

# SEAMEO RECFON AWESOME

SOUTHEAST ASIAN MAGAZINE ON FOOD AND NUTRITION



## Balanced Nutrition Practices in the Workplace

**Workplace Wellness  
Programme --  
the IMU experience**

**Workforce Nutrition: Good for  
Employees, Good for Companies**

**SEBUSE : An Approach to Manage  
Obesity Among Employees  
in the Workplace**



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# Message from the Chief Editor



Warm greetings to all our readers,

Our magazine's theme for this year's issue is **"Balanced Nutrition Practices in the Workplace"** in support of our flagship program on "Nutrition Goes to Workplace" (NGTW). This program targets the working adults and reinforces our holistic approach to food and nutrition across the lifespan.

Over 72 million people in Southeast Asia are part of the workforce [Global Economy, 2021] and dedicate a significant amount of time to their jobs, with most of them spending at least 90,000 hours in their lifetime [Pryce Jones, 2010]. As such, it becomes essential for workers to maintain a high level of productivity to efficiently complete their tasks and contribute to attaining the goals of their companies.

Unhealthy eating habits and a sedentary lifestyle can lead to decreased productivity among workers and result in a significant economic burden due to illnesses [Grimani, 2019]. On the other hand, making healthier food choices and cultivating healthy eating habits can boost work productivity by at least two percent [Jensen, 2011]. This emphasizes the need for appropriate health and nutrition interventions in workplaces to promote the well-being of workers which in turn can impact on the well-being of their organization, family and community.

This issue includes insightful articles that highlight the importance of balanced nutrition practices in various workplace settings across Southeast Asia, including campuses, hospitals, and government offices. It also features an interview with an official of the Ministry of Health of Indonesia on the government's programs and policies related to the health and balanced nutrition of workers. You may also find interesting opinions from some readers we surveyed on how to promote balanced nutrition in the workplace.

We hope you will enjoy reading this year's issue of our magazine and also share it with your colleagues. We value your feedback by writing a letter to our Executive Editor via email ([jcfernandez@seameo-recfon.org](mailto:jcfernandez@seameo-recfon.org)). We would appreciate your suggestions for the theme of our next issue.

Dr. Zainun Misbah, M.Sc



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## Procedures for Submission and Acceptance of Articles:

The Magazine will announce a call for articles at the start of every year. The submitted articles shall be screened and selected by the Editorial Board according to certain criteria. For more information you can contact the Knowledge Management and Policy Support Unit at [information@seameo-recfon.org](mailto:information@seameo-recfon.org) or [recfon.awesome@seameo-recfon.org](mailto:recfon.awesome@seameo-recfon.org)

# Workplace Wellness Programme – the IMU experience

By Lee Ching Li and Winnie Chee Siew Swee, Centre for Transformative Nutrition & Health, International Medical University, Kuala Lumpur, Malaysia

Many people spend a significant proportion of their time at work. In Malaysia, 69.3 percent are within the working age<sup>(1)</sup>. Among those who work, the average time they spend at work ranges between 38.5 to 42.5 hours a week with men working longer hours than women<sup>(2)</sup>. At the workplace, obesity is associated with increased absenteeism, reduced presenteeism, increased chances of unemployment, negative impact on wages, and loss of potential future contributions due to premature deaths from obesity-related diseases<sup>(3)</sup>. For this reason, the workplace is a suitable platform to improve lifestyle behaviour that targets the non-communicable diseases that are responsible for 74 percent of all deaths in Malaysia<sup>(4)</sup>. A healthy workforce also supports economic growth. Long-term data show that the most successful and competitive companies are the ones that have the best health and safety records, and the most physically and mentally healthy and satisfied workers<sup>(5)</sup>.

Recognizing the importance of workplace wellness, the International Medical University (IMU) launched IMU Wellness in 2017. IMU Wellness is a workplace initiative to address wellness of the organization in five aspects: health risk assessment, healthy lifestyle activities, disease management, smoking, and mental health and stress management.

## What works?

When designed and implemented properly, a workplace wellness programme can effectively manage chronic disease risk. Case in point? The IMU HEAL (Healthy Eating Active Lifestyle) programme. Under the IMU Wellness umbrella, the IMU HEAL program was implemented in 2019 to manage chronic disease risk of IMU employees.

The IMU HEAL programme comprised two major elements that support lifestyle change – a structured lifestyle



Launch of IMU Wellness by the Deputy Health Minister on 11 May 2017

intervention and the use of a mobile health application.

### Structured lifestyle intervention:

This intervention targetted IMU staff members having a body mass index of more than 23kg/m<sup>2</sup>. Thirty participants were accepted and attended five group nutrition education sessions that were led by IMU dietitians on a fortnightly basis.

The sessions were held on Saturdays within one to three hours depending on the topics related to portion control, grocery shopping, healthy cooking, eating out, and weight maintenance which also incorporated practical nutrition skills and simple nutrition messages that can be readily implemented into everyday life. The sessions were also complemented with group exercise sessions lasting from 30 to 45 minutes each led by IMU Wellness Program staff. A structured meal plan was provided at baseline to keep daily calorie intake within 1200 - 1500 kcal. The meal plan was an illustrated booklet containing 155 Asian food and beverage choices that were calculated for calories, fat, sugar, and salt content. The choices were colour-coded for easy reference into:

Green (choose more often): less than 350kcal per meal, small portion, meal has variety, low fat, low sugar, low salt, includes wholegrains

Yellow (choose occasionally): less than 500 kcal per meal, larger portion size and the meal lacks variety

Red (choose least often or avoid): more

than 500 kcal per meal, large portion size, the meal lacks variety and is high in fat, sugar and salt

As part of calories and portion control strategy, suitable meal replacements in the form of liquid shakes were provided to participants to assist in weight loss.









The grocery shopping session helped the participants learn skills that support healthy eating: "I'm more particular in buying. I look at everything. So, I see the calories and everything and then only I buy rather than looking at the packaging itself." Male participant



The portion control session included simple messages that can be implemented in daily life: "I think the 'suku-suku separuh' [plate method] is very doable longterm." Female participant



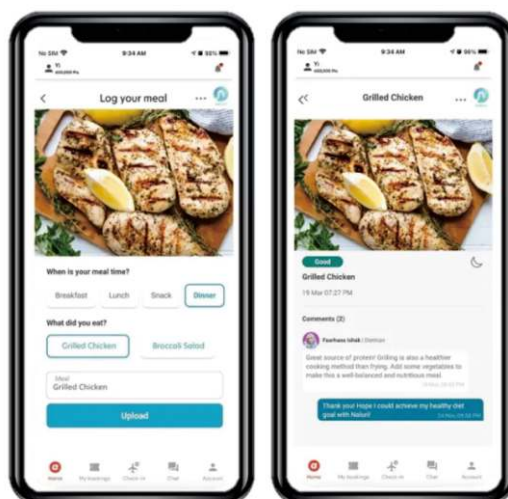
## Breakfast Choices

Limit (Calories more than 500 kcal, large portion, lack variety, high fat, sugar and salt)	Choose Moderately (Calories are within 300-400 kcal but some portions are incorrect or the meal lacks variety)	Choose More Often (Calories less than 350kcal, small portion, meal has variety, low fat, low sugar, low salt, includes wholegrains)
<p>Nasi lemak, 1 small pack - Fried egg, 1 whole + Teh Tarik, 1 glass Total: 725 kcal</p> 	<p>Nasi lemak bungkus, 1 small pack + Plain water, 1 glass Total: 400 kcal</p> 	<p>Egg sandwich - Wholemeal bread 2 slices - Hardboiled egg 1 egg - Cheese 1 slice + Black coffee, 1 cup Total: 283 kcal</p> 
<p>Roti canai, 1 pcs + Chutney gravy, 3 tablespoons + Teh Tarik, 1 glass Total: 660 kcal</p> 	<p>Vegetables salad, 1 bowl - Variety of salad vegetables - Salad dressing sauce, 2 tablespoons + Plain water, 1 glass Total: 220 kcal</p> 	<p>Wholegrains breakfast cereal, 1 small bowl (45g) - Low fat milk, 240 ml - Roasted Nuts, 1 handful Total: 320 kcal</p> 

