



Ministry of Health Malaysia



Ministry of Education Malaysia

# Malaysia School Nutrition Promotion Programme (MySNPP) improved food environment & body weight status of primary school children

Choon-Huey Teo<sup>1</sup>, E-Siong Tee<sup>1</sup>, Yit-Siew Chin<sup>1,2</sup>, Hwee-Teng Goh<sup>3</sup>,  
Shi-Jia Koo<sup>3</sup>, Shirley Ng<sup>3</sup>

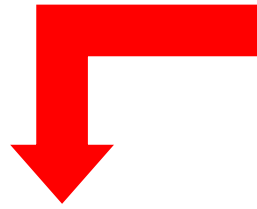
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## Why is nutrition important for learners' health and well-being?

Access to healthy, safe, and nutritious food is essential for child and adolescent growth, neurocognitive development, disease prevention and lifelong health. Access to healthy food is a fundamental human right, a Sustainable Development Goal, and a key determinant of socio-emotional well-being. In contrast, poor diets are the main risk factor for the global burden of disease and contribute to a triple burden of malnutrition - underweight, micronutrient deficiencies and overweight - that threatens children's growth and development.



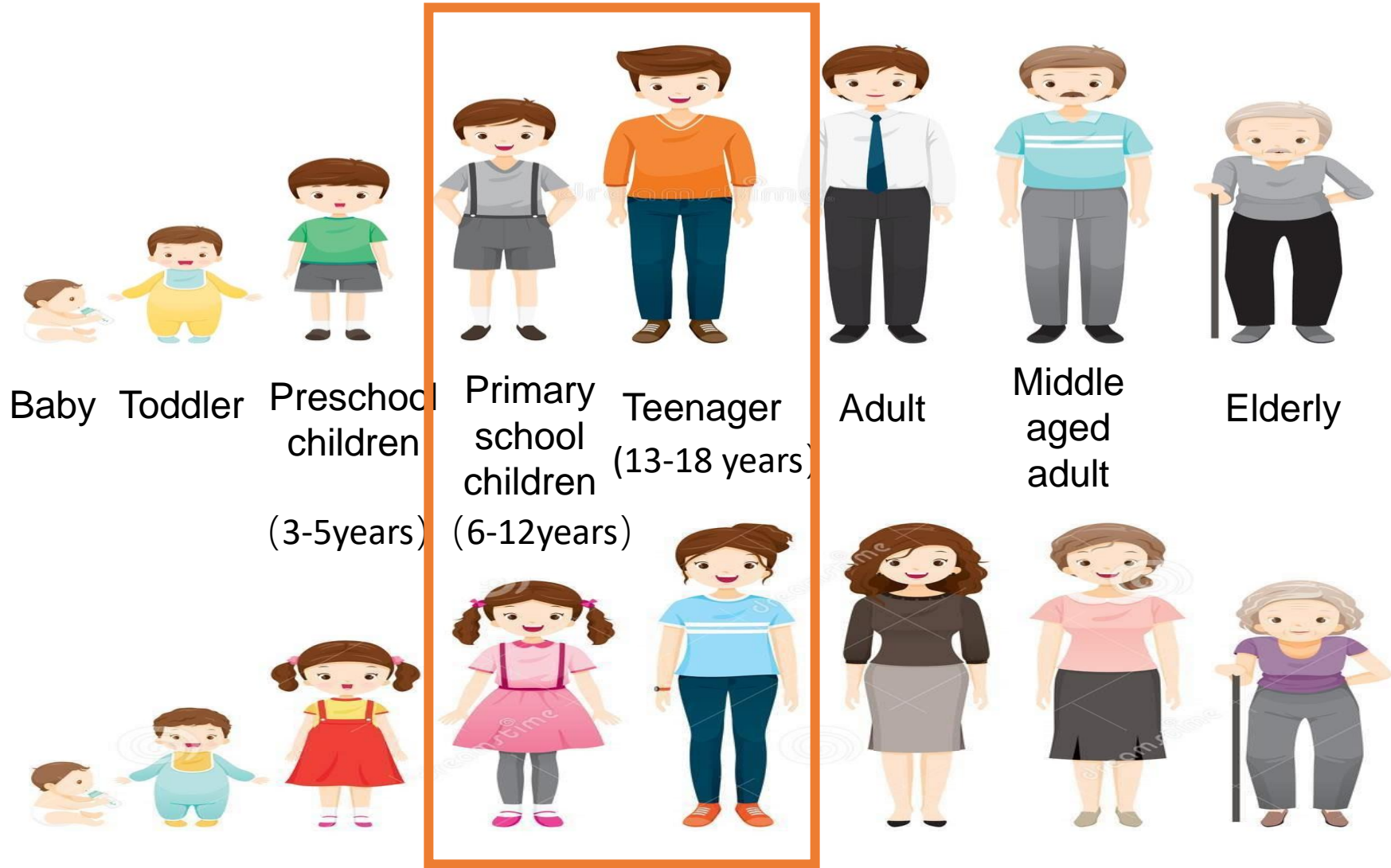
**Poor diets** are the main risk factor for the global burden of disease and contribute to triple burden of malnutrition (underweight, micronutrient deficiency and overweight), which threatens children's growth & development.

