

Food and Nutrition Innovation for Childhood: Nutrition Education Module for School Children in Southeast Asia

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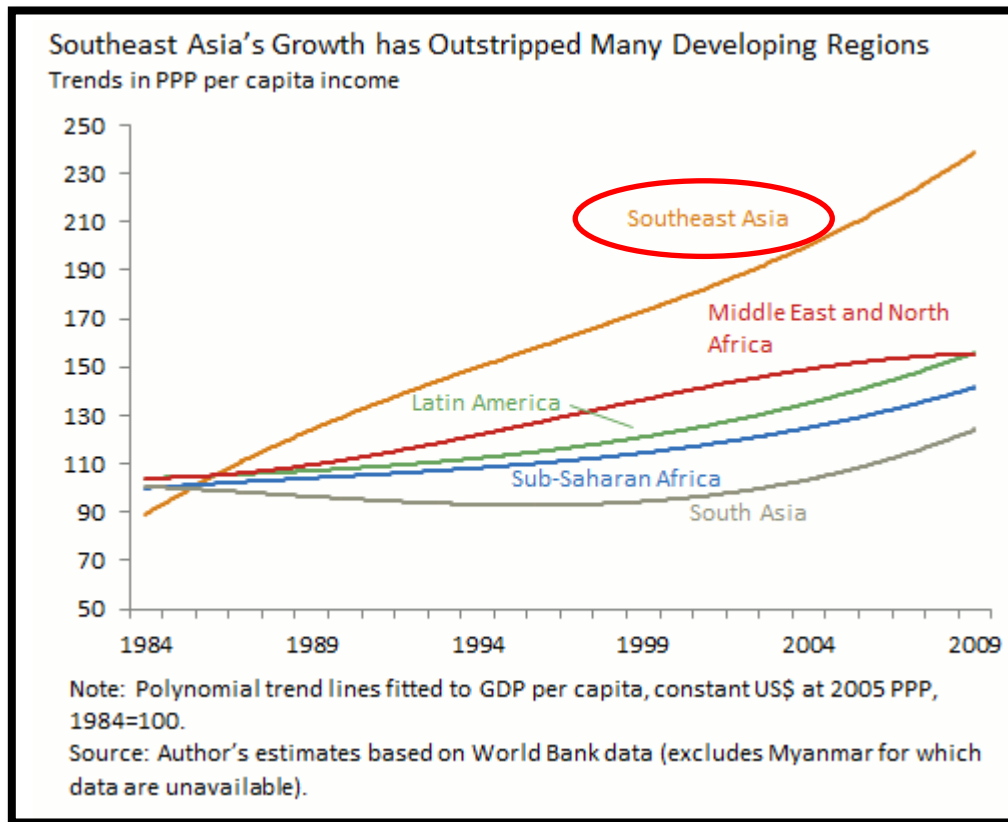
Chairman, Southeast Asia Public Health Nutrition Network

President, Nutrition Society of Malaysia

CONTENT

- 1. Existence of double-burden of malnutrition in SEA countries**
- 2. Establishment of Southeast Asia Nutrition (SEA-PHN) Network – rationale, objectives, organisation**
- 3. Key activities of SEA PHN Network**
- 4. A SEA-PHN Network Nutrition Module for SEA: Good Nutrition, Key to Healthy Children**
 - a. Rationale; goal**
 - b. Specially designed nutrition education module**
 - i. Components of the module**
 - ii. Country customisation of SEA-PHN Network Nutrition Module**
 - c. Implementation, including monitoring & evaluation**
- 5. Concluding remarks**

Rapid socio-economic development brought about changes in nutrition scene



All SEA countries experienced rapid advances in socio-economic development

Changes in lifestyle

Changes in food
consumption patterns

**Dramatic changes in the
nutritional problems!**

<http://carnegieendowment.org/2011/07/07/southeast-asia-crouching-tiger-or-hidden-dragon-pub-44964>

Double Burden of Malnutrition

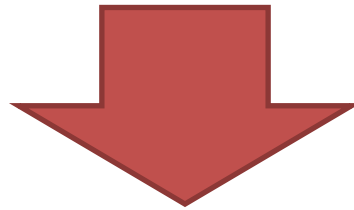
Undernutrition problem

- **Significant decline** over the years
- Growth retardation (esp. **stunting & underweight**) & **micronutrient deficiencies** among children & women of reproductive age remain **high** in some countries

Diet-related chronic diseases (NCDs)

- **Heart disease, diabetes and cancers** have become the major causes of death
- **Overweight & obesity** & other risk factors have **risen to high levels** among children & adults

Nutrition societies/associations can **play greater role to support government efforts** in implementing nutrition programmes



**Southeast Asia Public Health Nutrition
(SEA-PHN) Network
was established in 2014**

A network among **Nutrition Societies/Associations** in Southeast Asia, in partnership with private sector
Multi-stakeholder, public-private collaboration encouraged for effective implementation of intervention programmes



Southeast Asia Public Health Nutrition (SEA-PHN) Network

Objectives

- Establish and maintain **an interactive network among nutritionists** in the region, **promoting periodic exchange of documentation, experiences and activities**
- Enhance **collaboration in tackling all public health nutrition** issues, including nutrient deficiencies and diet-related chronic diseases

Inaugural meeting (launch)



Inauguration of the Southeast Asia Public Health Nutrition (SEA-PHN) Network by YB Dato' Seri Dr Hilmi bin Haji Yahaya, Deputy Minister of Health, Malaysia on June 2, 2014, Kuala Lumpur.

- 1st Annual Meeting and official launch was held in Kuala Lumpur on **June 2, 2014**
- In conjunction with the 29th Scientific Conference of the Nutrition Society of Malaysia
- Operational framework was confirmed
- A council was established to manage the activities of the network

Organisation

5 nutrition societies/associations are members*:



**Food and
Nutrition Society
of Indonesia
(Pergizi Pangan
Indonesia)**



**Nutrition Society
of Malaysia**



**Nutrition
Foundation of the
Philippines, Inc.**



**Nutrition
Association of
Thailand (NAT)**



**Vietnam Nutrition
Association
(VINUTAS)**

***Members of the Network shall comprise Nutrition Societies/Associations affiliated to the Federation of Asian Nutrition Societies (FANS).**

Council members (2017-2020)



Organisation

Associate Members

- Selected corporate companies have been invited to participate in Network activities as associate members
- In the spirit of public-private partnership in promoting public health nutrition

Current Corporate Partners (2018):



Key Activities - 1

Conduct regular meetings of Members & Associate Members

Meetings conducted at least once a year to plan and implement projects & activities; rotate among member countries and usually in conjunction with a scientific Conference for scientific exchanges



2nd meeting in Jakarta, 2015



3rd meeting in Manila, 2016



4th meeting in Hanoi, 2016



5th meeting in Kuala Lumpur, 2017



6th meeting in Ho Chi Minh City, 2017

Key Activities - 2

Dedicated website: <https://sea-phn.org/>

Serves as another channel of communication among members and associate members of the Network and nutritionists in the region



What do we do?