The meal plan affirmed autonomy when eating a healthy diet: "This one I get to eat as I want. Like I have control over my timing." Female participant

## Use of mobile health application:

Throughout the study, the participants used the Naluri mobile health application, based on cognitive behavior therapy and motivational interviewing approaches to support behavior change<sup>(6)</sup>. Nudges were sent from the mobile application by Naluri dietitians to encourage the participants to self-monitor their diet and weight. The participants uploaded photographs of their food intake for feedback from a dietitian via the application. The participants also weighed themselves at home using a digital weighing scale that was connected to the mobile application



The participants found the feedback after uploading of food photographs into the mobile health application useful: "Food journal because all the dietitian, they will reply, comment." Female participant

## Results!

Within 12 weeks, participants of the IMU HEAL programme significantly lost weight by an average of 5 kg and decreased their BMI by 1.2 units. In addition, there were significant reduction of blood triglycerides level as well as systolic blood pressure. The proportion of participants who achieved normal blood pressure rose from 16.7 percent to 58.3 percent<sup>(7)</sup>.

## Future of workplace wellness

The IMU HEAL programme proved that workplace wellness is an effective strategy to combat rising obesity and its co-morbidities among working adults. However, shortly after the implementation of the IMU HEAL programme, the COVID-19 pandemic hit and changed the concept of work i.e. most individuals are now working from home few days a week. For the team of researchers behind the IMU HEAL

programme, the pandemic reinforced the necessity to innovate towards online delivery to achieve the same objectives. We are now embarking on IMU-eHEAL where the activities are converted to virtual platform and the addition of online exercise activities with flexible scheduling to accommodate different work arrangements.

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By Stefanus Indrayana – PT Indofood Sukses Makmur Tbk

**G**ood nutrition is a key driver for healthy lives of workers and healthy business operations. However, awareness on the importance of good nutrition in the workplace to support employees' health and well-being seems to be still relatively low in Indonesia.

Many studies revealed that health and nutrition status can directly affect workers' productivity in the office in relation to experiencing work fatigue. Therefore, optimal regulation of nutritional status by minimizing work fatigue is needed to achieve optimal productivity (Ramadhanti, 2020). It is necessary for companies to have programs that can support the improvement of employees' nutrition and health.

Indonesia is among the 65 countries who joined a global movement called Scaling Up Nutrition (SUN) that envisions a world free from malnutrition in all its forms by 2030. Led by governments and supported by organizations and individuals, the movement calls for a collective action to ensure that every child, adolescent, mother and family can realize their right to food and nutrition, reach their full potential and shape sustainable and prosperous societies. There are five SUN networks, namely: government, donors, business, academia, and non-governmental organizations (NGOs). As a private sector, Indofood takes on the role of initiator and leader of the SUN Business Network (SBN) in Indonesia. Indofood's Director, Mr. Axton Salim, serves as Co-Chair of the SBN Advisory Group (Global).

SBN Indonesia has three main priorities, namely: First 1000 Days and Adolescents, Balanced Nutrition, and Sanitation & Hygiene. As part of the Balanced Nutrition priority, companies are encouraged to practice workforce nutrition program. In support of this priority, Indofood implements four workforce nutrition programs which include nutrition and health education, physical activity/sports, healthy food at work, and pregnant women's and breastfeeding support.

### Nutrition and Health Education

Indofood regularly conducts seminars/webinars and provides educational materials to its employees to increase their knowledge on various topics related to balanced nutrition, "My Plate Guidance", and non-communicable diseases towards improving their health status. From the pre-post tests conducted every seminar/webinar, results show a 20 percent average increase in employees' knowledge about the topic discussed. Employees' high interest on every seminar/webinar topic is usually evident in their active participation during the question and answer session.

The seminar/webinar is usually held once per quarter featuring public health and nutrition experts from relevant government institutions and universities in Indonesia as speakers. The event is jointly organized by the Corporate Social Responsibility (CSR) Department and Public Relation (PR) Department under Corporate Communications Division.

#### TUMPENG GIZI SEIMBANG



CSR NUTRITION  
CORPORATE COMMUNICATIONS 2020

Balance nutrition education  
through comic

### Physical Activity / Sports

Generally, employees that work in the office have very low physical activity, which causes the body to release less energy. This can lead to an increased risk of obesity among employees. Obesity can cause a decrease in work productivity due to illness and premature death, which can cause economic losses (Wulansari, 2016). Therefore, Indofood created a physical activity/sports program to increase awareness on healthy lifestyle, physical activity and wellness, as well as to prevent obesity among its employees. This program is held in the form of routine exercise, booth camp, and 6,000-step walking sports challenges within a certain period. During the pandemic, exercise is held online.

Indofood staff members per division are encouraged to do routine physical exercises such as stretching, aerobics or indoor/outdoor sports activities whenever possible every 3 pm at least once a week. The company conducts annual boot camps for the general staff in collaboration with an event organizer specializing in fitness activities. For the walking challenge, the company cooperates with a health promotion organizer who has application software to monitor the walking challenge and record the performance of the employees.



*"Be Healthy, Be You" is one of the physical activities of the company*



### Healthy Food at Work

In 2014, the Ministry of Health (MoH) of Indonesia issued the Balanced Nutrition Guideline (*Pedoman Gizi Seimbang*) to encourage the general public to practice proper food consumption for better health. However, food consumption of Indonesian people is still not based on this guideline, and the consumption of fruit and vegetables is still low according to the Basic Health Research (Riskesmas) 2018 as surveyed by MoH. People tend to consume foods with high levels of sugar, salt, and fat, even though

continuous consumption of these type of foods can increase the risk of non-communicable diseases such as diabetes, hypertension, stroke, and heart disease. These diseases can reduce employee productivity and increase economic loss.

Indofood's Healthy Food at Work program is the company's way of advocating the government's Balanced Nutrition Guideline among its employees towards improving their nutritional status. This program assesses the nutritional value of the foods served daily in the canteens of Indofood's

operational units using an application created by the company. Canteen administrators can assess the food's macronutrients before coming up with monthly menus for the employees based on balanced nutrition guidelines. The company surveyed 54 canteens in its various operational units and analyzed around 1,000 menus to find balanced nutrition meal packages for all the employees. This effort of the company made the employees realize the importance of balanced nutrition.



Indofood's lactation room

### Pregnant Women and Breastfeeding Support

Indofood believes that this program can help to reduce the risk of malnutrition problem for the employees' children and can also contribute to reduction of stunting prevalence in Indonesia. Under this program, pregnant women who work in factories and do physical work will be temporarily reassigned to a safer and more comfortable location. In addition, a 3-month leave period is given to pregnant women, following the government regulation.

For breastfeeding employees, Indofood has guidelines and provides lactation rooms in operational units for them to pump their breastmilk anytime they need to. The lactation room is equipped with refrigerators and sterilizers as well as relevant educational materials. Webinars are also held for pregnant women and breastfeeding mothers to increase their knowledge and prepare themselves for caring for their children. Currently, Indofood has more than 45 lactation rooms spread across all operational units.

Implementing a workforce nutrition program is a win-win situation for the company and the employees as well their families. The company could benefit from improved productivity, less absenteeism, less medical cost, more engagement from employees and employees' loyalty. On the other hand, employees get better understanding on health and nutrition and practice a healthier lifestyle while at work and at home.

