

# SCHOOL BASED NUTRITION PROMOTION IN INDONESIA

Book 2: for Policy Makers



SEAMEO RECFON  
2020



KEMENTERIAN  
KESEHATAN  
REPUBLIK  
INDONESIA



gain  
Global Alliance for  
Improved Nutrition



# SCHOOL-BASED NUTRITION PROMOTION IN INDONESIA

Book 2: for Policy Makers



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**

**Disclaimer:** This book was developed with funding and technical support from the Ministry of Health of Republic of Indonesia - GAIN Cooperation Program 2017 - 2020 for the Community Nutrition Improvement. The information contained in this book is the responsibility of the Implementing Partner (SEAMEO RECFON).

**SEAMEO RECFON  
2020**



**School-Based Nutrition Promotion in Indonesia: Book 2: for Policy Makers/**

Helda Khusun and Luh Ade Ari Wiradnyani

Jakarta: SEAMEO RECFON, Kemendikbud RI, 2020.

x, 23 pages.;14.8 cm x 21 cm.

**ISBN 978-623-7759-23-2 (no.jil.lengkap PDF)**

**ISBN 978-623-7759-25-6 (jil.2 PDF)**

**Editors:**

Ir. Helda Khusun, M.Sc, Ph.D

Dr. Luh Ade Ari Wiradnyani, M.Sc

**Contributors:**

Andi Erwin, SKM, M.Gizi

Annas Buanasita, SKM, M.Gizi

Dwi Budiningsari, M.Kes, Ph.D

Fatmalina Febry, SKM, M.Si

Dr. Healthy Hidayanty, SKM, M.Kes

Dr. Kadek Tresna Adhi, SKM, M.Kes

Khalida Fauzia, STP, M.Gizi

Susi Tursilowati, SKM, MSc.PH

Ir. Siti Muslimatun, MSc, PhD

Trias Mahmudiono, SKM, MPH(Nutr.), GCAS, Ph.D

**Translator:**

dr. Yessi Crosita Octaria, MIH

**Cover Design and Layout:**

Riqqo Rahman

**Publisher:**

*Southeast Asian Ministers of Education Organization Regional Centre for Food and Nutrition  
(SEAMEO RECFON)*

**In collaboration with:**

Ministry of Education and Culture of Republic of Indonesia

The Global Alliance for Improved Nutrition (GAIN) Indonesia

Ministry of Health of Republic of Indonesia

Ministry of Religion of Republic of Indonesia

Ministry of Home Affairs of Republic of Indonesia

**Redaction:**

UI Salemba Campus, Jl. Salemba Raya No.6, Jakarta 10430

Phone +62 21 31930205 – Fax. +62 21 3913933 – PO. Box 3852

Website: [www.seameo-recfon.org](http://www.seameo-recfon.org) – email: [information@seameo-recfon.org](mailto:information@seameo-recfon.org)

**1<sup>st</sup> Printing, 2020**

All rights reserved. It is forbidden to quote and reproduce this book without written permission from the copyright holder, in part or in whole in any form, such as print, photocopy, microfilm, and sound recording.

Copyright 2020

**EDITORS:**

Ir. Helda Khusun, M.Sc, Ph.D  
Dr. Luh Ade Ari Wiradnyani, M.Sc

**CONTRIBUTORS:**

Andi Erwin, SKM, M.Gizi  
Annas Buanasita, SKM, M.Gizi  
Dwi Budiningsari, M.Kes, Ph.D  
Fatmalina Febry, SKM, M.Si  
Dr. Healthy Hidayanty, SKM, M.Kes  
Dr. Kadek Tresna Adhi, SKM, M.Kes  
Khalida Fauzia, STP, M.Gizi  
Ir. Siti Muslimatun, MSc, PhD  
Susi Tursilowati, SKM, MSc.PH  
Trias Mahmudiono, SKM, MPH(Nutr.), GCAS, Ph.D



# 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**

Direktorat General of Public Health  
Ministry of Health of the Republic of Indonesia

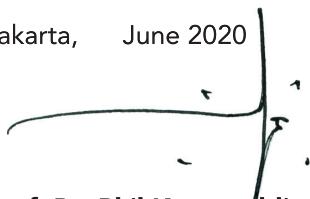
# WELCOMING REMARKS

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  
Ministry of Home Affairs of the Republic of Indonesia

# TABLE OF CONTENT

FOREWORD	iv
WELCOMING REMARKS	v
TABLE OF CONTENT	ix
LIST OF TABLES	x
LIST OF FIGURES	x
<b>1. INTRODUCTION</b>	<b>1</b>
1.1 School-Age Children and Adolescent: Who are they?	1
1.2 Nutrition and Health Problems for School-Age Children and Adolescents	2
1.3 School-Based Nutrition Promotion for School-Age Children and Adolescent as a Strategic Invesment for Nurturing Quality Human Resources in Indonesia	3
1.4 The Strategic Role of School	4
<b>2. PROGRAMS TO IMPROVE NUTRITION IN SCHOOL-AGE CHILDREN AND ADOLESCENTS IN INDONESIA</b>	<b>5</b>
2.1 Government Program for School-Based Nutrition Promotion	7
2.2 Initiatives and Innovations Regarding School Based Nutrition Promotion from Universities, Non-Government Organizations and Private Sectors	13
<b>3. KEY FACTORS FOR SUCCESSFUL AND SUSTAINABLE SCHOOL BASED NUTRITION PROMOTION</b>	<b>15</b>
<b>4. CLOSING REMARK</b>	<b>21</b>
<b>REFFEERENCES</b>	<b>22</b>

# LIST OF TABLES

Table 1.	Various Approach for Improving Nutrition in School Age Children and Adolescent Outside School	6
----------	-----------------------------------------------------------------------------------------------	---