We conduct regular interactions to enable closer sharing of experiences and activities.

[See our key network activities >](#)



Who are our members?

We are a network of nutrition societies, government agencies and private companies in Southeast Asia.

[Get to know our members >](#)



Current events

Network members conduct regular scientific meetings and nutrition programmes.

[Find events near you >](#)

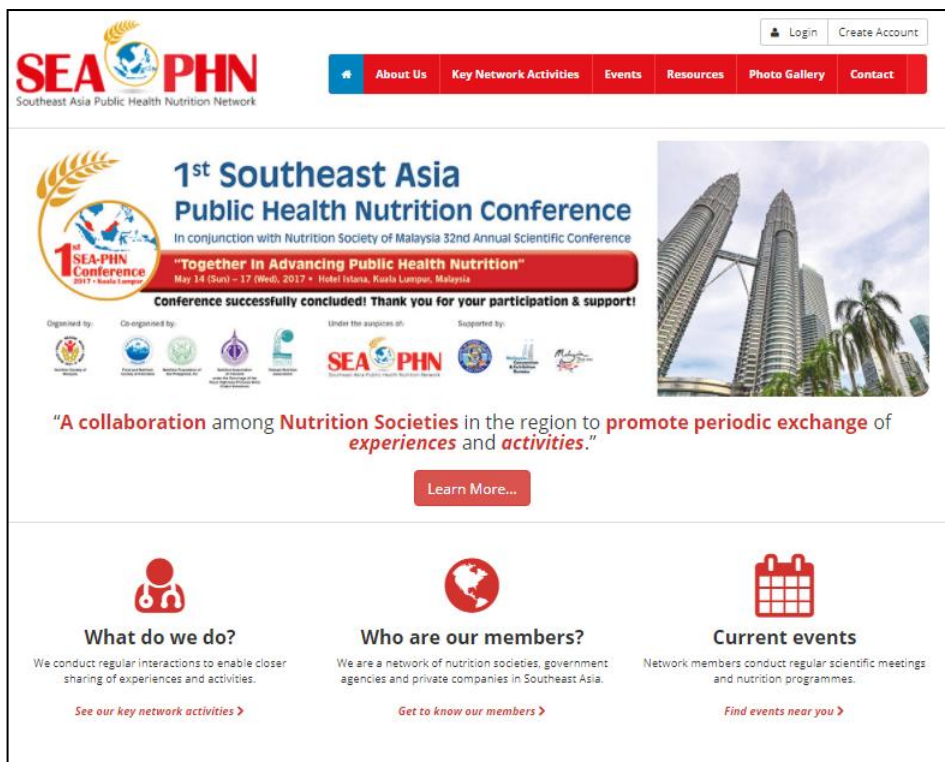
Subscribe to our e-mail newsletter to receive event & activity updates!

[Subscribe here](#)

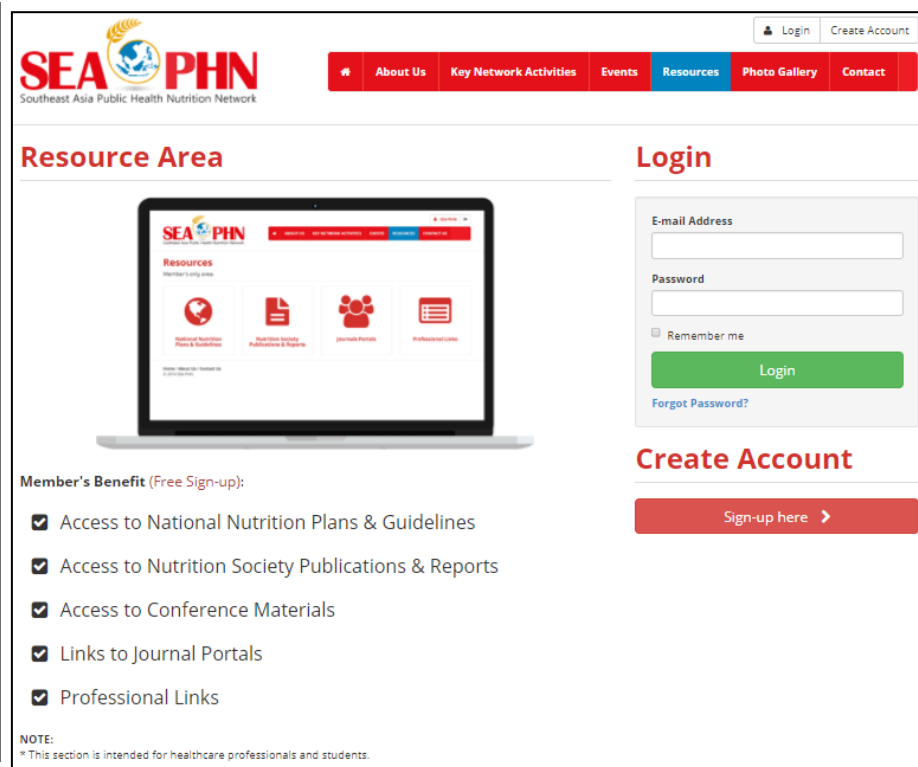
Key Activities - 2

Dedicated website: <https://sea-phn.org/>

Serves as a platform of interaction, sharing of activities by Network members and serving as a repository of public health nutrition documents



The screenshot shows the SEA PHN website homepage. At the top is the SEA PHN logo and a navigation bar with links: About Us, Key Network Activities, Events, Resources, Photo Gallery, and Contact. Below the navigation bar is a large banner for the "1st Southeast Asia Public Health Nutrition Conference". The banner includes the text "Together In Advancing Public Health Nutrition" and "Conference successfully concluded! Thank you for your participation & support!". Below the banner are logos of organizing and supporting organizations. At the bottom, there are three sections: "What do we do?" (We conduct regular interactions to enable closer sharing of experiences and activities. See our key network activities >), "Who are our members?" (We are a network of nutrition societies, government agencies and private companies in Southeast Asia. Get to know our members >), and "Current events" (Network members conduct regular scientific meetings and nutrition programmes. Find events near you >).