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# SEBUSE : An Approach to Manage Obesity Among Employees in the Workplace

By Utari Woro H. and Ghina Nadya R, Department of Nutrition, Universitas Muhammadiyah Surakarta, PT Kilang Pertamina Internasional RU V Balikpapan

A healthy lifestyle is crucial for adults considering that a decline in health condition can lead to various diseases. Non-communicable/chronic diseases such as obesity, hypertension, high blood glucose, and cancers are recognized as being primary factors that cause most death and disability cases globally according to the 2019 Global Burden Survey<sup>(1)</sup>. Indonesia is also facing an increasing trend in various chronic diseases in adults. For instance, obesity prevalence among Indonesian adults increased by 43.9 percent from 2013 to 2018<sup>(2)</sup>. This is alarming because obesity is linked to various negative health outcomes that include cardiovascular disease, type 2 diabetes, various types of cancer, osteoarthritis, and sleep apnea<sup>(3)</sup>.

Most adults today spend up to two-thirds of their waking hours at work thus the workplace has been considered as a key setting for the promotion of a healthy lifestyle<sup>(5)</sup>. Workplace stakeholders are challenged to resolve workers' nutrition and health issues, even though it is complex, to avoid potential economic burden in the form of direct costs (i.e., healthcare costs) as well as indirect costs (e.g., increased absence from work and decreased productivity)<sup>(4)</sup>. Interventions such as nutrition, exercise, and lifestyle changes based on education programs have shown a positive impact on workers' healthy lifestyle including dietary intake<sup>(6)</sup>.

An example of a corporate wellness program that is now being implemented in Indonesia is called SEBUSE, an acronym for Sehat Bugar Senang (i.e., Healthy, Fit, and Happy in English). This program was initiated in 2018 by Pertamina, an oil refinery company, to generate positive and improved health outcomes especially to reduce obesity among most of its workers in every factory unit in Indonesia. The Health, Safety, Security, and Environment (HSSE) Department is responsible in managing SEBUSE. Pertamina's oil refinery unit in Balikpapan has been implementing SEBUSE since 2022. The program consists of nutritional screening, counseling, physical activity routine, and live-streaming health talks. Each month,

a nutritionist takes anthropometric measurements (height, weight, and waist circumference), and analyzes body mass index of workers as part of the nutritional screening. The measurement results are incorporated with the results of the workers' annual medical check-ups to determine the right diet and health approach for them.



*A Pertamina RU 5 Balikpapan worker undergoes screening with a nutritionist*

The SEBUSE program, through the company's nutritionists, prescribes the workers' dietary intake according to their needs. Those with obesity is encouraged to comply with a meal plan (i.e., balanced nutrition with low fat, high fiber) and routinely do physical activity. The nutritionists also give counseling to each worker with obesity to monitor and sort out their challenges to comply with their dietary regimen. The program also engages the workers in physical activity such as aerobic exercise every week on Fridays at the factory site. The activity is called 'Wellness Friday'. To advocate the practice of balanced diet and healthy lifestyle to a bigger audience, the program provides live-streaming talks with the company doctor and nutritionists. The talks are meant to educate and improve workers' knowledge about food choices and lifestyles.

The progress of SEBUSE is closely monitored by the section head of the health department. Every month, the

nutritionists will report the result of worker's health and dietary status, the challenge that arise and the mitigation plan. Even only after a year of implementation, the SEBUSE program has already made an impact on Pertamina workers. The program only targetted 40 percent participation rate from the company's 600 workers at the Balikpapan oil refinery unit.



*Wellness Friday is a physical activity of the company*

But now, 230 workers have committed to continue to be in the program. Several workers have made changes in their dietary habits and have engaged in physical activity with higher intensity. The company continues to encourage the rest of the workforce to join the program particularly the health-check up. In order to achieve the target, the company's nutritionists have already made plans to do worker's home visits and adding more days of health check-

Future interventions will ensure that the dietary intake at the workplace is suitable for the worker's nutritional needs through monitoring the calories, portion, and ingredients of foods that are served in the company's canteen. The program plans to suppress staff members' smoking habits and help them transition

into healthy eating habit by offering a package of mix fruits at discounted price. To encourage staff members to engage more in physical activity, the program will organize various sporting events with appropriate incentive to the winners.

Investing in employees' well-being has been proven to create a healthy and productive workforce. The SEBUSE Program is showing promise towards this.



*Company staff members pose after a live-streaming talk*

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# Improving School Teachers' Health Behavior at Their Workplace for Blood Pressure Control through the SUGMA Model

By Sugma Agung Purbowo, Universitas Indonesia

A healthy working environment is essential to all employees inasmuch as one-third of their waking hours are spent at work and could have a significant impact on their health. Schools are no exception. As workers, teachers must maintain their health to provide quality education for the next generation to be able to contribute to national development in the future.

Teachers are prone to degenerative diseases such as hypertension as shown by previous studies from several countries. Hypertension prevalence among teachers was mostly associated with low levels of physical activity (PA) in the workplace, obesity, and unhealthy food consumption at school. It was also associated with higher workloads and work stress, especially in elementary schools.

Teachers are included in the category of professionals with a low PA level. This situation got more serious during the pandemic as most teachers just sat down in front of their computers to teach all day. This sedentary behavior is closely related to future degenerative diseases such as diabetes and hypertension.

## Health Promotion Program for Elementary Schoolteachers

One of the alternative solutions to overcome this health problem among teachers is to create a healthy workplace environment that would encourage them to adopt healthy behaviors. A workplace wellness program (WWP) in school could be beneficial not only for the teacher's health but also for students and other members of the school community. Many school-based health promotion programs already exist in different countries, including Indonesia. Unfortunately, the focus of such program in Indonesia is more on the students than the teachers. Thus, we developed a school-based health promotion model to help primary schoolteachers manage their blood pressure (BP). We call the model SUGMA which is an abbreviation for a Bahasa Indonesian phrase "*Penggunaan Skrining sebagai Umpan balik bagi Guru untuk Monitoring mengAtasi tekanan darah tinggi.*" It means that teachers use screening results as feedback to monitor their healthy behavior changes to control high blood pressure.

The SUGMA model was derived through a process consisting of a systematic review, phenomenology study, and feasibility study. The systematic review was conducted as a first step to finding evidence of the effectiveness of a variety of models in controlling BP in the workplace. It was also aimed at obtaining specific interventions or multi-component approaches to changing behavior as well as other elements needed to build a model. These elements included providers, resources, participants, activities, and goal measurement. The data collected were then used to build a draft intervention model. The phenomenology study was conducted to obtain experts' experiences in health promotion programs, inputs on the draft model, and validation of the final model. Policymakers, healthcare providers, professional organizations, and elementary school teachers were invited to join the focus group discussion. The systematic review and phenomenology study took a year before a feasibility trial was conducted to determine the real effect of the model on controlling BP.



School teachers pose after a health promotion session

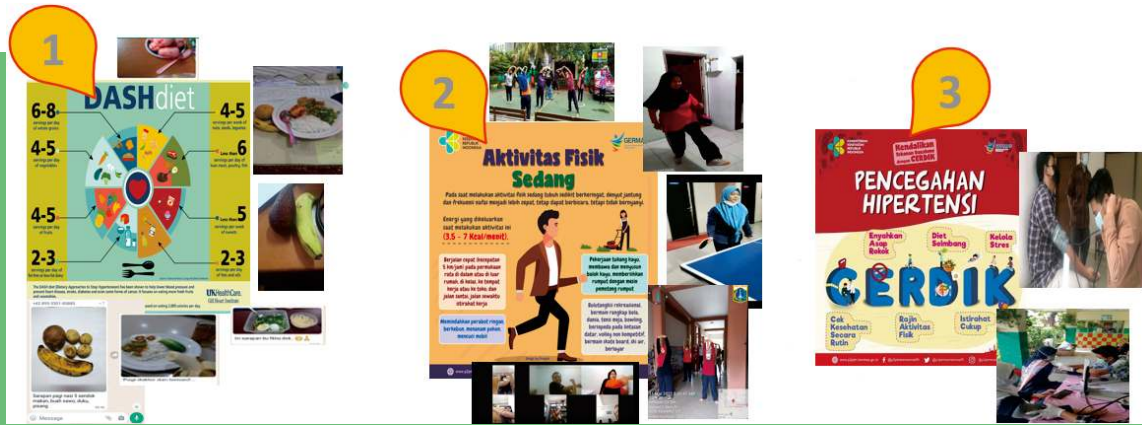
The SUGMA model was piloted in early 2022 in three public elementary schools in Central Java involving 44 teachers with high blood pressure (prehypertension/hypertension). To avoid the major hypertension-related diseases (stroke, heart diseases, chronic kidney disease, and COVID-19), the teachers were instructed to do three behaviors consecutively: dietary

approaches to stop hypertension (DASH), increasing PA with exercise, and checking BP regularly at least once monthly. The multi-component approach was employed as a behavior change strategy. It consisted of biometric and health behavior screening, post-screening follow-up, training and education, consultation/counseling, behavior self-monitoring, and self-

branding rewards. Topics covered in the two-hour-weekly classes included hypertension as a silent killer, its risk factors, how to control or avoid them through DASH and PA, weight loss strategies, a healthy school environment, and behavior change communication.