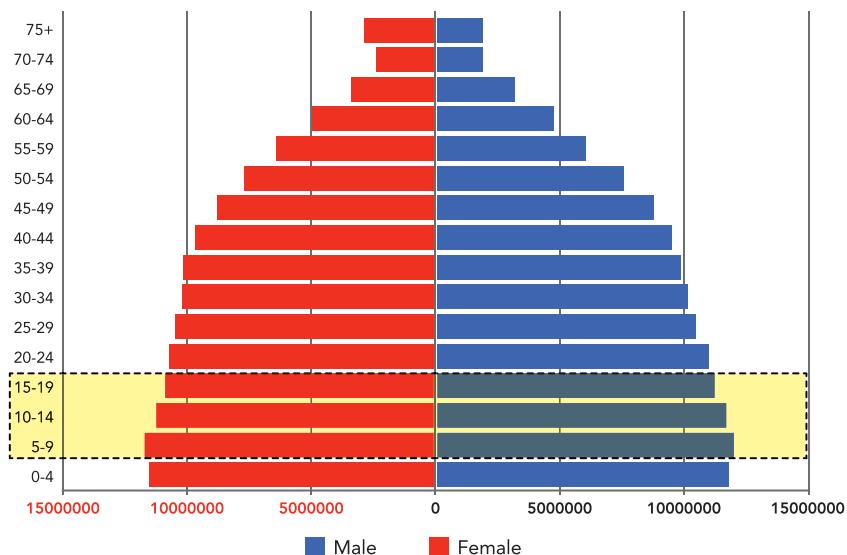
# LIST OF FIGURES

Figure 1.	The Importance of Adolescent Age Group in the Indonesia Population Pyramid	1
Figure 2.	The Fact about Adolescents in Indonesia	2
Figure 3.	School Age Children and Adolescent Nutrition in the Life Cycle	3
Figure 4.	Main Activities in the UKS Triad	7
Figure 5.	School Based Nutrition Promotion	8
Figure 6.	My Health Book for Elementary School (left) and Junior and Senior High School (right)	9
Figure 7.	Guideline fo Prevention and Management of Anemia in Adolescent Girls and Women in Reproductive Age	10
Figure 8.	Technical Guideline for Healthy School/ Madrasah Model	11
Figure 9.	ProGAS Integrated Scheme	13
Figure 10.	School Based Nutrition Intervention Conducted by Universities, Non-Government Organization and Private Sectors	14

## 1. INTRODUCTION

### 1.1 School-Age Children and Adolescent: Who are they?

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<sup>1</sup>. School age children are children between the age of 5 to 10 years old and adolescent are those between the age of 10 to 18 years old. While the pre-adolescent age range are different for boys and girls, where for the boys the age range is 10 to 12 years old and 9 to 11 years for girls<sup>2</sup>.



School-age children and adolescent (age 7-18 years old) are the key to the health of our future generations. Optimum physiological development during childhood and adolescence prepares them to be able to live a healthy and productive life in their adulthood; and for the adolescent girls to prepare them for future healthy pregnancies, safe deliveries, and to nurture healthy babies and children as they become an adult.

**Figure 1. The Importance of Adolescent Age Group in the Indonesia Population Pyramid**

Source: Proyeksi Penduduk Indonesia 2010-2035<sup>3</sup>

## 1.2 Nutrition and Health Problems for School-Age Children and Adolescents

Nutrition and health problems in school-age children and adolescents can be a continuation of nutrition and health problems in infancy and childhood or it can be new problems that arise during school-age and adolescence period. If not addressed properly, these nutrition and health problems occurring during the school-age and adolescence period can contribute to the emergence of nutrition and health problems in adulthood and old age<sup>2</sup>.