# “Children are the leaders of tomorrow”

(Suntwist, 2021).

- Ensure proper nutrition is a critical component of public health that guarantees the stability of the future generation.
- Proper nutrition plays a vital role in their physical, cognitive, and emotional development.
- Well nourished children can focus better & learn more in the classroom, leading to better performance.

## Throughout the life cycle



## Why are schools ideally placed to improve nutrition and healthy diets?

Children and adolescents spent much of their time at school, presenting an important opportunity to deliver specific food and nutrition programmes (e.g., school meals, micronutrient supplementation, deworming). It also presents an opportunity to develop children's health and food literacy, embed life-long healthy eating habits and foster understanding of sustainable food systems to address all forms of nutrition. Whole-school approaches to food and nutrition increase knowledge about nutrition and promote healthy lifestyles, including increasing intake of water and nutritious foods, such as fruits, vegetables and healthy snacks.

Schools and school communities have an important role to play in promoting sustainable diets, including by encouraging the consumption of locally grown traditional foods, with the added benefit of boosting local economies. A well-nourished, healthy, educated population is the basic prerequisite for growth and economic development. Thus, investment in a whole-school approach to nutrition serves to improve education, health and well-being for learners and also improves the economic outlook of individuals, communities and countries.

**Over 90% of children** in the primary school age are enrolled in school, where they spend one-third of their time.

**Schools** provide a unique setting for preventive intervention, and school years an important period to establish healthy behaviours such as balanced nutrition and physical fitness that will contribute to lifetime of health and well-being.

In 2023, WHO and UNESCO have launched a new initiative **“Making Every School a Health Promoting School”**.



# Highlights

Schools are crucial for promoting healthy diets and nutrition. The school nutrition environment encompasses opportunities to ensure students receive nutritious foods and accurate messages about good nutrition, supported by relevant services and education on healthy practices.