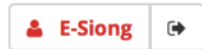


The screenshot shows the SEA PHN website "Resource Area". It features a laptop displaying the website's resources section. To the right of the laptop is a "Login" form with fields for E-mail Address and Password, a "Remember me" checkbox, and a "Login" button. Below the login form is a "Create Account" section with a "Sign-up here >" button. Below the laptop, there is a "Member's Benefit (Free Sign-up):" section with a list of benefits: Access to National Nutrition Plans & Guidelines, Access to Nutrition Society Publications & Reports, Access to Conference Materials, Links to Journal Portals, and Professional Links. At the bottom, there is a "NOTE:" section stating: "This section is intended for healthcare professionals and students."

Key Activities - 2

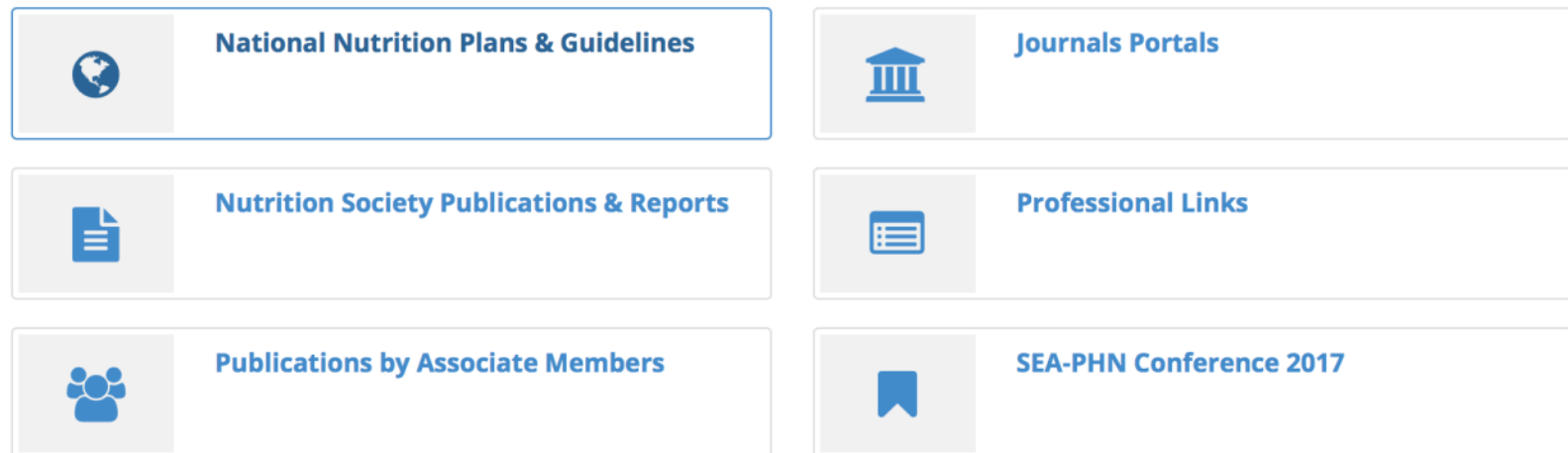
Dedicated website: <https://sea-phn.org/>

Serves as a repository of public health nutrition documents in the region



Resources

Our downloads and links section.

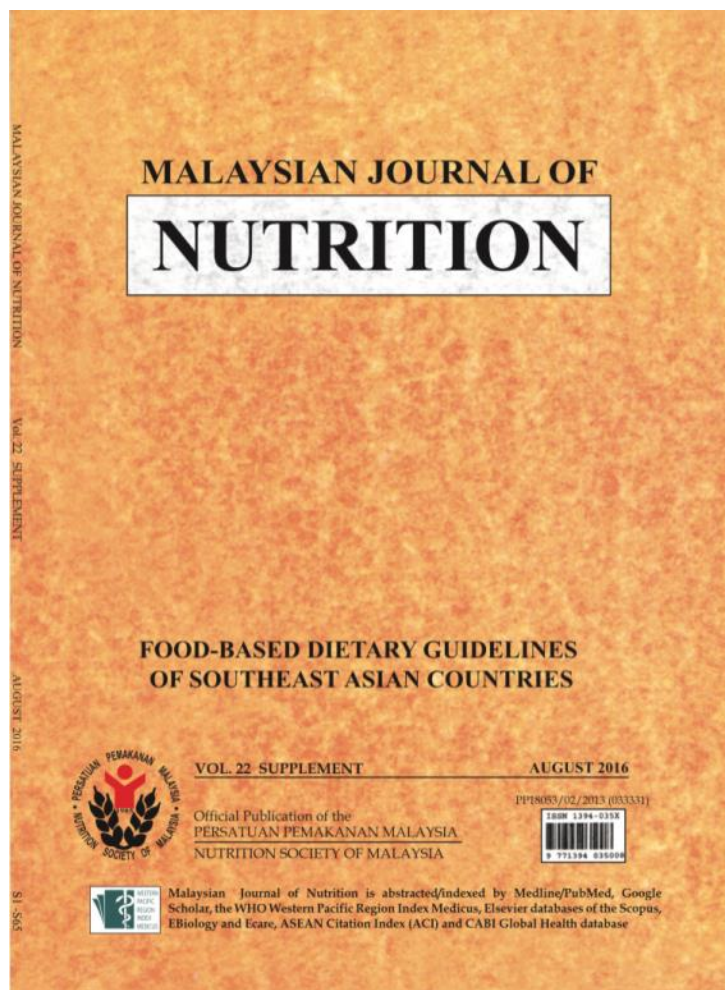


Key Activities - 3

Compilation and analysis of 6 FBGDs in SEA

Two articles derived from the FBGDs compilation project were **published in the supplement of Malaysian Journal of Nutrition Vol. 22.**

- 1st article compared the key messages of the FBGDs of 6 SEA countries
- 2nd article compared the pictorial guide that accompanies the FBGDs.
- Download free from:
http://www.nutriweb.org.my/publications/mjn0022_supplement/default.php



Key Activities - 4



1st Southeast Asia Public Health Nutrition Conference

In conjunction with Nutrition Society of
Malaysia 32nd Annual Scientific Conference

"Together In Advancing Public Health Nutrition"

14 – 17 May, 2017 • Hotel Istana, Kuala Lumpur, Malaysia

Under the auspices of:



Organised by:



Supported by:



1st SEA-PHN Conference

Brought together diverse stakeholders to **share and discuss** the latest scientific knowledge, effective intervention policies, strategies, research programmes and regulatory updates to **promote and sustain public health nutrition** in the region.