## FACTS ABOUT SCHOOL AGE CHILDREN AND ADOLESCENT

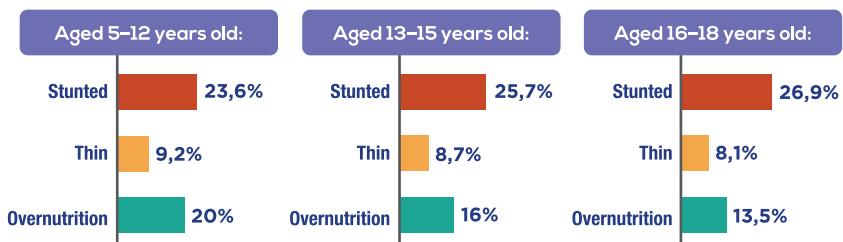
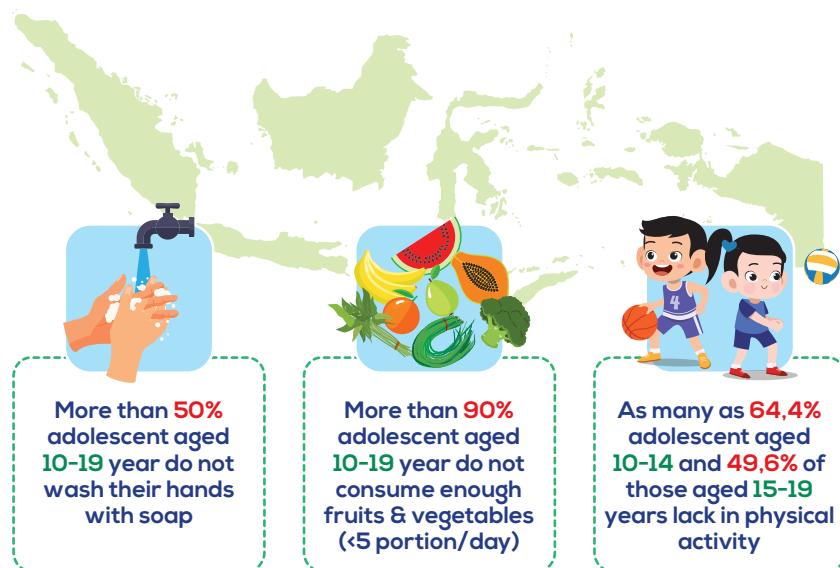
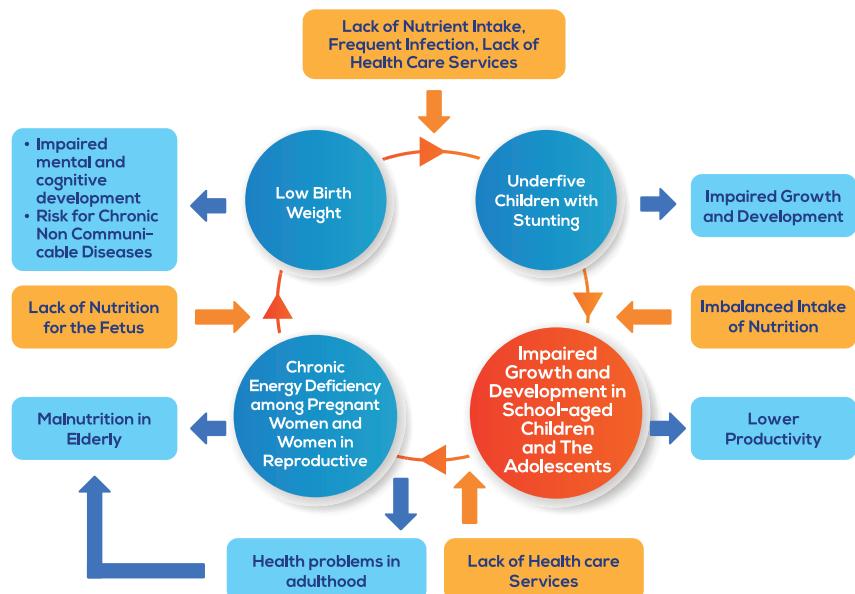


Figure 2. The Fact about Adolescents in Indonesia

Source: Riset Kesehatan Dasar, 2018<sup>4</sup>

### 1.3 School-Based Nutrition Promotion for School-Age Children and Adolescent as a Strategic Invesment for Nurturing Quality Human Resources in Indonesia

Within the life cycle, school-age children and adolescents periods are the last opportunity in preparing them to become healthy and productive adults. Moreover, healthier and more productive adults also mean a healthier and caring parents, thus impacted the quality of the next generation. As an example, a women with better nutrition will give birth to a healthier child. This is surely an opprtunity for investment to advanced the quality of the nations human resources. In addition to the benefit from nutrition, there is also the benefit from the education side. Girls who remain in school tend to delay childbirth longer than those who drop out of school, and by postponing childbirth brings further benefits from lower birth rates, better birth outcomes, and also better health of the child. In addition, adolescents with lower disease rates due to better nutrition will reduce the overall disease transmission in the wider community. Therefore, the benefits of improving health in school-age children and adolescents are a combination of all the benefits for health and education, both in the short and long term.



**Figure 3. School Age Children and Adolescent Nutrition in the Life Cycle**

Source: *Gizi dalam Daur Kehidupan*<sup>5</sup>

## **1.4 The Strategic Role of School**

Schools have a strategic role in helping students improving their healthy eating habit as the schools can act as a hub to convey the accurate and consistent messages about balanced diet. The school can also take part on providing access for nutritious food, as well as providing a means to learn and create an environment that encourage good practice in nutrition and health. The World Bank states that school-based food and nutrition programs are an important component in an effective education system. This is because school-based food and nutrition programs can increase knowledge, skills, capacities and practices related to food and nutrition for students, parents and families, as well as teachers and education personnel. The existence of school-based food and nutrition programs can be more effective if complemented by community and parent empowerment, health and hygiene facilities, a healthy school environment and supportive policies. Thus, schools can empower students and stakeholders by providing appropriate knowledge and skills to support healthier eating habit<sup>6-8</sup>.

## **2. PROGRAMS TO IMPROVE NUTRITION IN SCHOOL-AGE CHILDREN AND ADOLESCENTS IN INDONESIA**

In 2018 the Coordinating Ministry for Human Development and Culture (*Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan - Kemenko PMK*) issued a Ministerial Regulation number 1 year 2018 regarding the National Action Plan for the health of school-age children and adolescents 2017-2019 (*Rancangan Aksi Nasional kesehatan anak usia sekolah dan remaja - RAN UKESREM*), intended as a reference for policy directions, planning and implementation of health programs for ministries / government institutions (central and sub-national), community organizations, professional organizations, the private sector, and research institutions. The National Action Plan focuses in eight health issues namely sexual and reproductive health, HIV / AIDS, drugs and addictive substances, nutrition, violence and injury, mental health, sanitation and personal hygiene, and non-communicable diseases. Nutrition is related to at least 3 other health issues, namely sexual and reproductive health, sanitation and personal hygiene and non-communicable diseases<sup>9</sup>.

There are 5 (five) strategies in the implementation of the National Action Plan for the Health of School-Age Children and Adolescent, namely (i) increasing the knowledge and skills of school-age children and adolescents towards the 8 (eight) health issues; (ii) strengthening access to and quality of comprehensive health services for school-age children and adolescents; (iii) strengthening the institution to improve the health of school-age children and adolescents; (iv) increasing procurement and strengthening access to strategic information; and (v) significantly increase the involvement of school-age children and adolescents<sup>9</sup>.