# Improving School Teachers' Health Behavior to Control Their Blood Pressure through the SUGMA Model in Their Workplace



(1) dietary approaches to stop hypertension (DASH), (2) increasing PA with exercise, and (3) checking BP regularly at least once monthly

*Consecutive behaviors of elementary schoolteachers during the Program*

The teachers were consulted and counseled on their screening results and behavior change for half an hour once a month for three months at the beginning of the academic calendar. These sessions were conducted in cooperation between the public health center (PHC) supervised by a family doctor specialist who was serving in the study area

## Advantages of Implementing the SUGMA Model in Schools

The strength of the SUGMA model was its ability to decrease both systolic and diastolic BP while increasing healthy behaviors of the teachers that participated in the program even though it did not achieve the ideal numbers yet. This model had also successfully motivated the teachers to walk to work more and reactivated the schools' all-staff exercise break. Further, it encouraged them to consume more fruits and vegetables as recommended in DASH at lunchtime and on certain occasions. Although decrease in weight

was not significant, however, the resulting weight measurements among most of the successful participants fell within a safe range.

The SUGMA model also stimulated the participants to check their blood pressure and consult with healthcare providers such as the community health clinics in their respective areas. Some of them started taking medication after the intervention. This kind of behavior change is expected to increase the need to have access to local comprehensive healthcare services especially for school teachers who have hypertension.

Though the online counseling/consultation sessions were done via online mode during the program due to the pandemic, they proved effective in influencing the mindset of most of the teachers on the importance of broadening their knowledge of hypertension. Moreover, they became much more aware of their health conditions.

## Opportunity and Challenge

The SUGMA model has a high potential for extensive implementation considering the rising number of family doctors and the interprofessional collaboration framework in primary care services in Indonesia. It can be integrated with the existing national programs such as the school health program (UKS) and non-communicable disease health integrated posts (Posbindu PTM). However, implementing it in more primary schools in Indonesia is necessary to increase the evidence of its usefulness. Training of trainers for more PHCs in different geographical areas should be done accordingly. Collaboration between the health and education sectors is crucial to support this program. The National Health Insurance (BPJS) should also be involved considering the different referral PHC for each participant in one school location.

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# Juma't Berkah: Improving the Nutritional Status and Work Relationships among Teachers of SMKN 7 Surakarta in Indonesia

By Asri Pujiastuti, SMKN 7 Surakarta, Indonesia

School teachers play an important role in supporting school-based nutrition improvement programs for students. They are expected to be the source of information as well as role models for students on balanced nutrition for a healthy lifestyle. However, maintaining such lifestyle can be challenging to most school teachers due to their hectic work and family responsibilities everyday. This leads them to practice poor dietary habits most of the time which can cause obesity, diabetes, and increase in certain risk factors for stroke, heart disease and cancer as proven by several studies. Indonesian school teachers are no exception to this situation.

According to 2018 data from the Ministry of Health of the Republic of Indonesia, the prevalence of obesity in adults in Indonesia reached 21.8 percent. This indicates that poor nutrition is still a serious problem in the country. The study of Fadilah, et al (2019) on school teachers at a vocational school in Makassar City revealed that most of the teachers experienced nutrition problems due to a lack of knowledge about balanced nutrition, lack of time to eat, and unhealthy eating habits such as consuming fast food. A similar study by Prasetyo et al. (2018) at a high school in Malang City also showed that most of the teachers experienced nutrition problems due to a lack of knowledge about balanced nutrition, difficulty in scheduling meals,

and a lack of access to healthy food around the school environment. The teachers in both these schools were also found to experience fatigue, headaches, and digestive disorders.

One school in Indonesia that has started to look after the nutritional improvement of their school teachers is *Sekolah Menengah Kejuruan Negeri* (SMKN) 7 Surakarta (State Vocational High School). This national secondary vocational school optimized its land area of 18,283 m<sup>2</sup> by establishing a school garden to produce fruits and vegetables as healthy source of nutrition for the school community members. School gardens have been proven to be "effective in increasing fruit and vegetable consumption among children and adolescents, promoting positive attitudes toward healthy eating" (Davis et al., 2015, p. 235), "supporting food literacy, and ultimately reduce the risk of obesity and chronic disease among children" (Litt et al., 2018, p. 2). School gardens can also promote biodiversity, reduce the use of chemical substances in food through organic farming practices, and increase awareness of environmental sustainability (Ozer, E. J. (2007).

With the harvests from their school garden, SMKN 7 Surakarta launched a program called *Jum'at Berkah* (Blessed Friday) in 2023. This program aims to increase a sense of family among its 100 teachers and staff, as well as develop

healthy eating habits among them through shared meals. Through this program, SMKN 7 Surakarta provides healthy and nutritious food every Friday for teachers and staff. The menu is prepared by the teachers themselves according to the principles of balanced nutrition.

The school cultivates tilapia and produces blue butterfly pea flowers, two food sources that have many important health benefits and are commonly included in the menu preparation for the Juma't Berkah program.

According to the United States Department of Agriculture, 100g of grilled Nile tilapia contains 20.5g of protein, 2.5g of fat, 0.6g of omega-3 fatty acids, 234 calories, 26 percent of recommended daily intake (RDI) of Vitamin D, 31 percent of RDI of Phosphorus, and 78 percent of RDI of Selenium. The USDA also reported that consuming 100g of butterfly pea flowers can provide 43 calories, 10g of carbohydrates, 1.6g of fiber, 0.9g of protein, 0.1g of fat, 24 percent of RDI of Vitamin C, 214mg of Anthocyanins, and 30mg of Flavanoids.

Freshly harvested tilapia is processed at the school's kitchen facilities into various kinds of dishes following the menu prepared by the teachers for the *Jum'at Berkah* program. The food preparation involves students from the culinary skills program as part of their practicums.



Students assist in processing Tilapia and butterfly pea flower

Butterfly pea flowers are processed into syrup or drinks by cooking and mixing them with various other ingredients such as lemongrass, ginger, pandan, and sugar. These ingredients are added to provide a more flavorful and aromatic

taste, while also providing beneficial nutrients for the body. Butterfly pea flowers are also consumed as salad and natural food coloring for various types of food products.





## Juma't Berkah: Improving The Nutritional Status and Work Relationships among Teachers of SMKN 7 Surakarta in Indonesia

Through the *Jum'at Berkah* Program, the school teachers and staff have become more concerned about their daily nutritional intake. They have also become more engaged and closer in their social relationships with each other creating a more harmonious working atmosphere in the school. In addition, the management of resources in the school, such as the school garden, is now being used more effectively and efficiently for the nutritional improvement of the school teachers and staff. The food preparation for the

program has also enriched the interaction between the school teachers and the students in terms of honing their cooking skills.