Conference Scientific Programme

- 1 Keynote Address
- 5 Plenary Lectures
- 3 Roundtable Discussions
- 11 Main Symposia
- 8 Sponsored Lunch Symposia
- 24 free paper presentations
- 200 posters presented
- Young Researchers' Awards
 - Oral and poster categories

1st SEA-PHN Conference

The conference had 477 attendees (from 23 countries) & 54 speakers from 17 countries.



Key Activities - 5

A Nutrition Education Module for School Children in Southeast Asia



A multi-country school nutrition initiative in SEA

Rationale of GNKHC Programme (1)

- **Malnutrition** is a **serious public health problem** in SEA countries, including **among children**
- The double burden of malnutrition:
 - Undernutrition (eg stunting and underweight; anaemia)
 - Overnutrition (eg overweight and obesity)
- There are many **negative effects associated with undernutrition**, particularly for school students, i.e. not be able to achieve optimum growth.
- **Overweight and obesity** are the factors leading to nutrition-related **non-communicable diseases** (NCDs) such as heart disease, diabetes and cancer in the future.
- Malnutrition will affect the students' ability to learn and subsequently **affect their academic performance**.
- Thus, it is imperative to take **prevention measures starting from a young age**, i.e. to **provide nutrition education to school children**

Rationale of GNKHC Programme (2)

- Implementation of the nutrition education module previously (by various parties including NSM) has been **proven to be effective** in improving the nutritional knowledge of students.
- School settings recognized as **appropriate for nutrition intervention** by various research groups and authorities:
 - To decrease the prevalence of overweight and obesity
 - important strategy in the reduction of risks to nutrition-related diseases later in adulthood
- The SEA-PHN Network is conducting a **multi-country nutrition education initiative, namely GNKHC** to empower students with knowledge about healthy eating and an active lifestyle.
 - To ensure that the growth and development, as well as the learning potential of the students are achieved



SEA-PHN Network decided to implement a multi-country nutrition education programme (GNKHC) for **school-going children, conducted by teachers**, utilising a specially designed **nutrition teaching module** developed by members of the SEA-PHN Network.

- Contribution of the Network to the promotion of knowledge of healthy eating and active living in SEA
- Increased awareness of parents on the importance of healthy eating and active living among school children
- Provide a platform for professional bodies and corporate partners in the region to collaborate in a public health nutrition programme
- Experiences gained in the implementation of the project can be used for implementing larger scale interventions in more schools in the countries

Partners of GNKHC programme

All 5 member countries of the Network are participating in this initiative, namely nutrition societies/associations of Indonesia, Malaysia, Philippines, Thailand & Vietnam



Funding for the project is from the SEA-PHN Network,
provided by Associate Members of the Network



Goal of GNKHC

To empower school children with appropriate nutrition knowledge to enable them to adopt healthier eating habits and be physically active.

Objectives of GNKHC

1. To improve **children's knowledge, attitude & practice** (KAP) on diet & physical activity.
2. To **increase awareness of parents** on the importance of healthy eating and active living among school children.
3. To **emphasise to health and education authorities** the importance of improving nutrition knowledge of school children.
4. To encourage schools and national nutrition societies **to utilise the SEA-PHN Network nutrition module** for future promotion to other school children.

SEA-PHN Network nutrition module

- **Jointly developed by members of the SEA-PHN Network**
- **Comprises 9 topics – basic healthy eating and active living**

