prevent anemia, and increase iron reserves in the body. This weekly IFA supplement is given through UKS/M in schools by determining the day of drinking the tablet together every week according to the agreement in each region. The Puskesmas will distribute the tablets to schools through UKS/M activities, as well as gradually carry out hemoglobin checks as part of the health screening activities of the school children. Monitoring of compliance of consumption is carried out by the UKS/M team in each school, to be reported across levels.

The implementation of this program is in close coordination with the District/Provincial Education Office and the Ministry of Religion Office in the districts/cities and province. In addition to the Circular Letter of the Director General of Public Health, detailed guidance on the IFAS program can be seen in the Guidelines for Anemia Prevention and Management in Adolescent Girls and Women of Reproductive Age issued by the Ministry of Health in 2016²².

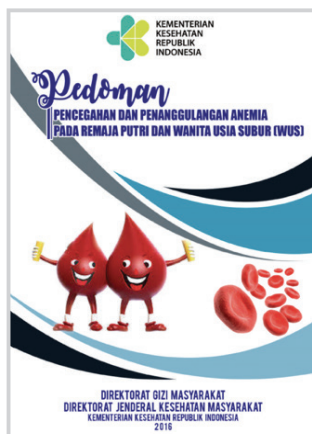


Figure 7. Guideline for Prevention and Management of Anemia in Adolescent Girls and Women in Reproductive Age

3. **Program Gizi Anak Sekolah (ProGAS) or the Nutrition Program for School Children**

The program focuses in three interrelated components, namely 1) Increasing the intake of balanced nutrition for the children in schools by providing breakfast with balanced nutrition, prepared using provided recipes with local food ingredients by a community-based cooking groups at school. In 2019, joint breakfast activities were carried out for 60 days of children's meals per student; 2) Nutrition education provided to cooking groups, students, teachers and parents, 3) Character building through discipline training, queuing culture, orderliness, pray before and after eating, finish the foods, and give appreciation for parents who have prepared breakfast at school and the implementation of Clean/Hygienic and healthy Life style (PHBS). The program targets are elementary school students in food and nutrition-prone areas or special areas, such as post-disaster, the country border areas, remote areas

The ProGAS was held for the first time in 2016 under the coordination of the Directorate of Primary School Development of the Director General of Primary and Secondary Education of the Ministry of Education and Culture. In 2017, ProGAS was implemented in 11 districts in 5 provinces with 100 thousand students. Expansion of coverage was carried out in 2018, namely 64 districts in 20 provinces with a total number of students of 100,136 people. It was continued in

2019 with a target number of 100,620 elementary students in 39 districts in 20 provinces. ProGAS target districts are regencies that fall into the category of food and nutrition insecure as well as certain regencies that have specificities (remote islands, border areas, post-disaster). Whereas the designation of the elementary schools as the program recipient is decided in coordination with the District Education Office ²³.

4. The Healthy School/Madrasah Model

The focus of the program is to create a healthy school environment (elementary/junior /senior high school or their equivalent) through various components of health promotion programs and health services. Basically, to solve the nutrition problems of school children and adolescents through school requires a comprehensive model of intervention in the school environment. Improving the nutritional status of students can be achieved by creating a healthier school environment and improving healthy living habits as a whole.

Indicators for applying the healthy school model consist of physical, mental and social indicators²⁴.

01 Physical Indicators

Including, 1) Number of students with normal nutritional status; 2) Have adequate clean water facilities and adequate sanitary latrines; 3) Have adequate hand washing facilities and garbage bins; 4) Organized 'hand washing with soap' activities; 5) Breakfast/lunch and tooth brushing together at school; 6) Conduct regular physical activity; 7) Conduct health screening and periodic health checks.

02 Mental Indicators

Namely providing education on healthy living skills (psychosocial skill) in schools.

03 Social Indicators

Namely 1) Smokefree area (*Kawasan Tanpa Rokok - KTR*); 2) Drugs-free areas (*Kawasan Tanpa Narkoba - KTN*); 3) Violence-free area (*Kawasan Tanpa Kekerasan KTK*); 4) Have sufficient school/doctor health cadres and 5) Low absenteeism due to illness²⁴.

In achieving healthy school indicators, there are a number of activities that can be carried out by the healthy schools / madrasas by integrating them into the teaching and learning activities plan in schools as shown in **Table 1**²⁵.