The school plans to conduct a medical check up for blood sugar hemoglobin, blood pressure, HDL and LDL levels to see the impact of the program on the nutritional and health status of the school teachers and staff. In addition, the school sees it necessary to hold a counseling session with a nutritionist during the *Jum'at Berkah* Program to

guide the school teachers and staff to implement a balanced diet and healthy lifestyle not only at school but also in their daily life with their families.

The experiences of SMKN 7 Surakarta has proven that a school, as a workplace, can be a venue to promote and sustain healthy eating habits and better work productivity among school teachers and make them effective role models to their students and other school community members.



*Teachers having lunch together in the Jum'at Berkah Program*

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# Providing Nutrition Balanced Meals for Hospital Staff in Cambodia

By Yoshiko Mizoguchi and Putheara Lon - International Medical Volunteers Japan Heart

In Cambodia, where people's knowledge about nutrition is limited, a charity hospital has been providing balanced nutrition meals for staff by the local staff since 2021. This hospital is the Japan Heart Children's Medical Center (JHMC).

Cambodia has a National Strategy for Food Security and Nutrition (2019-2023). Government agencies, international NGOs, and educational institutions are collaborating to promote various initiatives throughout the country along this national strategy. However, these efforts are still in their initial stages. There are few opportunities to learn about nutrition in schools and workplaces. Though there seems to be a movement to create a training system for dietitians in Cambodia, but the human resources are limited that can properly manage people's nutritional needs and provide evidence-based nutrition education.

Providing balanced meals in hospitals is challenging, especially in Cambodia which lacks both human resources and a constrained economy. A balanced diet is defined as eating a wide variety of foods in the right proportions, and consuming the right amount of food and drink to achieve and maintain healthy body weight (NHS, 2022). Few hospitals in Cambodia serve balanced diets for their patients and even for staff. Thus, the JHMC Nutrition Department has been supporting staff members' diets by collaborating with the Cambodian kitchen staff, who do not have adequate nutrition education background, and Japanese dietitians to provide nutritionally balanced meals and nutrition education to them.

Located in the countryside of Kandal Province, Cambodia, JHMC is a charity hospital established in 2018 by the International Medical Volunteers of Japan Heart Foundation, a Japanese NGO. With the construction of the Food Service Center in 2019, JHMC's Nutrition Department started full-scaled activities to provide balanced food to the patients and staff members.

## Creating Menu Standards

JHMC's Nutrition department provides balanced diets for about 100 staff including Cambodians and Japanese. These meals are served buffet style, three meals a day, Monday through Saturday, and menus are determined on a monthly basis (one-month cycle menu).



To make the staff meals nutritious, a Japanese dietitian created menu standards according to the seven food groups: grains, nuts, beans, calcium-rich food, flesh foods (meat, fish, poultry, and organ meats), eggs, vitamin A-rich fruits and vegetables, other fruits and vegetables. The standards are as follows: 1. Cover at least four groups each time. 2. Cover all seven groups in one day. 3. Use at least three kinds of meat in one day. 4. Consume at least five kinds of vegetables/ fruits. These food groups are based on Minimum Dietary Diversity (MDD), which is a food-based indicator to measure dietary diversity developed by WHO. There are three reasons to adopt MDD as the base of menu standards. First, it is difficult to plan menu standards with nutrients-base because there is no dietary guideline for Cambodian adults nor complete nutrient profile data of Cambodian foods so far.

Second, because MDD is a food base, not a nutrient base, it is easy to understand and follow for those unfamiliar with nutrition. Third, MDD can help to supplement vitamin A which tends to be deficient. In fact, according to the survey of women living in Kandal province, where JHMC is located, vitamin A intake is not sufficient. (Lauren J Wallace et al., 2014). There are food-based dietary guidelines for school-aged children and a Cambodian food pyramid developed by the Ministry of Health in Cambodia. However, they were considered not to be suitable for the menu standards because there was no distinction made between vitamin A-rich vegetables and fruits and food groups. The six food groups in the Cambodian food pyramid consist of cereals and starchy foods, vegetables, fruits, protein-rich foods, calcium-rich foods, salt, sugar, fat, and oil (Ministry of Health and Foundation for International Development/Relief, 2017). Other international and other countries' standards were taken into consideration but the MDD proved to be the best to apply.

The standards and a checklist of the seven food groups written in the Cambodian language are available in the hospital kitchen so the Cambodian cooking leader can follow in preparing meals for breakfast, lunch, and dinner. The checklist is filled out when the kitchen staff prepares the weekly menu and sees whether the menu meets the standards. The hospital started implementing the menu standards in January 2021. While the adherence rate was 72 percent in the first week, it achieved 100 percent in the second week and has been maintained since then. In addition to telling the staff how to use it, adding examples of local food on the checklist made it easy for them to follow the standards.

## Dietary Diversity Menu Check Sheet

7 Food Groups

Grains	Nuts, Beans	Calcium foods	Proteins	Eggs	Vitamin A rich Fruits and Vegetables	Other Fruits and Vegetables
-Rice -Noodles	-nuts -long bean -green bean -red bean	-Milk -Shrimp -Small fish -Dried fish with born -Pro Hok -Calcium Powder	-Pork -Chicken -Beef -Fish		-Carrot -Mango -Papaya -Moringa -Pumpkin -Sweet Potato -Broccoli -Capsicum	Other all fruits and vegetables

Monday ២០២៤

Breakfast						
Lunch						
Dinner						
Total						

Minimum Dietary Diversity (MDD) Check List



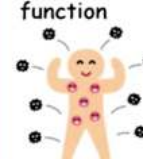


### Nutrition education to the staff

To support staff's healthy diet, the hospital dietitian occasionally holds nutrition education. Six topics have been covered so far, including basic nutrition information, the amount of rice, BMI, food groups (Cambodian Food Pyramid overall, calcium and iron), food nutrition, salty food, and sweet beverages. Nutrition education has been conducted through various formats, including live lectures, quizzes, videos, and posters. The prepared materials and nutrition education were conducted and modified along with current updated information from nutrition and dietetic academies.

The nutrition education focuses on two distinctive themes. The first theme is about the amount of rice.. Since the staff meals are provided buffet style, it was observed that many staff members were consuming more rice than their estimated needs, and many of them had high BMI scores as indicated in their health checkup results. Therefore, a poster was made about the amount of energy intake based on the amount of rice and the amount of exercise needed to consume that energy. The second theme is on food groups focused on calcium and iron. These nutrients are not sufficient even if the menu standards were achieved, according to the nutrition

evaluation of staff meals by the dietitian. As a countermeasure, frequent provision of milk high in calcium and meat liver high in iron were considered, but it proved that it was difficult to sustain due to a tight budget. Hence, explanation about the concept of food groups became necessary to encourage the staff to eat them accordingly. The materials of this content were put on tables where staff eat so that they would be reminded during each meal. Moreover, the materials were designed as a quiz rather than just an informational presentation to attract the staff's interest .

### Quiz!! Which nutrients the food center does not provide enough?

<b>1. Protein</b> <ul style="list-style-type: none"> <li>Builds all parts of the body</li> </ul> 	<b>2. Fat</b> <ul style="list-style-type: none"> <li>Produces energy</li> </ul> 	<b>3. Vitamin A</b> <ul style="list-style-type: none"> <li>Helps immune system function</li> </ul> 	<b>4. Calcium</b> <ul style="list-style-type: none"> <li>Makes strong bones and teeth</li> </ul> 	<b>5. Iron</b> <ul style="list-style-type: none"> <li>Constituent of red blood cells</li> </ul> 
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↓See the bottom for the answer

The answer is.... **4. Calcium** and **5. Iron**

We cannot provide them enough for financial reasons...

For **calcium**, have low-sugar **daily products** once or twice in a day recommended.

For **iron**, choose a dish with **liver** or **red meat** when you are off.