Topic 1 The Healthy Way of Eating: From Pyramid to Plate

Topic 2 Be Active, Be Healthy

Topic 3 Cereals, Cereal Products & Tubers for Energy

Topic 4 Veggies & Fruits for Health

Topic 5 Protein Foods Make You Grow Stronger

Topic 6 Limit Fats, Sugar & Salt for Health

Topic 7 Choose Safe and Healthy Foods especially when Eating Out

Topic 8 Use Food Labels for Healthier Food Choices

Topic 9 Review: Eat Smart and Be Active

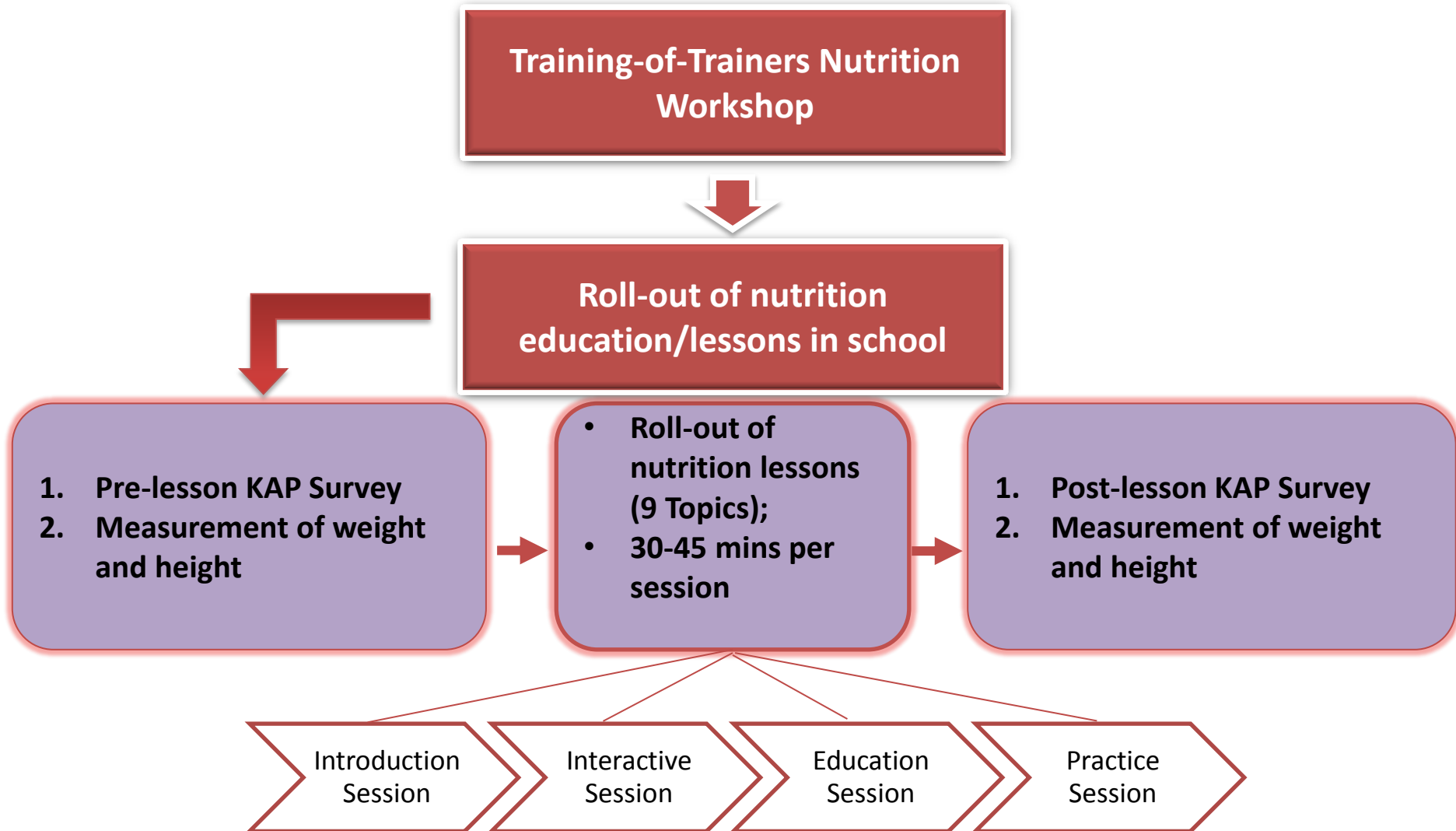
SEA-PHN Network nutrition module

- Module comprises:
 1. Powerpoint teaching slides
 2. Teacher's guidebook
 3. Aids for Interactive Activities
 4. Student's workbook
 5. Leaflets for parents
 6. Feedback forms

SEA-PHN Network nutrition module

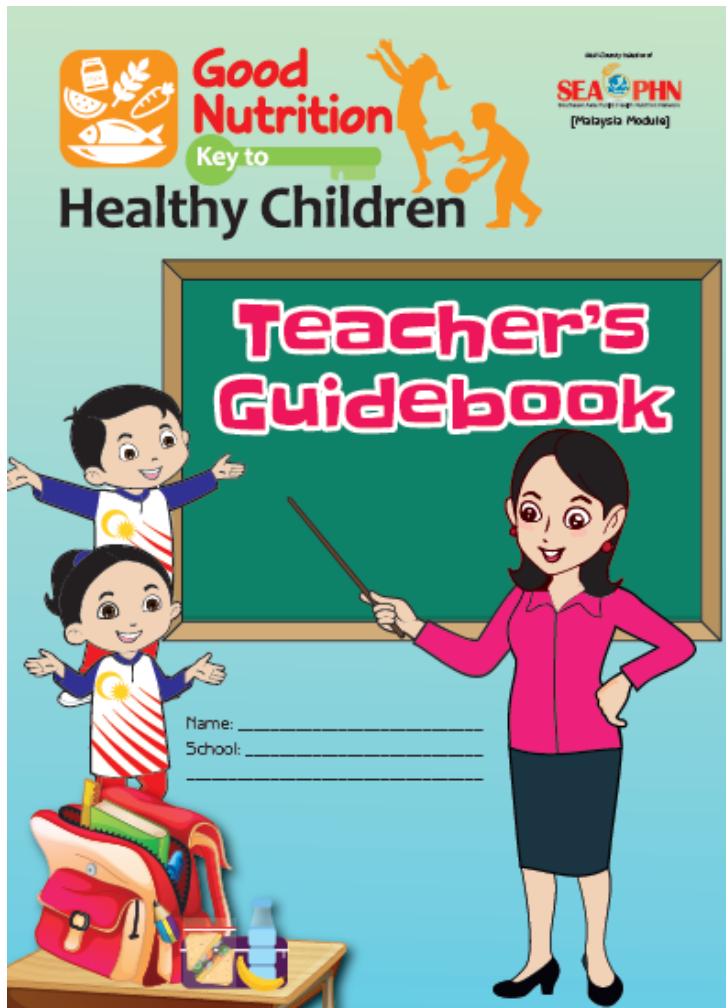
- All countries will utilize the same nutrition module jointly developed by the nutrition societies
- However, the content will be translated into the appropriate national languages and customized to meet local social and cultural practices
- They will also use the the same teaching aids, monitoring tools and follow the same implementation process.
- To be implemented by teachers, trained in the use of the module
- Oversee by Technical Working Group established by national nutrition society

Implementation of GNKHC



For the Teacher:

1. Teacher's Guidebook



- There are **9 topics** in teacher's guidebook.
- Teaching materials for each topic use specific color theme.

Content		Page no.
TOPIC 1: The Healthy Way of Eating: From Pyramid to Plate		
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)		5 - 7
Teaching Slides with Notes		8 - 14
Answer Scheme to the Student Exercise		15
TOPIC 2: Be Active, Be Healthy		
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)		16 - 17
Teaching Slides with Notes		18 - 22
Answer Scheme to the Student Exercise		23
TOPIC 3: Cereals, Cereal Products & Tolerate for Energy		
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)		24 - 26
Teaching Slides with Notes		27 - 30
Answer Scheme to the Student Exercise		31
TOPIC 4: Vegetables & Fruits for Health		
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)		32 - 34
Teaching Slides with Notes		35 - 39
Answer Scheme to the Student Exercise		39
TOPIC 5: Protein Foods Make You Grow Stronger		
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)		40 - 42
Teaching Slides with Notes		43 - 46
Answer Scheme to the Student Exercise		47
TOPIC 6: Limit Fats, Sugar & Salt for Health		
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)		48 - 50
Teaching Slides with Notes		51 - 54
Answer Scheme to the Student Exercise		55