Nutrition improvement for school-age children and adolescents can be done through three (3) approaches, namely the health care institution-based approach, community-based approach and school-based approach. Referring to the rapid development of information technology and its increasing utilization among adolescents, an internet-based nutritional improvement approach has been applied. School-based nutrition improvement efforts are mainly under the scheme of the School Health Program (*Usaha Kesehatan Sekolah - UKS*) implementation.

**Table 1. Various Approach for Improving Nutrition in School Age Children and Adolescent Outside School**

**Health Care Institution-Based Approach**

**Adolescent Friendly Health Care Services  
(Pelayanan Kesehatan Peduli Remaja-PKPR) in the Community Health Center<sup>10</sup>**

**Aim:** Ensuring school-age children and adolescents have access to promotion, prevention, treatment and health care services according to their health needs.

**Targets:** School-age children and adolescents.

**Activities:** Health care services regarding puberty and reproductive health.

**Community-Based Nutrition Approach**

**Community Integrated Health Post for Adolescent  
(Posyandu Remaja)<sup>11</sup>**

**Aim:** Improving the degree of health of adolescents through enhancing healthy living skills through community empowerment activities.

**Target:** Adolescents aged 10-18 years.

**Activities:** 5 table services: Registration, Anthropometry measurement and others (weight, height, abdominal circumference, arm circumference, blood pressure and specifically for young women, hemoglobin measurement), Recording of measurement results, Health services and counseling with health personnel, and Communication, Information and Education on general health and nutrition.

**Internet-Based Approach**

**Blogs, Websites, pod cast and Social media account to convey information, Info graphic and audiovisual messages about nutrition.**

**Aim:** To disseminate information related to nutrition and health.

**Targets:** School-age children and adolescents.

**Activities:** Nutrition education through blogs, websites and social media accounts.

## 2.1 Government Program for School-Based Nutrition Promotion

### a. School Health Program (*Usaha Kesehatan Sekolah - UKS*)

School Health Program (*Usaha Kesehatan Sekolah - UKS*) is a media for various health-related activities in schools. UKS has been long implemented in Indonesia, starting with a pilot project since 1956<sup>12</sup>. In 2014, four Ministries issued a Joint Regulation on School/Madrasah on the development of School/Madrasah Health Program (UKS/M). The joint regulations are written in the Ministry of Education and Culture, Minister of Health, Minister of Health Religion, and 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. In the documents, the objectives of UKS/M are to improve the quality of education and learning achievement of students by improving clean and healthy living behaviors and creating a healthy educational environment, so as to enable the harmonious growth and development of participants students. The UKS/M main activities are known as the UKS Triad, namely health education, health services and fostering a healthy school environment<sup>13</sup>.

**School Health Program (*Usaha Kesehatan Sekolah/Madrasah-UKS/M*)  
is an 'entry point' for various health promotion activities in the  
school/madrasah**



#### 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 4. Main Activities in the UKS Triad**

Source: Strategi Komunikasi UKS/M<sup>14</sup>

One component of the activity in the UKS triad is Clean/Hygienic and Healthy Lifestyle Education (*Pola Hidup Bersih dan Sehat - PHBS*). PHBS in schools encourages students, teachers, parents and the whole school community to implement healthy behaviors as well as creating healthy school environment. Examples of PHBS activities at school include washing hands with soap before and after eating, eating healthy snacks, using sanitary and healthy latrines, regular exercise, eradicating mosquito larvae, not smoking in the school environment, garbage management and doing community service involving the whole school community to create a healthy environment<sup>15</sup>.

Some example of the intervention programs that have been carried out at school are the "my health report card", weekly iron and folic acid supplementation (*Tablet Tambah Darah - TTD*) for adolescent girls, the implementation of a healthy school model and the nutrition program for school children (*Program Gizi Anak Sekolah - ProGAS*).

#### Current Government Programs for Nutrition Intervention/Promotion

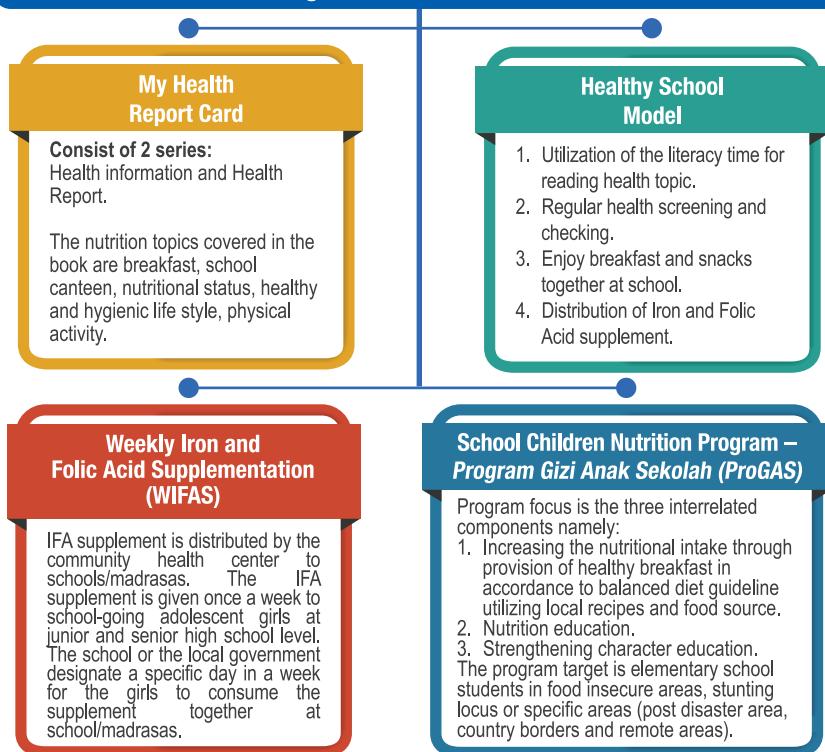


Figure 5. School Based Nutrition Promotion

## b. My Health Report Card

This book was published by the Family Health Directorate of the Ministry of Health in 2017. This book consists of two series, namely the Health Information series (containing information related to health, growth and development of students) and the Health Record series (containing students' health records from the results of health assessments in schools, health centers or other health facilities). These two series are used side by side. My Health Report Card is expected to be read by the students (for example during a 15-minute literacy session) and parents. In addition, health workers and teachers are asked to explain the contents of the books to the students.