Table 1. Example of Healthy School/Madrasah Model Activities Integrated into the Regular Teaching and Learning/RTL

Time	Day				
	Monday	Tuesday	Wednesday	Thursday	Friday
	Smile and polite greetings	Smile and polite greetings	Smile and polite greetings	Smile and polite greetings	Smile and polite greetings
06.30 – 07.00	Flag Ceremony	- Hand washing with soap - Breakfast session - Hand washing with soap	Health Literacy movement (Utilizing the "My Health Card")	Education on Healthy Life Skill	Physical Activity
07.00 – 07.45	RTL	RTL	RTL	RTL	RTL
07.45 – 08.30	RTL	RTL	RTL	RTL	RTL
08.30 – 09.15	Stretching, RTL	Stretching, RTL	Stretching, RTL	Stretching, RTL	Stretching, RTL
09.15 – 10.00	KBM	KBM	KBM	KBM	KBM
10.00 – 10.15	Recess, Canteen Monitoring	Recess, Tooth brushing	Recess	Recess	Recess, Tooth brushing
10.15 – 11.00	RTL	RTL	RTL	RTL	RTL
11.00 – 11.45	RTL	RTL	RTL	RTL	RTL
11.45 – 12.45	Recess	Recess	Recess	Recess	Recess
12.45 – 13.30	RTL	RTL	RTL	RTL	Coaching/ training of health cadre
13.30 – 14.15	RTL	RTL	RTL	RTL	Drinking WIFAS together for the female students

5. *Pola Hidup Bersih dan sehat (PHBS)* or Clean/Hygienic and Healthy Lifestyle Program at school

The focus of the program is to improve clean, hygienic lifestyle and healthy behavior in the school environment (elementary/junior /senior high school and equivalent). Nutrition problems are closely related to the overall lifestyle. Therefore, it's not just a matter of food. *PHBS* is also the second pillar of the four pillars of Balanced Diet.

The Guidelines for the Development of *PHBS* are regulated in Regulation of the Minister of Health of the Republic of Indonesia Number 2269 / MENKES / PER / XI / 2011. The purpose of *PHBS* is to improve knowledge, attitudes, and practices related to healthy lifestyle including at schools. *PHBS* in schools involves students, teachers, and the school community through various activities, such as washing hands with soap before and after eating, consuming healthy snacks, using clean and healthy latrines, regular exercise, eradicating mosquito larvae, not smoking in the school environment, proper garbage disposal and doing community service with the school community to create a healthy school environment.

5. INTER-SECTORAL COORDINATION AND POLICY SUPPORT

The involvement of many sectors in the improvement and promotion of school-based nutrition require good coordination at different organizational levels. Thus, coordination across programs, across sectors at various levels becomes very important. In this regard, some of the keys to successful coordination in the UKS program identified were²⁶:

1

There is a joint **commitment across sectors** with clear legal force in the implementation of nutrition activities for school children and adolescents, for example as stated in the Joint Decree of the four ministries on UKS/M, In this joint decree the tasks and functions of each ministry have been mentioned, as well as the tasks of the UKS/M team at the central, provincial, district/city to sub-district level.

2

The **existence of documents** explaining the coordination with clear responsibility of each party to strengthen the collaboration, for example the existence of an Official Assignment Letter (*Surat Keterangan/SK*) or MoU.

3

The existence of **"leading sectors"** to coordinate the programs/activities from various sectors and programs.

4

Availability of socialization activities, regular meetings and joint monitoring and evaluation involving the Ministry of Education and Culture, Ministry of Health, Ministry of Home Affairs, Ministry of Religion and other involved agencies such as the Department of Fisheries, Agriculture and Food Security.

With regard to coordination in the context of implementing the National Action Plan on the health of School Age Children and Adolescents 2017-2019, a Task Force was formed at the national, provincial, and district / city levels, consisting of the Steering Committee, Technical Committee, and Working Group as listed in Table 2. However, at present there is not enough data on the success of the implementation and coordination of this national action plan.