TOPIC 7: Choose Safe and Healthy Foods especially when Eating Out	
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)	56 - 58
Teaching Slides with Notes	59 - 62
Answer Scheme to the Student Exercise	63
TOPIC 8: Use Food Labels for Healthier Food Choices	
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)	64 - 66
Teaching Slides with Notes	67 - 70
Answer Scheme to the Student Exercise	71
TOPIC 9: Review: Eat Smart and Be Active	
Teaching Guidelines (Objectives, Preparations, Activity Flow, Evaluation)	72 - 76
Teaching Slides with Notes	77 - 88
Teacher's Feedback Form	
TOPIC 1: The healthy way of eating: from Pyramid to Plate	90
TOPIC 2: Be Active, Be Healthy	91
TOPIC 3: Cereals, Cereal Products & Tolerate for Energy	92
TOPIC 4: Vegetables & Fruits for Health	93
TOPIC 5: Protein Foods Make you Grow Stronger	94
TOPIC 6: Limit Fats, Sugar & Salt for Health	95
TOPIC 7: Choose Safe and Healthy Foods especially when Eating Out	96
TOPIC 8: Use Food Labels for Healthier Food Choices	97
TOPIC 9: Review: Eat Smart and Be Active	98

Content in Teacher's Guidebook

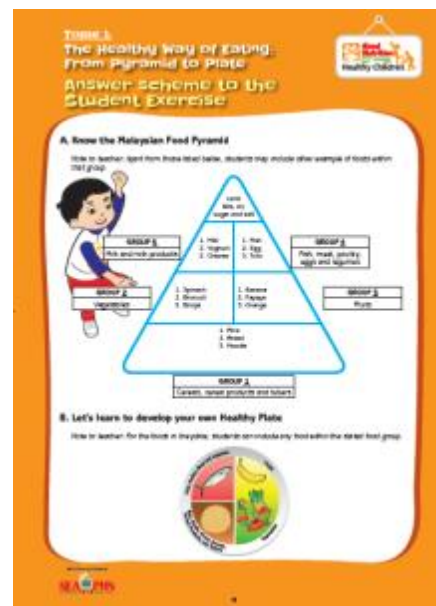
Each topic consists of:



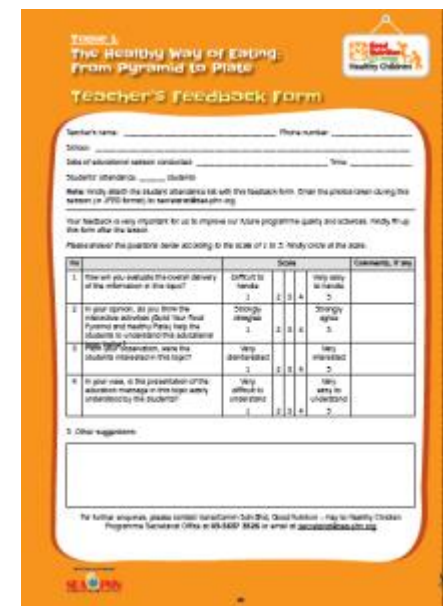
Objectives, Preparations,
Activities Flow, Evaluation



Teaching Slides with Notes



Answer Scheme



Feedback Form

For the Teacher:

2. Interactive Activities Material

There are interactive activities for each topic.

Topic 1: The Healthy Way of Eating: From Pyramid to Plate

Activity 1: Build Your Food Pyramid



Folding Card



Game Cards (31 pieces)

Activity 2: Healthy Plate



Topic 2: Be Active, Be Healthy

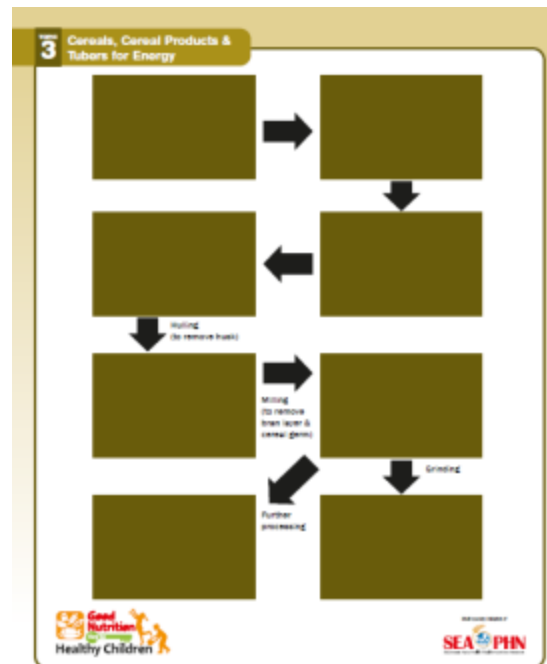
Circuit-Training Activity



Jumping rope (3)

Topic 3: Cereals, Cereal Products & Tubers for Energy

Activity: From Farm to Table



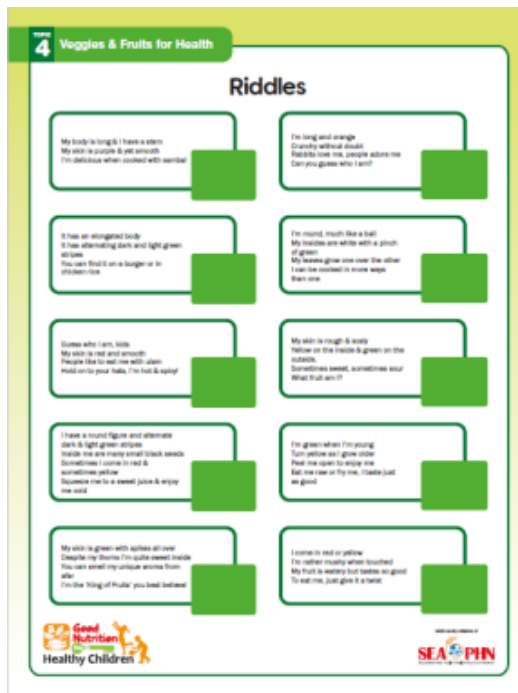
Folding Card



Game Cards (8 pieces)

Topic 4: Veggies & Fruits for Health

Activity: Veggies & Fruits Riddles



Folding Card



Game Cards (8 pieces)

Topic 5: Protein Foods Make You Grow Stronger

Activity: Food Bingo



Game Cards (5 pieces)

Topic 6: Limit Fats, Sugar & Salt for Health

Activity: Food Investigator Game



Game Cards (17 pieces)