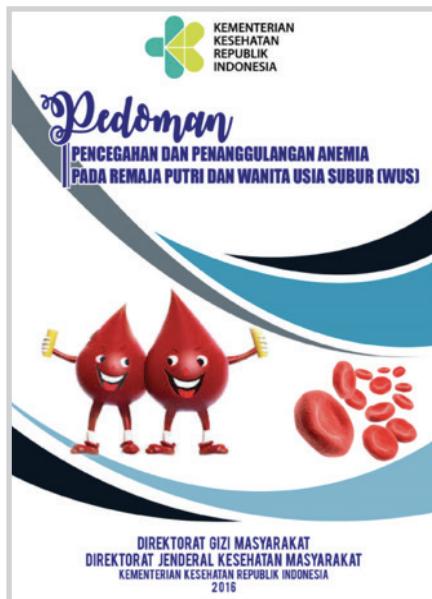
**Figure 6. My Health Book for Elementary School (left) and Junior and Senior High School (right)**

Source: Ministry of Health of Republic of Indonesia, 2017<sup>16</sup>

## c. Iron and Folic Acid Supplementation for Adolescents

The provision of weekly iron and folic acid supplement (WIFAS) for female adolescents is one of the activities under the health services component in the UKS Triad. The high prevalence of anemia in adolescent girls and the low intake of iron from food makes the supplementation important. The provision of WIFAS for adolescent girls has started since 2000, but it was still voluntary and has not become a routine program. As written in the Circular of the Director General of Public Health number HK.03.03 /V/ 0595/2016 concerning the provision of iron and folic acid supplement for adolescent girls and women of reproductive age, the aim of WIFAS is to improve the nutritional status of young women so as to break the cycle of stunting, prevent anemia, and increase iron reserves in the body to prepare a quality and productive future generation.

Experts recommend giving the iron and folic acid supplement once every week to adolescent girls throughout the year to facilitate program implementation and effectiveness. The program is delivered through UKS/M at school/madrasah by determining the fixed day in a week as 'drinking IFA supplement together'. The Puskesmas distributes the IFA supplement to schools/madrasah through UKS/M activities, and gradually conduct hemoglobin checks as part of the health screening activities for the adolescents. Monitoring of compliance of the adolescents to consume the supplement is carried out by the UKS/M team in each school, with recording and reporting across level. The implementation of this program is closely coordinated by the Health Office, the Education Office and the Ministry of Religion in the districts/cities/provinces. The Ministry of Health has published the Guideline for Prevention and Prevention of Anemia in Adolescent Girls and Women in Reproductive Age in 2016 as a detailed guidance on the program implementation<sup>17</sup>.

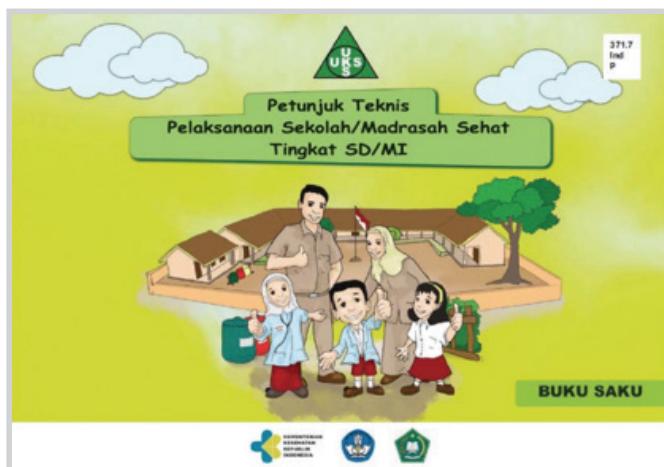


**Figure 7. Guideline fo Prevention and Management of Anemia in Adolescent Girls and Women in Reproductive Age**

Source: Ministry of Health of Republic of Indonesia, 2016<sup>17</sup>

#### **d. Healthy School/Madrasah Model**

In Indonesia, there is a healthy school/madrasah model, where schools/madrasah must meet the existing requirements in order to get the title as a Healthy School/Madrasah. Several activities need to be carried out by the healthy school/madrasah model at the elementary school and junior high school levels<sup>18</sup>, are (1) Utilization of literacy hours for reading health material, (2) Health screening and periodic examinations, (3) Breakfast and snacks together (the students bring their own food in accordance to the balanced diet guideline), and (4) Providing iron and folic acid supplement to adolescent girls. The technical guidelines for implementing the healthy school model have been developed by the Ministry of Health, the Ministry of Education and Culture and the Ministry of Religion.



**Figure 8. Technical Guideline for Healthy School/ Madrasah Model**

Source: Ministry of Health of Republic of Indonesia, 2018<sup>18</sup>

#### **e. Program Gizi Anak Sekolah (ProGAS)**

The Ministry of Education and Culture launched the Nutrition Program for School Children (*Program Gizi Anak Sekolah - ProGAS*) in 2016. ProGAS is a government assistance program implemented in selected primary schools which meet certain criteria. The program has many objectives, including increasing nutrition intake, building good breakfast habits, strengthening character building education, as well as building good clean/hygienic and healthy lifestyle of the students.