Table 2. Example of Healthy School/Madrasah Model Activities Integrated into Regular Teaching and Learning (RTL) Schedule

No	Working Group	Coordinator
1	Division for increasing knowledge and skills of school-age children and adolescents towards 8 (eight) health issues.	Ministry of Education and Culture and Ministry of Religion
2	Division for strengthening access and quality of comprehensive health services for school-age children and adolescents.	Ministry of Health
3	Division for strengthening the supporting environment.	Ministry of Women Empowerment and Child Protection
4	Division for increasing the provision of strategic information.	Ministry of Communication and Informatics
5	Division for improving meaningful involvement of school-age children and adolescents.	Ministry of Youth and Sports Affairs

Effective coordination is always easier said than done. The experience and challenges for coordination in implementing the Weekly Iron and Folic Acid Supplementation (WIFAS) program for school-going adolescents girls in model areas in West Java Province (Cimahi and Purwakarta District) are explained in a publication by Roche et al in 2018²⁶. Some of the things described in the publication are:

1 The main key to the successful implementation of the WIFAS program in schools is capacity building and good coordination, thus building relationships and trust between stakeholders. The relationships and trust of stakeholders is obtained from mutual understanding of the program and the specific role of each institution in the program and personal level relationships. Building personal rapport is not an instant process and requires several approaches before an agreement is reached.

2 The recording and reporting mechanism as well as monitoring and evaluation still need improvement and strengthening.

3 Sharing data across sectors is considered a good thing so that all parties can be involved in monitoring the development of the program as well as to increase accountability.

4 Teachers play an important role, especially in distributing and monitoring the IFA supplement consumption, and encouraging students to adhere to the recommendation. Considering that teachers are already busy with their teaching assignments, acknowledgment and appreciation from the principal and related agencies is very much needed, for example by informing the progress of the WIFAS that has been achieved through direct or indirect meetings (for example through a newsletter).

5 Meetings and briefings, both through direct meetings and through official letters, to parents / guardians of students are very important to convince them that the IFA supplement is safe for consumption.

6 At the school level, better commitment from all parties involved can be obtained from issuing an official assignment letter.

6. PROGRAM SUSTAINABILITY

One of the keys to create changes in nutrition and health behaviors of school-age children and adolescents is the continuous implementation of education and modelling examples. In addition, school-based nutrition improvement programs must adjust to changes in social dynamics that affect the nutrition problem among students²⁷.

Important factors considered to maintain the sustainability of the program include:

a. Policy

The implementation of school-based nutrition improvement programs for school-aged children and adolescents is guaranteed by Laws and Regulations. Therefore, to avoid overlapping and contradictory policy implementation, the policy at each government level should be clearly written. The provision of official assignment letters for those responsible for implementing the program at every level, to the lowest level (i.e. the implementers in schools) is an example to create good coordination.

b. Leadership

Good implementation of school-based nutrition promotion for school-age children and adolescents requires solid leadership that is a unity of shared vision and mission because it involves many sectors and stakeholders. Leadership from each institutional level is very important in setting the course of goals and monitoring the implementation of the program. In addition, other leadership that is closer to the target group is also needed, for example a figure or an idol who can become a role model especially for school-aged children and adolescents. The role models can be peers, community leaders, regional leaders, celebrities or influencers on social media.

c. Institutional Management, Coordination and Communication

The decentralized government requires that the provincial and district/city areas to develop their own situation analysis and responses based on their specific problems. The Central Government's function is to provide technical guidance from the

policy direction, while the local government is responsible for implementing it according to their conditions. This institutionalization and organization are very important due to the multi-sectoral nature of the program, from the central level (ministry/institution), to the local level (provincial and district/city governments), to the level of implementers in schools and puskesmas²⁶.

The multi-sectoral nature of the program requires strong cross-program and cross-sectors coordination at various levels. Personal relationship is one of the effective ways to build relationships and trust between program leaders from across sectors which leads to a meaningful coordination of program implementation. In order to improve personal relationships, an understanding of the program and the clarity of the roles and responsibilities of each institution are needed. The good coordination must be started from the preparation and planning period, both at the central, regional and school levels.

Communication is the key for a better coordination. Good communication is pivotal for converging budget, planning, implementation and monitoring, and evaluation from various stakeholders. Communication also plays an important role in empowering efforts for program targets. The use of digital technology and the internet can improve efficiency in communication. Among these uses are information dissemination through sending short messages or sharing data through digital platforms that can be accessed by key program implementers, and other parties' involves²⁶.

d. Integration

To improve the efficiency and effectiveness, program integration is a must. Integration starts from the highest level, namely at the ministry/institution level in the central government and regional government, to the lowest level, namely in schools, villages and puskesmas. At the school level, integration can be implemented in the learning process through the curriculum.

e. Effective, Efficient and Empowering Intervention

The implementation of the school-based nutrition promotion programs should be tailored to the needs, targets and goals of the program. Therefore, research activities should be an integrated part in the process to streamline the implementations and the overall aim.