## Domain 1 Nutritious foods in schools



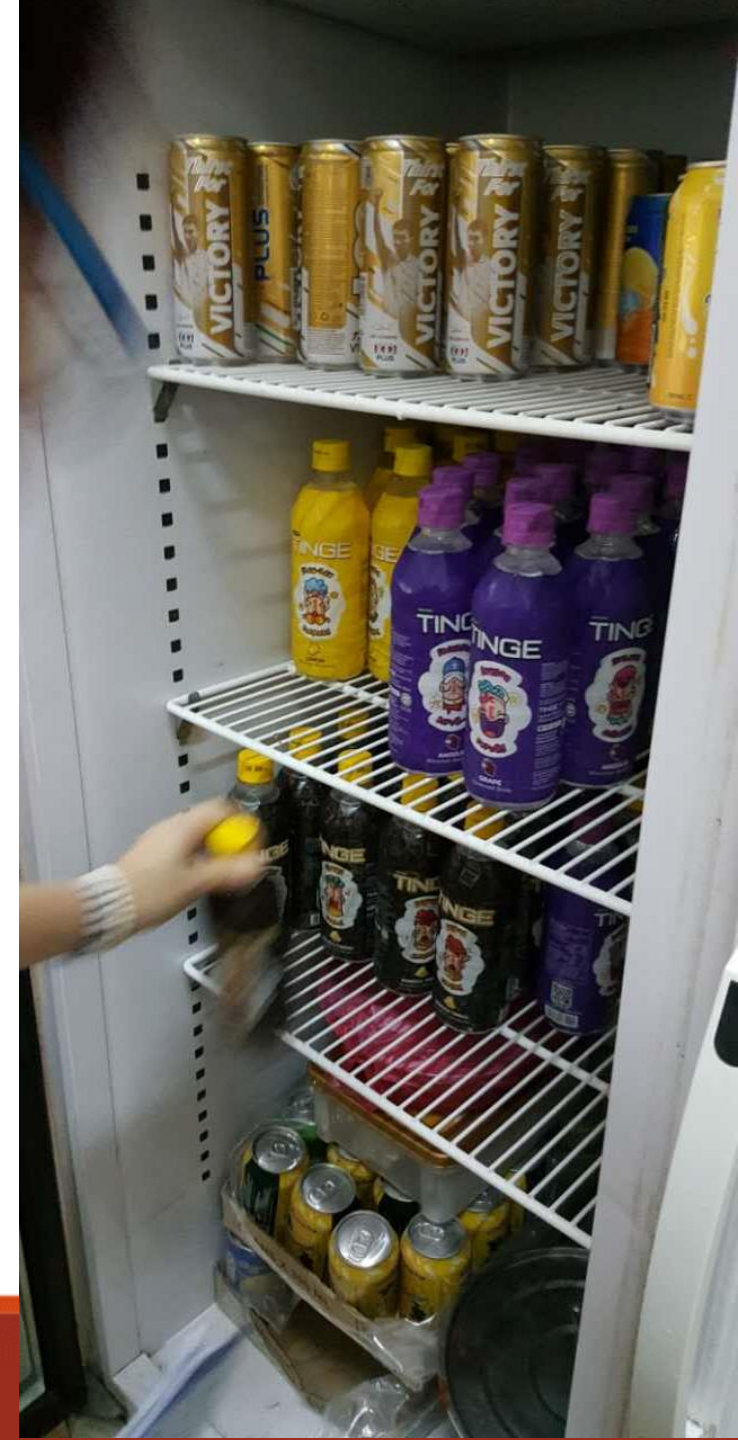
## Domain 2 Healthy school food and physical activity environments



# Need to create Healthy School Food Environment in Malaysia?



# Need to create Healthy School Food Environment in Malaysia?





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# Malaysia School Nutrition Promotion Programme (MySNPP)

## Healthy School Food Environment



## School Meal Programme (SMP)

### Transform the school canteen to School Meal Programme

- Trained canteen staff prepared healthy menus during recess for the children.
- Served only **ONE MENU** in a day, with a different menu each day of the month.
- Different type of vegetables & fruits every day in a week.



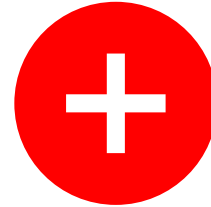
# Malaysia School Nutrition Promotion Programme (MySNPP)

## Healthy School Food Environment



### School Meal Programme (SMP)

- The students' participation is voluntary;
- Parents are required to pay RM3.00 – RM3.50 (~USD 0.50) for each of the school meal provided;
- The participant rate have fluctuated;
- Lack of nutrition awareness and knowledge, impacted the sustained engagement in the SMP.



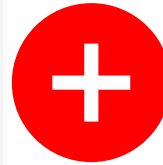
# Malaysia School Nutrition Promotion Programme (MySNPP)

## Nutrition Education



## Little Nutrition Camp

- **Nutrition education** to enhanced nutrition knowledge among parents and children;
- GNKHC modules was developed by SEA-PHN Network.
- Children can apply their knowledge that they gained from the camp and make heathier foods choices in school canteen.