**Pumpkin seeds** and **sesame seeds** are also iron rich!



Education Table about Food Groups (Calcium and Iron)





*Staff members reading education material on the table while taking their meal.*

Despite the differences in food, flavorings, and other aspects of food culture, JHCMC has succeeded in supporting staff diets by providing nutritionally balanced meals and nutrition education through the collaborative efforts of the Cambodian kitchen staff and Japanese dietitians. In improving staff meals, kitchen staff were taught to create menus that are nutritious and feasible to prepare and, at the same time, incorporate Cambodian food culture.

Although no study has been conducted to show how the staff meals improved the staff's diet, it is presumed that staff meals have a positive impact on the

dietary habits of the staff. A survey of daily MDD achievement conducted by the author in September 2022 on 26 people living in Ponhea Lueu District where JHCMC is located, showed that the achievement rate was 60 percent compared to 100 percent in the staff meals. However, there is still much to improve in this kind of program. Under a limited budget and human resources, JHCMC still can afford to provide fresh food for three meals for hospital staff, but the quality of nutrients and serving food are still limited based on nutrient standards, compared to other hospitals with better nutritional care. Besides, there is no recipe yet for each menu. It means that the quality of meals depends

on the kitchen staff's cooking skills. And if not properly monitored, this can cause high intake of salt, oil, and other seasonings, which is associated with hypertension and obesity.

JHCMC's Nutrition department continues working on improving the staff nutrition and hopes that these activities can spread to other work places in Cambodia to improve the nutritional status of their workforce.

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# Workplace Health Program to Overcome Metabolic Syndrome among Female Workers in East Kalimantan Provincial Forestry Office

By Farida Nailufar, Nutrition Department, Health Polytechnic of East Kalimantan

The workplace has been recognised as a priority setting for health promotion by the World Health Organisation because workers spend a majority of their time at work. The average American worker spends 8.5 hours per days at work (Bureau of Labor Statistics, 2018). Meanwhile in Indonesia 68.53% of workers work >35 hours per week (BPS-Statistics Indonesia, 2018). Several studies showed that workplace health promotion impacted in increasing physical activity and healthy eating behaviour to reduce body weight, blood pressure, lipid profile, and depressive symptoms in workers (Anderson *et al.*, 2009; Conn *et al.*, 2010).

The metabolic syndrome is a combination of metabolic risk factors that include abdominal obesity, high blood sugar, abnormal cholesterol levels, and hypertension (Alberti, Zimmet and Shaw, 2006). According to the International Diabetes Federation (IDF), the metabolic syndrome occurs in almost 25% of the world's adult population (O'Neill and O'Driscoll, 2015). In Indonesia, the prevalence of metabolic syndrome was 23% in 2015 comprising 26.6% in women and 18.3% in men (Suhaema and Masthalina, 2015). Obesity, which is the main risk factor for metabolic syndrome occurs frequently in about 38.5% of female workers in the Indonesian government offices including civil servants, national army, police, regional-owned, and state-owned enterprises (Health Research and Development Agency, 2018). The risk of developing metabolic syndrome is 10 times greater in obese workers than those with normal nutritional status, where the health consequences include a huge loss for them and the organization (Hertz *et al.*, 2004). The problem of obesity among employees in Indonesia impacts high expenditures for health care estimated at IDR 56,487 billion/year and the economic value of lost productivity due to absenteeism from work, which is estimated at IDR 20,394 billion/year (Wulansari, Martianto and Baliwati, 2016).

The Healthy Living Community Movement or as Indonesian called

Gerakan Masyarakat Hidup Sehat (GERMAS) is a health promotion initiative launched by the Indonesian government. The GERMAS program is mandatory because it is a mandate from the Presidential Regulation of the Republic of Indonesia. This program is a systematic and planned activity carried out by all parts of the country with the awareness, willingness, and ability to act healthily to improve quality of life. The forms of GERMAS activities include physical activity, consuming fruits and vegetables, not smoking, no alcohol consumption, regular health checks, clean environment as well as using latrines. Since 2017 the Ministry of Health focus on three main activities of GERMAS namely: increasing physical activity, daily consumption of fruit and vegetables and regular health checks (Indonesian Ministry of Health, 2017). GERMAS can be done anywhere, including at the workplace. Therefore, the program can be used as an approach strategy for the reduction of obesity and metabolic syndrome among workers.

## GERMAS Implementation in Indonesia's Forestry Office in East Kalimantan

The Forestry Office is one of the government organizations in East Kalimantan Province. This organization consists of the head office and 20 work units with over seven hundred employees.

The Forestry Office has not implemented GERMAS since it was launched and most of its workers also do not know much about this movement. Workers seldom use sports facilities available in the Office and few of them participate in sports activities. The Office canteen sells foods that are high in fat and low in fiber. Snacks served during meetings are usually high in sugar and fat contents.

Thus, a research was conducted from December 2020 to April 2021 to determine the effect of GERMAS especially among female workers considering the high prevalence of obesity and degenerative diseases in women in East Kalimantan Province. Twenty female workers were selected

purposively according to inclusion criteria, namely aged 30-5-years and experienced metabolic syndrome based on IDF criteria (2005). The female workers were from the head office and Tahura work units which has the highest number of female workers. The most common component of metabolic syndrome among these female workers was central obesity followed by hypertriglyceridemia, hypertension, low HDL level and hyperglycemia.

For eight weeks, the female workers received health education and performed GERMAS activities. They were given as much as 400 grams per day of fruit and vegetables in the form of juice, salad, fresh-cut fruit, or local vegetables cooked in a variety of ways. Fruits and vegetables were delivered during working days, hence they could consume them as snacks or as a complement to meals. They were also encouraged to do physical activity of moderate-intensity sports, such as brisk walking, badminton, cycling, and aerobic exercise for up to 150 minutes per week. Health check-up was carried out before and after conducting the program including measurement of waist circumference, blood pressure, blood triglyceride levels, HDL cholesterol and fasting blood glucose. Fruit and vegetable consumption was measured using a self-food record form. Physical activity monitoring was performed using a smartphone application (GoogleFit, StepsApp, Fitpro) to find out the duration of physical activity. Health education was provided to participants before and after conducting the GERMAS program and knowledge improvement was measured through a questionnaire particularly on metabolic syndrome management.



Female workers included in the study attend health education session as part of GERMAS program

# Workplace Health Program to Overcome Metabolic Syndrome among Female Workers in East Kalimantan Provincial Forestry Office



Fruit and vegetable packages provided to female workers

Female worker undergoes health check up before joining the GERMAS program



Senior leaders in the Office receive advocacy on GERMAS Program

## Senior level support

Advocacy about the GERMAS program was carried out to all senior leadership aimed at generating support from them to ensure the success of the program. As a result, the senior leadership provided the following support:

- A written commitment to promote and sustain GERMAS activities in the workplace.
- Employees' access to healthy diet in the office canteen by directing the canteen vendors to sell more fruits and vegetables. The vendors were also directed to limit selling foods that use saturated fats, trans-fats, high amount of sugar, cholesterol, and salt, and other foods with poor nutritional values.
- Employees' access to sports facilities that are already available in the office such as tennis courts, volleyball courts, badminton, and table tennis to encourage them to engage in physical activities.

## Participant engagement

The study recorded a 52.4 percent employee participation rate in the GERMAS program. The majority of them took the health check-up and consumed all fruits and vegetables provided by the office, but only 57.1 percent did enough physical activity. Barriers to participation included workload, lack of nutrition and health knowledge, poor eating pattern, low physical activity and sedentary lifestyle, low social support, and unavailability of health promotion programs in the workplace

## Outputs and Outcomes

The GERMAS program was found effective in improving the metabolic syndrome components of the female workers. These improvements included a significant reduction in waist circumference, both systolic and diastolic blood pressure, and triglyceride levels. Significant increase in nutrition and health knowledge scores were also recorded among the female workers as a result of attending the education

sessions.