Research can help in finding ways to increase coverage and compliance with programs at regional and national levels as well as be a reference for determining the types of interventions to be implemented.

Moreover, the interventions must also aim to 'empower' the target of the program or the key actors of the program. The main purpose of empowerment is to increase the 'demand', acceptance and active participation towards the program. The involvement of various elements of society (government institutions, private businesses, universities, schools, media, non-governmental organizations, professional groups, community groups and others) is highly expected in this school-based nutrition improvement program. The involvement of these various parties should start from the planning, implementation, to program monitoring and evaluation. Henceforth, rewards can be awarded to parties contributed to the program implementation.

f. Increased Management Capacity at Each Level of Program Implementation

Capacity building of program managers can encourage innovations that can improve program effectiveness and efficiency, collaboration among program implementers, as well as community trust and other stakeholders. This capacity building includes knowledge related to content as well as skills in delivering the content (i.e. facilitation and communication techniques).

g. Funding

Funding may come from a variety of sources which can be in the form of money, goods or technical assistance. Each funding source has its own principles of use and characteristics, so the utilization of the funding must be in line and in accordance with these characteristics. The most important thing is the use of funding must provide a great leverage for the achievement of program objectives as a form of funding accountability.

h. Infrastructure Support

Infrastructure support can be illustrated as 'software' and 'hardware'. 'Software' infrastructure such as appropriate policies, qualified human resource capacity, and advances in science and technology that encourage creativity and innovation. While on the other hand, the 'hardware' infrastructure is standardized things, including school buildings and health centers and facilities, clean water and sanitation, communication facilities and technology (such as LCD projectors, laptops or computers, mobile phones), nutrition and health education materials. The development of technology must be utilized in order to accelerate the delivery of information, the development of educational material, the delivery of nutrition and health messages, the capacity building of the teachers/facilitators for the dissemination of results, raising support and conducting monitoring and evaluation.

i. Monitoring

Monitoring aims to assess/update the progress of the implementation so that it can be immediately adjusted for any response, improvements or acceleration whenever problems, shortages or delays from the plan is found. Monitoring activities should involve other stakeholders so that the implementation of the activities can be more responsive and accountable. Constructive feedback and prompt follow-up to the monitoring results are very important for improving the quality of program implementation and preventing unnecessary/excessive use of resources. In addition, the use of digital technology can improve monitoring efficiency.

j. Evaluation

Evaluation is done at least twice, which includes mid-program evaluation and final program evaluation. Evaluation can also be carried out by internal or external parties. The evaluation process must produce evidence-based, trustworthy, reliable and useful information for determining future program policies. Program evaluation is also a form of program accountability.

7. CLOSING

To be able to understand the importance of nutrition intake and a healthy lifestyle as well as to implement it in everyday life, every individual needs exposure to sufficient nutrition information and role models that provide examples for adopting the healthy behavior. Apart from their home, for school-age children and adolescents, exposure to information and good examples will be effective if it is also obtained at school with the support of the entire school community so that, this healthy behavior can become a habit and be embedded in their personal value.

School-based nutrition promotion is an effort to expose and support practices related to nutrition and health for school-age children and adolescents in particular, and the entire school community in general. This activity should focus on preparing and empowering students to be able to make independent decisions to implement balanced diet from the available choices that surround them.

With the limited existing resources in the school and academic responsibilities that must be fulfilled by teachers, the nutrition promotion activities in schools must be feasible and carried out gradually but consistently. As a first step, schools are welcome to develop their capacity as well as to choose models of nutritional promotion activities in accordance with their conditions and resources. For example, the school may start with nutrition education in extracurricular activities, followed by thematic activities at school (breakfast together every week, fruit days once a week), followed by strengthening the school healthy canteen, then followed by formation of school cadres. This development can be done simultaneously or slowly to scaffold the interventions from the most feasible intervention until later it can be implemented as a whole package because each of the components, complement each other. By paying attention to these three principles; feasible, gradual, and consistent, the school-based nutrition promotion activities can be sustainable, so that changes in nutrition and health practices of school age children and adolescents can be realized.

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