## Healthy School Food Environment



## School Meal Programme (SMP)

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Malaysia School Nutrition  
Promotion Program (MySNPP)  
{ Little Nutritionist Camp }

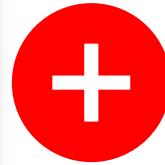
马来西亚校园营养课程之  
《我是小小营养师》生活营

# Malaysia School Nutrition Promotion Programme (MySNPP)

## Nutrition Education



## Little Nutrition Camp



## Healthy School Food Environment



## School Meal Programme (SMP)

A combination of both activities through MySNPP is a more holistic approach in improving the nutrient intake and nutrition knowledge of school children

- Will greatly enhance participation by parents & children

# Malaysia School Nutrition Promotion Programme (MySNPP)

## - Findings

13 sessions of MySNPP: 3 Online; 10 On-ground  
(31-5-2021 – 11-12-2023)



16 schools  
from 3 districts



1283 primary school children  
(Online: 364 (28%);  
On-ground: 1479 (72%))



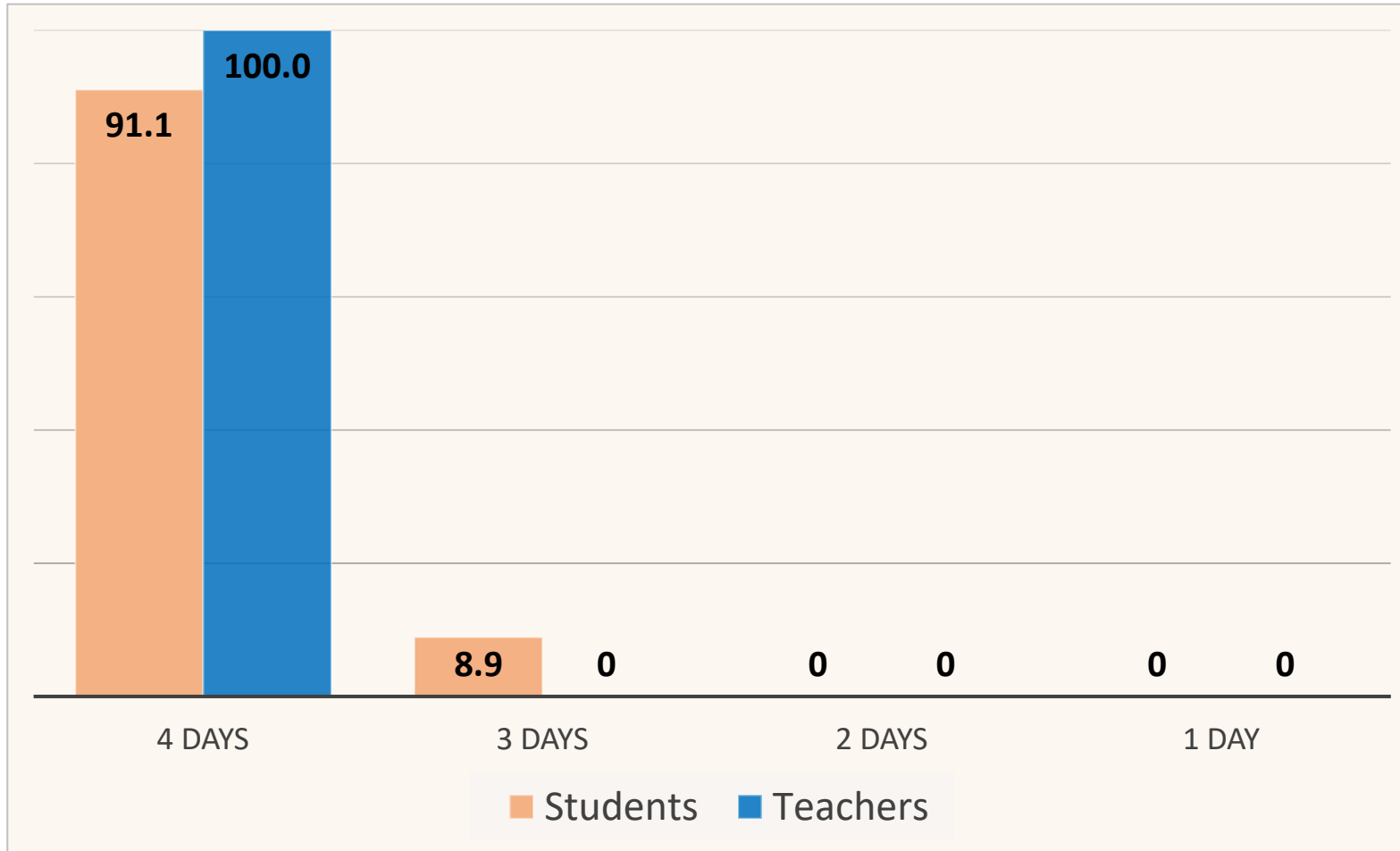
140 teachers



1240 parents

# Malaysia School Nutrition Promotion Programme (MySNPP)

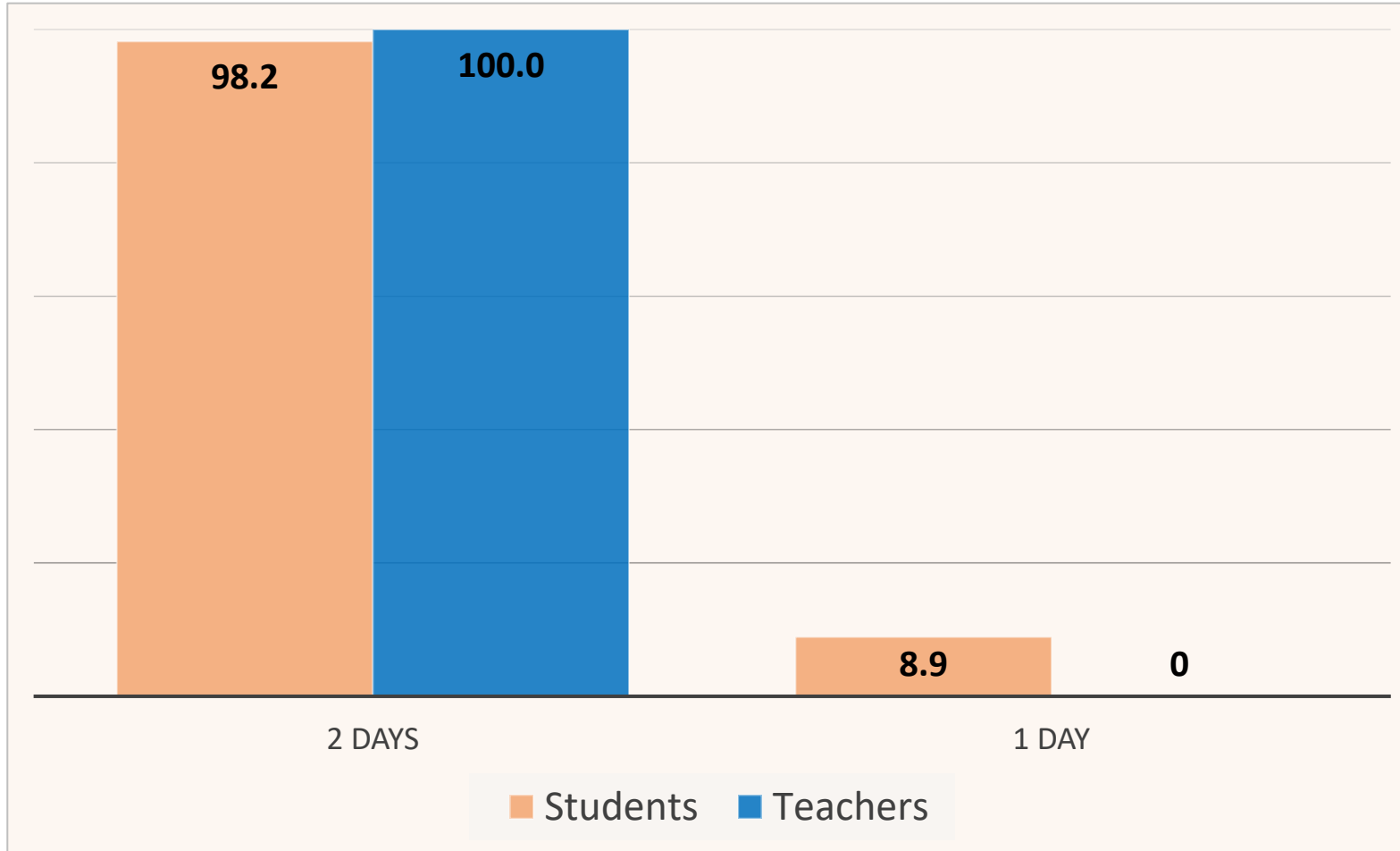
- Attendance rate: 4-days Little Nutritionist Camps (2021 & 2022)





# Malaysia School Nutrition Programme (MySNPP)

- Attendance rate: 2-days Little Nutritionist Camps (2023)



# Malaysia School Nutrition Promotion Programme (MySNPP)

## - Written feedback by teachers

- Teachers reported that they strongly agreed (100.0%) the module was **easily understood and interesting**.
- All teachers rated the programme as **satisfactory** (100.0%).