*ProGAS* was carried out 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. *ProGAS* targets districts that fall into the category of food and nutrition insecure, has high stunting prevalence, as well as areas that have specificities such as remote islands, border areas or post-disaster. Whereas the selection of the *ProGAS* participating schools is carried out in coordination with the District Education Office.

The *ProGAS* is carried out through three interconnected components, namely:

1. Increasing the nutrition intake of the students through provision of healthy breakfast in accordance to balanced diet guideline utilizing local recipes and food source prepared by community-based cooking groups at school. In 2019, the breakfast is provided for 60 days of children's meals (*Hari Makan Anak*) per student.
2. Nutrition education provided to the students, teachers, parents and the cooking group.
3. Strengthening character building education 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 Lifestyle (PHBS).



**Figure 9. ProGAS Integrated Scheme**

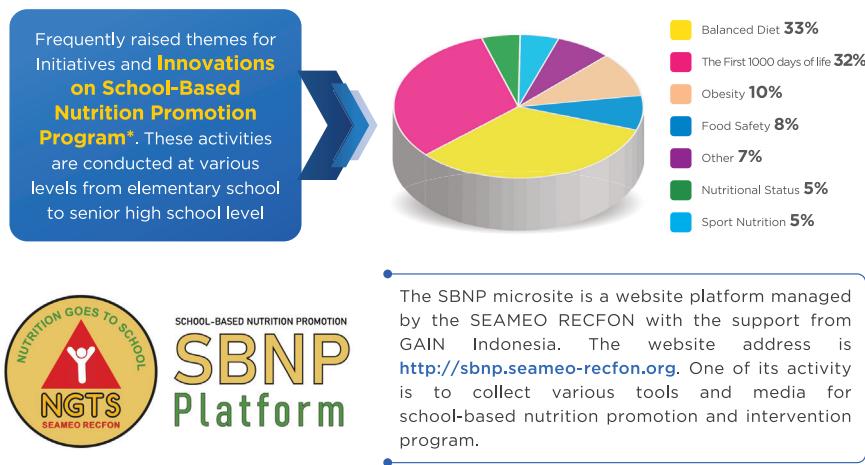
Source: Best Practices ProGAS<sup>19</sup>

To support the implementation of nutrition education activities, a ProGAS Module has been developed in collaboration with the Ministry of Health, the National Food and Drug Control Agency, the Faculty of Human Ecology, Bogor Agricultural University, and SEAMEO RECFON. This module covers the topics (1) Provision of healthy food (menu planning, preparation, processing and serving breakfast; food safety assurance, prevention and control of food poisoning), (2) Nutrition Education (nutrition requirements of school children, and Balanced Nutrition Guidelines), and (3) Strengthening Character Education (the main values of Character Education, PHBS, development of fish ponds and school gardens).

## 2.2 Initiatives and Innovations Regarding School Based Nutrition Promotion from Universities, Non-Government Organizations and Private Sectors

We did a literature review on policy documents and studies to gather information on efforts to improve and promote nutrition in schools

carried out by universities, NGOs and the private sector. We found that various innovative efforts and initiatives in developing models of school-based nutrition education have been carried out at the elementary, junior high and high school levels; covering topics on balanced diet, the First 1000 Days of Life (1000 HPK) which includes adolescent girls' health, obesity, food safety and others. These initiatives and innovations can be utilized as an alternative for local governments to scale-up and improve coverage. These innovations and initiatives are summarized and can be accessed widely in a sharing platform called Microsite School-Based Nutrition Promotion (SBNP) with the domain [sbnp.seameo-recfon.org](http://sbnp.seameo-recfon.org) which is managed by the SEAMEO Regional Center for Food and Nutrition (RECFON) -Center of Study University of Indonesia Regional Nutrition (*Pusat Kajian Gizi Regional Universitas Indonesia -PKGR UI*) with the support from the Global Alliance for Improved Nutrition (GAIN).



**Figure 10. School Based Nutrition Intervention Conducted by Universities, Non-Government Organization and Private Sectors**

### **3. KEY FACTORS FOR SUCCESSFUL AND SUSTAINABLE SCHOOL-BASED NUTRITION PROMOTION**

#### **Policy**

- Promoting nutrition for school-age children and adolescents is protected by the Indonesian 1945 Constitution article 28 paragraph 2, which is further elaborated in several Laws that address Children, namely: Law No. 23 of 2002 which was revised in 2014 as Law No. 35 of 2014 concerning Child Protection and Law No. 36 of 2009 concerning Health.
- The existence of the Act, underlies the formation of a number of policies, such as Government Regulations, Presidential Instruction, Ministerial Regulations, Joint Ministerial Regulations and Governor/Regent Regulations.
- Challenges and Constraints:
  - To have clear description on roles and responsibilities of the stakeholders, and the coordination across sectors in order to have integrated programs and efforts.
  - To have responsive policy development towards changes, both socio-economic change, cultural change, scientific change and technological change.
  - To have good accountability in implementing the policies. Inputs, processes and outputs from various sectors need to be communicated regularly for the purpose of planning, identifying challenges and solutions.
  - Stronger supervision of the implementation of laws and regulations by encouraging the independence of program implementers and increasing cooperation between sectors and between the central and sub-national government.
  - To have periodic policy reviews to ensure responsive and adaptive to changes and prevent overlapping/redundancy<sup>20</sup>.

#### **Coordination**

- Cross-program coordination and cross-sector coordination is very crucial to improve and promote nutrition among school-age children and young people that involves many sectors at different organizational levels.