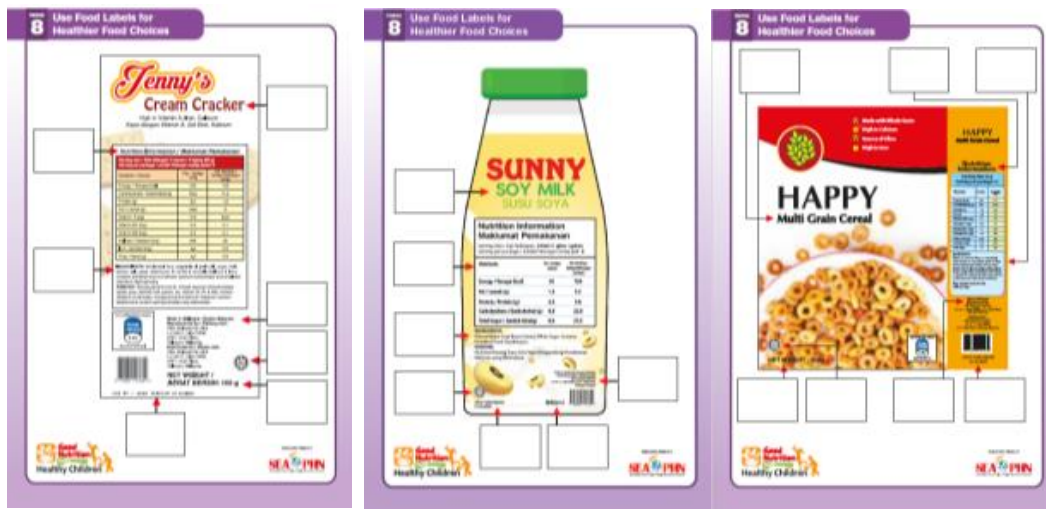
Topic 7: Choose Safe and Healthy Foods especially when Eating Out

Activity: My Smart Menu Choices



Topic 8: Use Food Labels for Healthier Food Choices

Activity: Detective of Food Packaging Label



Folding Card



Game Cards (7 pieces)

Topic 9: Review: Eat Smart and Be Active



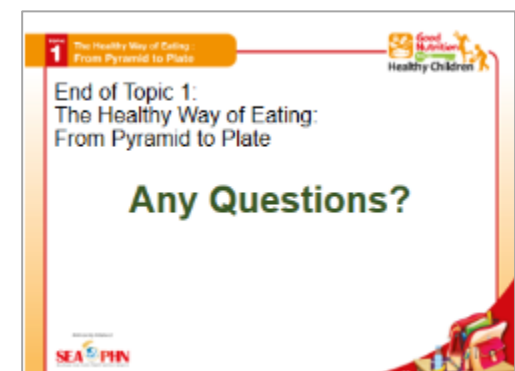
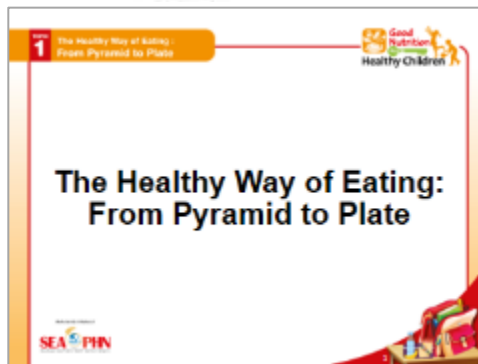
Game Cards (2 pieces)

For the Teacher:

3. Teaching Slides



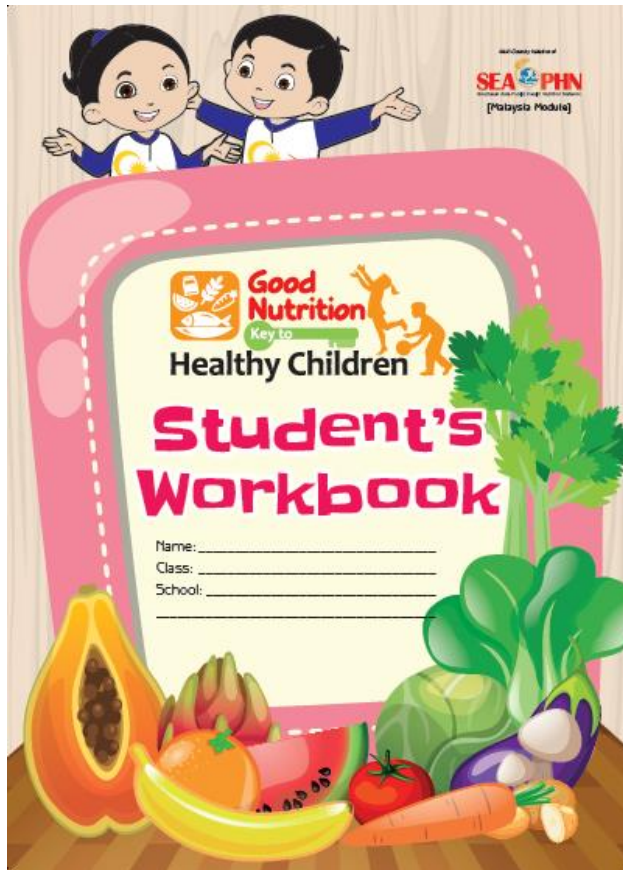
PowerPoint file for teaching slides of 9 topics will be saved in CD.



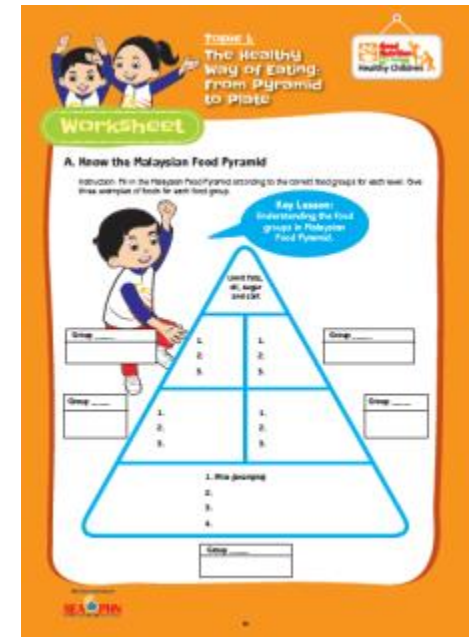
For the Student:

4. Student's Workbook

- There are 1-2 worksheets to be completed after the lesson for each topic.
- Each workbook consists of:



Learning Slides



Worksheet

5. Leaflets for parents

- 8 GNKHC nutrition leaflets will be provided to parents so that they will understand what their children have learned in school.
- Teacher will distribute the leaflets for students after each lesson.