(Translated)

4. Please provide your feedback on the programme:

Nutritionist explained patiently to the students, to make sure they understand.

Very meaningful programme, teachers and students learned on healthy eating, build lifelong habits.

I am pleased to learn nutrition information from nutritionist.

Simple, clear message and fun.

This is a very meaningful activity that allows me to understand the types and nutritional value of food, and to ensure a balanced diet to maintain good health.

Through the information shared by nutritionist, we can understand the balanced diet and maintain child grow and health.

I learned through the online nutrition education.

A good programme can be organized to all students to develop the good eating habit.

4. 请写出你对《我是小小营养师》线上营养课程的看法:

上课时学生有不明白的地方, 营养师都会好好的解释, 一一的告诉学生直到他们明白

非常有意义的课程, 让学生和老师了解更营养的食物, 受益一生

我很开心可以跟营养师学很多知识

简单, 清楚, 有趣味

这项非常有意义的活动让我了解食物的种类及营养价值, 并时时确保饮食的均衡以保持身体健康。

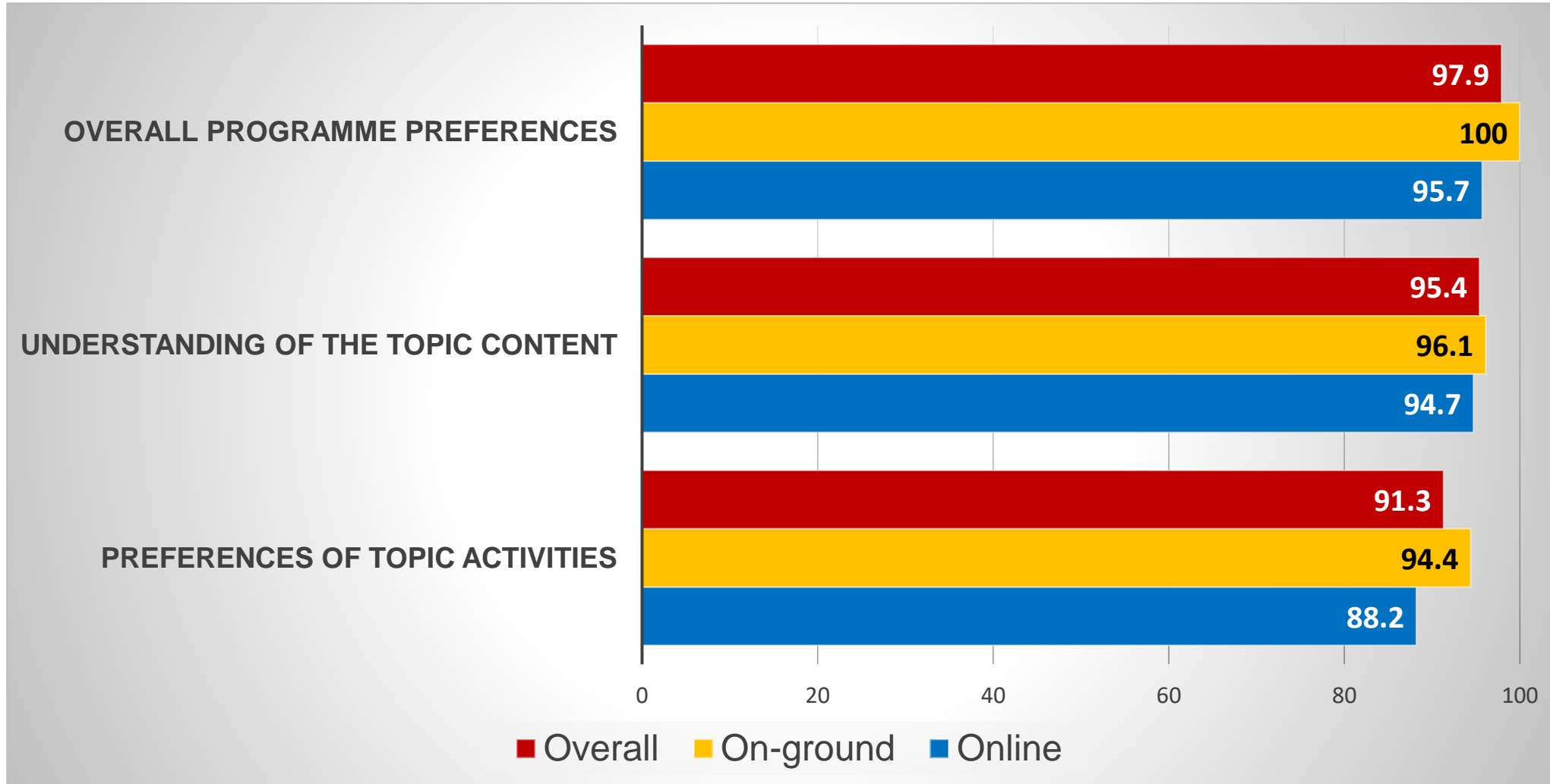
通过营养师说明, 了解营养平衡饮食可以让保持健康身体, 帮助孩子们成长。

我在线上营养课程中学到很多对我们身体有帮助的食物, 也知道了许多食物的好处及坏处。

这样好的活动希望可以办给全校学生, 让更多学生受益

# Malaysia School Nutrition Promotion Programme (MySNPP)

## - Programme feedback by students

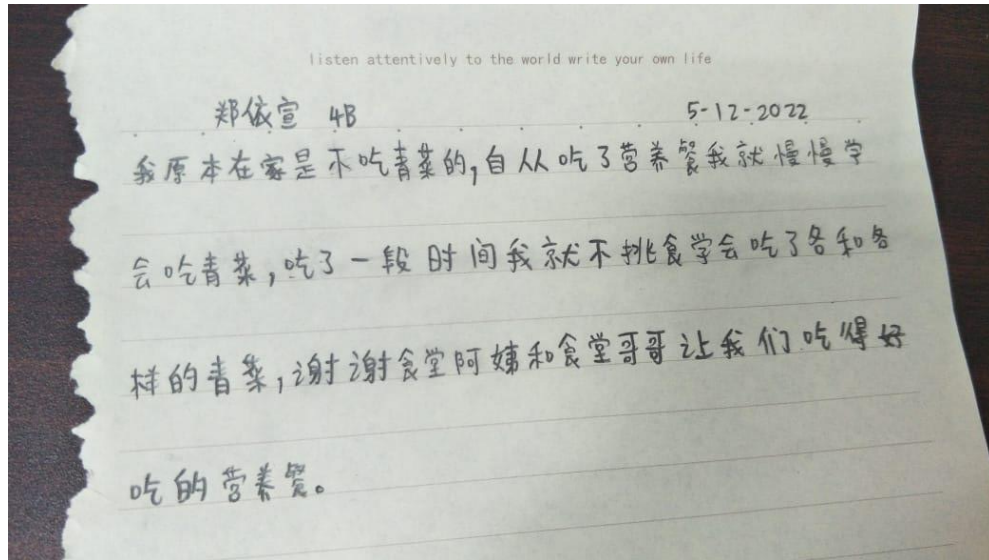


# Malaysia School Nutrition Promotion Programme (MySNPP)

## - Written feedback by students



Willingness to try new foods, i.e. green vegetables