- Coordination of the implementation of the National Action Plan for School Age Children and Youth in 2017-2019, is carried out through the Task Force at the national, provincial and district / city level, which consists of the Steering Committee, Technical Committee, and Working Group<sup>9</sup>.
- Coordination starts from the preparation and planning period, both at the central, sub-national and school levels, to identify problems, availability of resources, and review of activity models.
- Some keys to successful coordination in the UKS program are:
  - Availability of a joint commitment across sectors with clear legal force, which is stated in the School Health Program Joint Decree.
  - The existence of clear cooperation documents, for example the existence of a decree or MoU.
  - Availability of a “leading sector” in leading and coordinating.
  - Strong commitment and coordination with adequate socialization, regular meetings and integrated joint monitoring and evaluation.
  - Building good personal relationships for the coordination that requires good understanding of the program and clarity of roles and responsibilities of each party<sup>20</sup>.

## Institutional and Organization

- In accordance with the Indonesian policy, there are 5 main ministries / institutions that oversee nutrition improvement and promotion programs for school-aged children and adolescents, namely the Ministry of Health, the Ministry of Education and Culture, the Ministry of Religion, the Ministry of Internal Affairs and the Ministry of Women’s Empowerment<sup>9</sup>.
- In addition to institutions at the central level, the decentralized system also requires provincial and district/city areas to have the capacity to analyze the situation and make activity plans based on priority issues in their respective area.
- This institution and organization is very important because of the multi-sector nature of the program, from the Central level (Ministry/Institution), sub-national level (Provincial and Regency /City Governments), to the implementers at schools/madrasah and Puskesmas level.
- Organizational arrangements are based on their functions in the implementation of policies and are equipped with appropriate quality human resources and other resources to prevent duplication of tasks and functions.
- Effective and efficient organizational governance is also needed at the school/madrasah level to facilitate the implementation, coordination and supervision of activities and accountability for program implementation.

## **Communication**

- Good communication and coordination between institutions, between sectors and between programs is pivotal in the formation of convergence both in terms of budget, planning, implementation and monitoring, and evaluation. 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.

## **Leadership**

- The complexity of school-age children and adolescent nutrition and their health problems as well as the cross ministries and cross-sectoral institutions involved requires strong leadership from the health and education sector under the coordination of the Coordinating Ministry for Human Development and Culture<sup>9</sup>.
- Strong leadership in all level is very crucial to facilitate collaboration between various sectors and to ensure that there is mainstreaming on adolescent health and nutrition in policies and programs in all sectors.
- Strong leadership is characterized by a unity of vision and mission, as well as planned, well-communicated and efficient program orchestration.

## **Integration**

- Program integration is the key to increase efficiency and effectiveness.
- Integration starts at the central level between the Ministries/Institutions level, followed by sub-national level, and to Puskesmas, village/kelurahan and the school/madrasah level.
- Integration does not only involve cross-sector and programs, but also integration in implementation when different approaches are carried out for the same program objectives.
- Integration can also be implemented in the learning process through the curriculum.

## **Community Empowerment**

- Community empowerment should be part of the program where the children and adolescents as well as the school community as the program beneficiaries are also the key actors in the program.
- The main purpose of the empowerment is to increase 'demand' and acceptance of the program.
- Considering the amount of time for the students to interact with their family, the active support and participation from parents will further guarantees the success of the program.

## **Reward**

- Reward should be given as a follow up to the empowerment effort<sup>20</sup>.
- Rewards are awarded to program implementers at the central and sub-national levels, as well as at the school/madrasah level.
- At the school/madrasah level, recognition and appreciation can be conferred by the principals and related agencies to teachers for their important role in the implementation of the program, to students who motivate their peers, students who practice healthy eating, and to parents through their contribution for the healthy school canteens and other program.

## **Monitoring**

- Routine monitoring should focus on input and processes indicators.
- Routine monitoring enables improvement of any deviations or errors as early as possible.
- Constructive feedback and proper utilization of monitoring results are important part of improving the quality of program implementation. These can improve the quality of implementation as well as improving the motivation for the monitoring process itself. In addition, the use of digital technology can improve monitoring efficiency.

## **Infrastructure**

- Infrastructure and policy support are important for nutrition improvement and promotion programs for school-age children and adolescents.
- The right policies as well as quality human resources, and advances in science and technology that encourage creativity and innovation is considered as "Soft Infrastructure".
- The infrastructure to support the program implementation include transportation facilities, school buildings and facilities, health centers, clean water and sanitation, electricity, as well as more advanced technology-related infrastructure to support the development in the digital era.

## **Evaluation**

- Evaluation is a systematic assessment of the achievement against predetermined objectives, which include a series of results (inputs, activities, outcomes and impacts), the implementation process, context factors and causes to determine the success or failure of the program.
- Evaluation should be conducted 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 provide evidence-based as well as reliable and useful information for determining future program policies. Program evaluation is also a form of program accountability.

## Key Factors For Successful Program



#### **4. CLOSING REMARK**

In accordance with the vision for “*Indonesia maju*”, school-age children and adolescent health and nutrition plays a key role for the health and productivity of the future generations. There are many opportunities to improve the health and nutrition condition of this age group. Moreover, adolescent health now has gained big attention in various sectors and is now put as a separate part from the child or adult health efforts. It has become an important period that is worthy of its own attention and within these adolescent health issues is improvement in nutrition and health promotion through schools.

There have been many efforts made by various sectors for the school-based nutrition promotion. The government has now enacted various policies related to school-age children and adolescent health and improved health and nutrition promotion in schools. Moreover, many studies have also been done. The next important step is to scale-up these efforts and ensure equitable implementation of policies in accordance with the expected quality standards. Thus, much remains to be done. But there is increasing evidence that if we don't pay enough attention to adolescent health and nutrition, the future stakes on the health sector are too high to ignore. Therefore, comprehensive programming at the central level really needs to be strengthened. What we need now is an integrated step from various sectors and various parties both governments, private and the community to improve school age children and adolescent health and nutrition. Most importantly, that steps need to start now.