## Current Status of GERMAS Implementation in the Forestry Office

After the intervention study, the Forestry Office management advocated to implement GERMAS program to all workers. Food providers in the Office canteen are now required to offer a daily menu that contains more fruit and vegetables as well as less fatty and salty foods. Office workers are now advised to do stretching exercises or moving actively for 15 minutes which is done 2 times every day at 10.30 pm and 14.30 am. Sports activities become regular every Friday with guidance from a gym instructor. The Office seeks support from the local health government unit is needed to supervise and evaluate the program in order to improve health behaviour to prevent the risk of cardiovascular disease and other chronic diseases especially for workers in the East Kalimantan Provincial Government Office.

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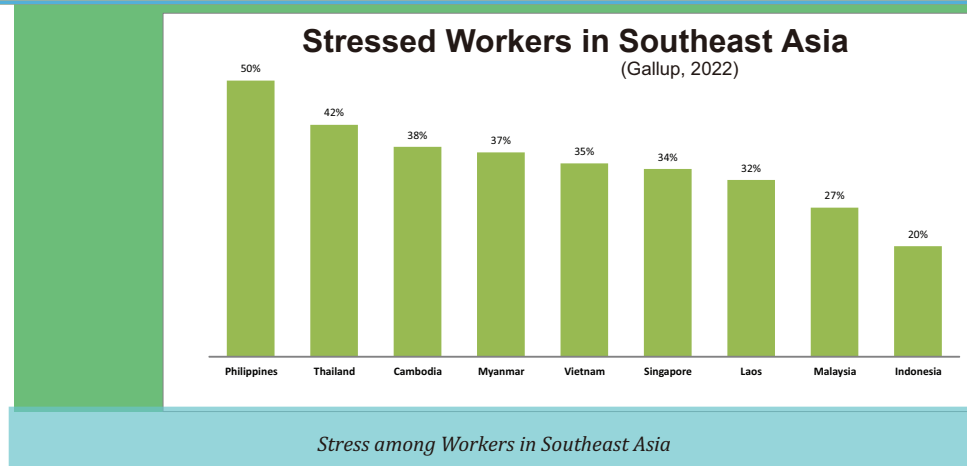
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**S**tress is one health problem that has become a common occurrence in workplaces. Working adults can spend up to two-thirds of their time at work and expend one-third of their calorie intake by working (Clohessy et al., 2019). According to Gallup's State of Global Workplace 2022 Report, 31 percent of workers in Southeast Asia feel stressed at work. The Philippines had the highest percentage of stressed workers (50%), while Indonesia had the lowest (20%). The Gallup Report, however, clarified that such stress could have a non-work related cause, but just happened to be felt while at work.

Gallup also analyzed the cause of workers' burnout, which is what unmanaged stress can eventually lead to. The analysis revealed five main work-related causes of stress which include unmanageable amount of workload, unfair treatment, lack of communication and support, role ambiguity/inclarity, and unreasonable time pressure. However, there are also non work-related factors that can contribute to workers stress including nutrition. Though nutrition might not directly cause work stress, it can certainly affect mood and the human body's response to stress.

The practice of consuming a balanced diet is known to bring about a positive impact on a person's health in terms of supporting the immune system and repairing damaged cells. It can also provide extra energy needed in coping with stress. There are several foods that have been proven to generate a positive impact on pathways related to stress regulation such as omega-3 and vegetables. Polyunsaturated fat can reduce stress-induced cardiovascular responses. A type of polyunsaturated fat, omega-3 fatty acid, can normalize abnormally low cortisol as a response to acute stress. Higher vegetable intake is believed to have an association with lower stress level because of its vitamin B, vitamin C, magnesium, zinc, and calcium content (Soltani et al. 2018). These vitamins and minerals can facilitate the regulation of brain pathways including stress responsiveness that is critical to maintain a healthy mood and emotional



state. On the other hand, there are also food contents that can cause stress such as sodium, refined carbs, sugar, and caffeine. Therefore, limiting the intake of these food components can help minimize cortisol overexposure and decrease hunger for comfort food (Aucoin et al., 2021).

Having a good health and nutrition status is a crucial factor for enabling workers to fight stress and also to become productive in their workplace as shown by several studies. However, lack of access to healthy and nutritious food at work coupled with workplace stress may render workers to practice poor dietary habits causing malnutrition problems and poor job performance in the long run. The workplace food environment plays a critical role to help address these concerns such as having a canteen or cafeteria that promotes the practice of balanced nutrition and healthy lifestyle among workers.

A study was conducted in a company in Sidoarjo, Indonesia by providing breakfast, lunch, and dinner in their canteen with an arranged menu that meets the nutritional needs of their workers (Dwicahtyaningtyas et al., 2021). The canteen menu was prepared by the Menu Development section for 16 days and consisted of balanced nutrition from carbohydrates, animal protein, plant protein, vegetables, dessert, and additional (chili and crackers). The company also provided nutrition education on nutrition related diseases displayed via powerpoint slides, and healthy foods via television to their workers as additional intervention.

The study revealed that the 16-day balanced nutrition menu cycle arranged by the company provided health benefits to the workers. These benefits included enabling them to have control over their health, and increasing their productivity and health-related personal skills by supporting and motivating them to adopt a healthy eating habit into their daily life and also through the mandatory and functional training programs that are integrated in the workplace. The said menu cycle also enhanced the workers' knowledge as it also served as a model of diverse food which went along the study's aim to influence change in the dietary patterns in every worker. The workers also acquired adequate information and skill to maintain their health status because of the nutrition education given to them. Overall, the program helped increase the workers productivity as well as their skills and knowledge on food provision.

The Ministry of Health of Indonesia also advocates having healthy canteens in academic institutions in the country as a major component of its program called "Kampus Sehat" or Healthy Campus (Direktorat P2PTM, 2013). One of the universities which has adapted the program is the University of Indonesia through its "Healthy Community and University" Program. The University has become a model campus for campaigning and promoting healthy lifestyle among students, lecturers, staff, and other UI residents particularly in managing a healthy canteen that ensures the provision of nutritious meals (Maudisha, 2022).





*A Canteen at a school in Surabaya*

An example of this can be seen in the UI Faculty of Psychology canteen which implements the standard of a healthy canteen service. The standard was specifically designed for their canteen to ensure the consumers' health and comfort. It covers plenty of rules regarding their tenants criteria, food processing, food service, food storing, and overall hygiene and safety. One of the rules mentioned in their standard is that the tenants must serve food/drinks using clean, healthy, and nutritious ingredients. The tenants serving food in this canteen must previously go through a selection process to ensure they comply with this standard. The selection process involves a menu review and bacteria testing. The food served must also have a halal certification from MUI. The strict implementation of this standard is what ensures the provision of healthy and nutritious food for the students and staff (Rahmawati, 2020).



*Facilities and sample of food served in a canteen at Universitas Indonesia*

Among the indicators that serve as assessment points for a healthy campus program include having a clean, healthy, and safe environment. The University of Indonesia already implemented the biodegradable cutlery and the use of sustainable drinkware (Maudisha, 2022). The sustainable drinkware initiative is also supported by having drinking water fountains in strategic areas of the university campus. The university also advocates "zero tolerance for smoking", early detection of non-communicable disease (NCD), and regular health and physical activities (Direktorat P2PTM, 2013). These indicators can be achieved in line with better lifestyle changes among students, lecturers, staff, and other UI residents (Maudisha, 2022). Although there are currently no studies conducted regarding how this program could improve nutritional status and lifestyle among UI residents, however the Students Executive Board currently distributes questionnaires in order to collect data and conduct surveys that could statistically assess how successful the healthy campus program is.