“Previously, I don’t eat green vegetable, till I started nutritious meal, I learned to **eat green vegetables**, after eating for sometimes, I am **no longer picky**, learned to **eat various types of vegetables**, thank you to canteen caterers and nutritionist for preparing the delicious nutritious meals for”

Forwarded

学生:

1. 会注重食物的营养, 烹饪方法。如太油的食物不爱吃。
2. 会继续吃营养餐
3. 会与同学分享食物营养的重要性
4. 会提醒带或吃不健康食物的同学, 将面对的问题
5. 会更爱吃蔬菜

10:37 pm

“Students:

1. *Emphasize on the importance of nutrition, cooking methods. If too oily foods don’t like to eat*
2. *Continue to eat school meals*
3. *Share with peers on the importance of nutrition*
4. *Reminds students who brought or ate unhealthy foods on the implications that may face*
5. **Love to eat vegetables”**

# Malaysia School Nutrition Promotion Programme (MySNPP)

## - Programme feedback by parents

A total of **13 Parental Nutrition Education Talk Sessions**  
(3 Online; 10 On-ground) attended by **1240 parents**



- **Parents participated actively in Question & Answer session:**
  - type of breakfast for their children;
  - foods to improve their children immunity during COVID-19 pandemic;
  - healthy cooking methods, appropriateness to use air-fryer.
- **Positive feedback on the programme:**
  - children request breakfast before 8am;
  - ask for fruits more frequently;
  - prefer a variety of vegetables everyday.