## REFFERENCES

1. Undang-Undang Republik Indonesia Tentang Perlindungan Anak Nomor 23 Tahun 2002. Indonesia; 2002:147-173.
2. Brown JE. *Nutrition through the Life Cycle*. 4th ed. Wadsworth: Thomson Learning; 2011.
3. Subdirektorat Statistik Demografi. *Proyeksi Penduduk Indonesia 2010-2035*. Jakarta: Badan Pusat Statistik; 2013. doi:10.1007/BF00830441
4. Kementerian Kesehatan RI. *Laporan Hasil Riset Kesehatan Dasar (Riskesdas) Indonesia Tahun 2018*. Jakarta; 2018.
5. Pritasari, Damayanti D, Lestari NT. *Gizi Dalam Daur Kehidupan*. Jakarta: Pusat Pendidikan Sumber Daya Manusia Kesehatan Badan Pengembangan dan Pemberdayaan Sumber Daya Manusia Kesehatan; 2017.
6. Bagherniya M, Sharma M, Mostafavi Darani F, et al. *School-Based Nutrition Education Intervention Using Social Cognitive Theory for Overweight and Obese Iranian Adolescent Girls: A Cluster Randomized Controlled Trial*. Int J Community Health Educ. 2017;38(1):37-45. doi:10.1177/0272684X17749566
7. Hidayanty H, Bardosono S, Khusun H, Damayanti R. *The Use of Social Cognitive Theory to Develop and Evaluate the Effect of Healthy Lifestyle Program among Overweight Adolescents* [DIsertasi]. Jakarta: Universitas Indonesia; 2016.
8. Kolopaking R, Firmansyah A, Umar J, Fahmida U. *Use of The Self-Regulatory Approach to Develop and Evaluate the Nutrition Education Effectiveness* [DIsertasi]. Jakarta: Universitas Indonesia; 2010.
9. Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan Republik Indonesia. *Peraturan Menteri Koordinator Bidang Pembangunan Manusia Dan Kebudayaan Republik Indonesia Nomor 1 Tahun 2018 Tentang Rencana Aksi Nasional Kesehatan Anak Usia Sekolah Dan Remaja Tahun 2017-2019*. Indonesia; 2018.
10. Kementerian Kesehatan Republik Inodnesia. *Pedoman Standar Nasional Pelayanan Kesehatan Remaja (PKPR)*. Jakarta; 2014.
11. Direktorat Kesehatan Keluarga. *Petunjuk Teknis Penyelenggaraan Posyandu Remaja*. Jakarta: Kementerian Kesehatan RI; 2018.

12. Kementerian Kesehatan Republik Indonesia. *Pedoman Akselerasi Pembinaan dan Pelaksanaan UKS*. Jakarta: Bina Kesehatan Anak, Kementerian Kesehatan RI; 2014
13. Menteri Pendidikan dan Kebudayaan Republik Indonesia, Menteri Kesehatan Republik Indonesia, Menteri Agama Republik Indonesia, Menteri Dalam Negeri Republik Indonesia. *Peraturan Bersama Antara Menteri Pendidikan Dan Kebudayaan Republik Indonesia, Menteri Kesehatan Republik Indonesia, Menteri Agama Republik Indonesia, Menteri Dalam Negeri Republik Indonesia No 39*. Indonesia; 2014
14. Aliyas, Suharyanto A, Laksmi DNMDP, Zulkifli, Nusi H. *Strategi Komunikasi Usaha Kesehatan Sekolah/Madrasah (UKS/M)*. Jakarta: Sekretariat Direktorat Jendral, Direktorat Jendral Pendidikan Dasar dan Menengah, Kementerian Pendidikan dan Kebudayaan; 2019.
15. Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat Kementerian Kesehatan. PHBS. <http://promkes.kemkes.go.id/phbs>. Published 2016. Accessed November 20, 2019.
16. Kementerian Kesehatan RI. *Rapor Kesehatanku Buku Informasi Kesehatan Peserta Didik Tingkat SMP/MTs Dan SMA/MA/SMK*. Jakarta: Kementerian Kesehatan RI; 2017.
17. Direktorat Gizi Masyarakat Direktorat Jendral Kesehatan Masyarakat Kementerian Kesehatan Republik Indonesia. *Pedoman Pencegahan Dan Penanggulangan Anemia Pada Remaja Putri Dan Wanita Usia Subur (WUS)*. Jakarta: Kementerian Kesehatan RI; 2016.
18. Kementerian Kesehatan RI. *Petunjuk Teknis Pelaksanaan Sekolah/ Madrasah Sehat Tingkat SD/MI*. Jakarta: Kementerian Kesehatan RI; 2018.
19. Widaryat W. Best Practice Program Anak Sekolah (ProGAS). Presented at the Workshop on Establishment of Southeast Asian School-based Nutrition Promotion (SEA-SBNP) Working Group, Jakarta : 2018.
20. Roche ML, Bury L, Yusadiredja IN, et al. Adolescent girls' nutrition and prevention of anaemia: a school based multisectoral collaboration in Indonesia. BMJ. 2018;363:k4541. doi:10.1136/bmj.k4541

### Note:





# SCHOOL BASED NUTRITION PROMOTION IN INDONESIA

**Book 2: for Policy Makers**

ISBN 978-623-7759-25-6 (Book 2 PDF)

A standard one-dimensional barcode representing the ISBN number 978-623-7759-25-6.

**SEAMEO RECFON Building**

Jl. Salemba Raya No. 6  
Jakarta 10430, Indonesia  
Phone +62 21 3193 0205 - Fax. +62 21 391 3933  
Website: [www.seameo-refcon.org](http://www.seameo-refcon.org)  
email: [information@seameo-refcon.org](mailto:information@seameo-refcon.org)