Country customisation of SEA-PHN Network nutrition module

The English module lessons (master version) have been customised according to the country's local language and culture (translation of lessons, amend types of food, etc)



Monitoring & Evaluation Activities

- 1. Pre- & Post- lesson KAP Survey**
- 2. Module Feedback Forms**

Monitoring & Evaluation Activities

K.A.P Survey

- Pre-lesson and post-lesson KAP survey have the same set of questions.
- It consists of 3 parts:
 - Part A – Knowledge;
 - Part B – Attitude;
 - Part C – Practice
- Part A consists of 8 topics and each topic has 3 multiple choice questions.
- Part B and C consists of 10 multiple choice questions respectively.



Multi-country Initiative of
SEA PHN
Southeast Asia Public Health Nutrition Network

Knowledge, Attitude and Practice (KAP) Survey Form
Pre-lesson

To be completed by the teacher

Date: _____

i. Details of student

Name : _____
Class : _____
Date of Birth : e.g. 2 | 5 - 1 | 1 - 2 | 0 | 0 | 8
Gender : ☐ Female ☐ Male
Ethnicity : ☐ Malay ☐ Chinese ☐ Indian ☐ Others

ii. Weight and height measurement

Height : _____ m (Note: 1m= 100cm)
Weight : _____ kg

For secretariat use only

BMI : _____ kg/m²
BMI Status : ☐ Underweight ☐ Normal ☐ Overweight ☐ Obese

Kindly refer to the growth chart and tick accordingly

FEEDBACK FORMS

There are 2 types of feedback forms :

- i) Module Feedback Form
- ii) Programme Feedback Form

**Topic 1:
The Healthy Way of Eating:
From Pyramid to Plate**

Teacher's Feedback Form

Teacher's name: _____ Phone number: _____
 School: _____
 Date of educational session conducted: _____ Time: _____
 Students' attendance: _____ students

Note: Kindly attach the student attendance list with this feedback form. Email the photos taken during this session (in JPEG format) to seccat@sea-phn.org.

Your feedback is very important for us to improve our future programme quality and activities. Kindly fill up the form after the lesson.

Please answer the questions below according to the scale of 1 to 5. Kindly circle at the scale.

No	Scale	Comments, if any
1. How will you evaluate the overall delivery of the information in this topic?	Difficult to handle 1 2 3 4 5 Very easy to handle	
2. In your opinion, do you think the interactive activities (Build Your Food Pyramid and Healthy Plate) help the students to understand the educational topic better?	Strongly disagree 1 2 3 4 5 Strongly agree	
3. From your observation, were the students interested in this topic?	Very disinterested 1 2 3 4 5 Very interested	
4. In your view, is the presentation of the education message in this topic easily understood by the students?	Very difficult to understand 1 2 3 4 5 Very easy to understand	

5. Other suggestions:

For further enquiries, please contact VersaCom 5th Blvd, Good Nutrition - Key to Healthy Children Programme Secretariat Office at **05-5837 3528** or email at seccat@sea-phn.org

SEA-PHN

Module Feedback Form

Multi-country Initiative of

Good Nutrition Healthy Children

SEA-PHN
Southeast Asia Public Health Nutrition Network

TEACHER'S FEEDBACK FORM

Instruction: Teacher is to fill up this feedback form after completing all the lessons.

Teacher's Name	
School Name	
Phone Number	

Programme Feedback Form:

- a. Teacher's Programme Feedback Form
- b. Student's Programme Feedback Form
- c. Parent's Programme Feedback Form

Monitoring & Evaluation Activities

Field Visit by Representatives

- Representatives from the country nutrition society will visit and monitor the lessons being conducted by teachers from time to time.
- They will also report their observations on the conditions of the school cafeteria.



Current status

- As of middle of June 2018, all the required nutrition education module and teaching aids have been developed and translated and customized for local use.
- Malaysia and Philippines have completed their training-the-trainer workshops
- Pre-lesson survey and baseline BMI measurements soon; teaching of the first lesson of the module will follow



Training-of-Trainers (TOT) Nutrition Workshop

Teachers from SK Padang Jawa and SK Puchong



Nutrition Module Briefing



Group Photo



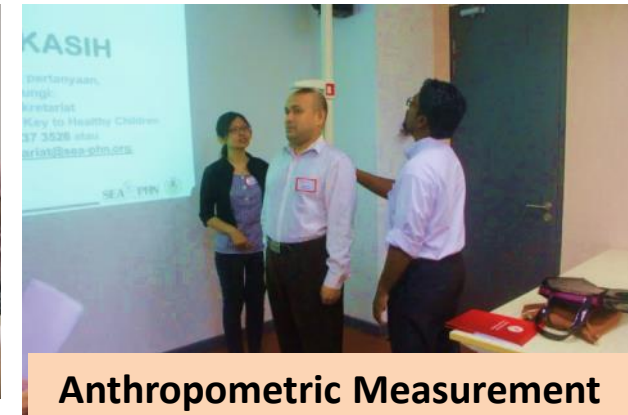
Interactive Session



Interactive Session



Q&A Session



Anthropometric Measurement

Conducted on 30 & 31 May 2018
Selangor State Library



Roll-out in Malaysia: June – September 2018

SK Padang Jawa & SK Puchong



Measuring height



Measuring weight



Pre-lesson KAP Survey



Training-of-Trainers (TOT) Nutrition Workshop



Introduction and brief overview of the GNKHC Project



Group Photo



Brief overview of Joy School Programme



Discussion on the module



Teachers' Kit



Parents' Leaflet and Teacher's Guidebook

Conducted on 5 & 6 July 2018
PBSP Conference Room, Intramuros, Manila

Concluding remarks

- **Double burden of malnutrition must be addressed from a young age**
 - Underweight, stunting & micronutrient deficiencies
 - Overweight and obesity
- **Empowering school children with knowledge on health eating and active living** is the key to ensuring healthier future adult population.
- It is hoped that **experience gained** in the implementation of GNKHC can be used for **implementing larger scale interventions in more schools** in the countries.

End & Thank You

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Email: secretariat@sea-phn.org
president@nutriweb.org.my