## Article

# Impacts of a School-Based Intervention That Incorporates Nutrition Education and a Supportive Healthy School Canteen Environment among Primary School Children in Malaysia

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**Abstract:** In this study, a school nutrition program (SNP) that incorporates nutrition education and a healthy school canteen environment was developed to improve nutrition knowledge among intervention respondents and provide a healthier environment for them to practice healthy eating. In the current study, we evaluated the impacts of the SNP on eating behaviors, physical activity, body mass index-for-age (BAZ), and cognitive performance at pre-intervention, post-intervention, and 3-month follow-up points between intervention and comparison groups. This intervention study involved 523 primary school children (7–11 years old) from six selected schools in Batu Pahat District, Malaysia. Each respondent completed anthropometric and cognitive performance assessments and a set of standardized questionnaire at pre-intervention, post-intervention, and 3-month follow-up points. Multiple linear mixed model analysis was performed to determine the impacts of that SNP after being adjusted for covariates. After the program, the intervention group increased their frequency of breakfast, lunch, and dinner consumption and morning tea snacking and showed more frequent physical activity and better cognitive performance as compared to the comparison group overtime ( $p < 0.05$ ). At 3-month follow-up, the intervention group showed lower BAZ scores than their comparison counterparts ( $p < 0.05$ ). The SNP showed positive effects on eating behaviors, physical activity, BAZ, and cognitive performance in school children. Hence, the SNP is highly recommended for all primary school children.

After the program, the intervention group

- increased their frequency of breakfast, lunch, and dinner consumption and morning tea snacking
- more frequent physical activity
- better cognitive performance

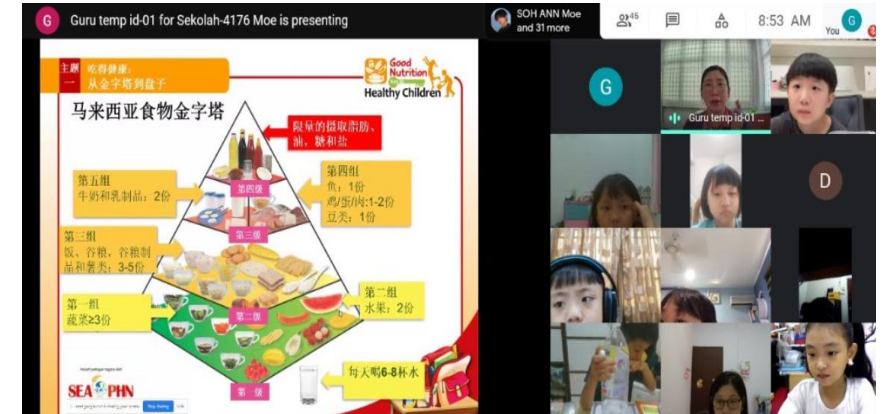
as compared to the comparison group overtime ( $p < 0.05$ ).

- At 3-month follow-up, the intervention group showed lower **BAZ scores** than their comparison counterparts ( $p < 0.05$ ).

# Malaysia School Nutrition Promotion Programme (MySNPP)

## - Our way forward

- ❖ The MySNPP that integrates both Little Nutritionist Camp and School Meal Programme is **feasible and well-received** by students, teachers and parents, regardless of the mode of delivery (online or on-ground).
- ❖ The active involvement and support of school authorities, parents and children have been essentially crucial to the program's success.
- ❖ **MySNPP (on-ground)** is extended to 9 more schools (Malacca, Negeri Sembilan, Perak and Kedah) in Year 2024 to empower the students to practise healthy eating and active lifestyle.



# Thanks to NSM!





# Thank You!

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