*Canteen in Pasundan University*

Aside from offering healthy and diverse food options, a canteen or cafeteria can also be a venue for reducing workers' stress by providing a comfortable, cozy, and relaxing environment (Adam, 2022). A canteen is also a space for workers to socialize and bond with other workers (Lamers Zorg & Arbeid, 2022). Such atmosphere can be achieved through having attractive colors from floor to ceiling and cozy furniture (Lamers Zorg & Arbeid, 2022), natural flowers or plants (Adam, 2022), warm ambient lighting, and soundtracks of birds singing or chirping adjusted to 46-47 dB which have proven to evoke a feeling of calm and relaxation (Vanhatalo et al., 2022). In line with the previous statement and studies, the positive effect of canteen ambience is proven through a study in

Malaysian universities that reveals its significant relation to customer satisfaction. The study revealed that the decoration as well as the adequacy and placement of seats also contribute to keep the ambience of the canteen pleasant and cozy (Chang and Suki, 2018).

The same study also found that canteen staff's capability to provide good quality food and service is another important aspect that companies need to pay attention to. As regards service, the canteen staff friendliness, responsiveness, politeness, hygiene, and customer assurance are among the qualities that positively and significantly affect customer's satisfaction. These service qualities can make the workplace canteen as a place for workers to release stress. The study recommended that the canteen service should be an on-going improvement by gathering feedback from workers and training of canteen staff (Chang and Suki, 2018).

The price of the food sold in the office canteen is also important as workers usually put affordability and value for money into consideration when buying food. The food provided in the workplace canteen should be affordable and, at the same time, must be adequately portioned, taste good, and meet the nutritional needs of the workers. A study conducted in an academic workplace in Malaysia to analyze the relation between food quality and staff satisfaction proved that the price of food in the workplace canteen positively affects the workers satisfaction. The study concluded that the satisfaction level of customers was high due to the canteen's offering of enough food portions and adequate beverage size at a reasonable price for the workers.



## How Canteen Can Improve Employee Nutrition and Release Stress

This means the more affordable and fair valued the food is, the more likely the workers will be satisfied. A good dining experience in the workplace canteen can help workers to have a better mood and feel less stressed (Omar et al., 2021).

Implementing a healthy canteen in the workplace that offers nutritious foods and a place for relaxation of workers depends on several factors. These factors may include the attitude of the workers on the importance of balanced nutrition particularly their preference to taste over the nutritional contents of the food, variety and affordability of food options in the menu, capabilities of the canteen staff to provide quality service, physical set up, cost of maintaining the canteen operation, as well as competition from other food providers in the immediate surrounding of the workplace.

Although it could be challenging to maintain a healthy canteen in a workplace due to the factors mentioned above, its benefits in terms of improved health and productivity of employees and the organization could be worth the effort in the long run.



A canteen at the Workplace

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# Empowering Filipino Employees with Better Nutrition for a Healthier and Productive Workplace: The Case of the Social Security System of the Philippines

by Jemica M. Colasito Antipolo National High School, Philippines

Employees need proper nutrition to thrive in their professional as well as personal endeavors. Considering that most employees eat at least one meal in their workplaces, they need to understand that the food they consume can affect their work productivity and their overall health and well-being. By consuming the right kinds of food, they enable their bodies to get the essential nutrients they need to stay fit and help boost their immune system against infections and diseases.

A healthy workforce is one critical prime mover in ensuring the growth and success of any business or organization. In a fast-paced and competitive world, employees require enough energy to keep them going and remain productive. In the Philippines, various campaigns to promote a healthier lifestyle among the public, including those in the working sector, already exist.

The *Pinggang Pinoy* (Filipino Food Plate) campaign, jointly developed by the Food and Nutrition Research Institute of the Department of Health (DOH), World Health Organization (WHO), and National Nutrition Council (NNC), was officially launched in 2016. This comprehensive campaign serves as a visual food guide, offering tailored recommendations for different age groups, including children, adolescents, elderly individuals, and pregnant or lactating mothers. The main objective of this initiative is to encourage Filipinos to adopt healthy eating habits by consuming the right amount of food from various food groups during each meal, ultimately leading to a better nutrition and improved health outcomes (M dela Cuesta, 2018).

Several Philippine companies have also started implementing various nutrition education programs to educate their employees on the benefits of healthy eating habits and how to achieve a balanced diet (Aquino et al., 2019).

## Some Employees' Concerns

But still, unhealthy and unbalanced foods abound in most canteens of workplaces in the Philippines.

Employees of a call center company in Manila, for instance, reported that most of the food options served in their cafeteria were processed and lacked nutritional value. Thus, they usually resorted to purchasing their meals outside of their company which would require them to leave the office for long periods and eventually affect their productivity (Dela Paz, 2021).

The survey conducted by Salvador (2021) to assess employees' knowledge on proper nutrition at a pharmaceutical company in Cebu showed that over 50 percent of the workers demanded an introduction to proper nutrition. Despite this, the company did not offer any nutrition education program to help their workers improve their eating habits.

Another study found out that most of the employees of a manufacturing company in Laguna were not able to take their lunch breaks, while those who took their lunch considered the break time limited. This led to employees developing health issues such as gastritis and fatigue, which affected their work performance (Walford, 2022).

Furthermore, a survey conducted by the Philippine Food and Nutrition Institute in 2021 revealed that 59.7% of the employees at the manufacturing company in Laguna were affected by poor nutrition due to limited access to healthy food. While the study focused on this specific group of employees, it underscores the significance of employee awareness regarding proper nutrition and its impact on overall health and work productivity, which may be relevant to employees in various workplaces across the Philippines. Employees are encouraged to be mindful of their food choices, avoiding unhealthy options, and instead opting for a healthier homemade alternative (Raymundo et al., 2021).

## Roles of Employers

Promoting proper nutrition is a shared responsibility between employees and employers, as the latter plays a significant role in fostering a healthy workplace. The physical food

environment in a workplace heavily influences employees' eating habits (Raymundo et al., 2021). Research has shown that whatever food is available and easily obtainable, people will eat more of it (Wansink, 2004). Thus, employers can help improve the physical food environment of their workers by coming up with healthy and nutrition-friendly policies in relation to having pantries and canteens/cafeterias in their offices that only provide healthy food options (e.g., offering more fruits and vegetables, low-calorie drinks, fewer pastries, and sweets, etc.). It is ideal for canteens/cafeterias to provide information on the nutritional values of meals offered. Providing facilities such as refrigerators and water dispensers would be beneficial to employees to prepare and store healthy foods and drinks.

Furthermore, employers can organize workshops or seminars on nutrition and healthy eating habits. Bringing in nutrition experts or dietitians to educate employees about balanced diets, portion control, and the importance of consuming nutrient-rich foods can be beneficial.

To reinforce healthy eating habits, employers can also host wellness challenges or initiatives that encourage employees to make healthier food choices. This may involve keeping track of their daily food intake, setting nutrition-related goals, and rewarding positive behavior changes.

In addition to fitness programs, employers can consider incorporating nutrition-focused activities into workplace wellness programs. Cooking classes that teach employees how to prepare nutritious meals, recipe exchanges, or potluck events featuring healthy dishes can all contribute to fostering a culture of better nutrition within the workplace.

Moreover, telemedicine technologies can also be utilized to support employees in improving their eating habits. Digital therapeutics and mobile apps can offer personalized nutrition plans, dietary tracking, and healthy meal suggestions,

empowering employees to make informed choices about their diet. By addressing both fitness and nutrition aspects, employers can create a holistic and supportive environment that promotes the overall health and well-being of their employees, ultimately leading to a more productive and engaged workforce (Khalsa, 2016; Cruz-Ferreira et al., 2011; Strasser et al., 2010; WHO, 2023; Peck, 2019).

### The Case of the Philippine Social Security System

The Philippine Social Security System (SSS) has implemented workplace wellness programs that encompass fitness classes, health screenings, nutritional counseling, and health awareness campaigns.

To ensure the program's success, the SSS conducted a comprehensive needs assessment, collecting data through surveys, health screenings, and consultations with healthcare professionals. This approach allowed them to tailor the program to effectively address specific areas of improvement. Engaging employees was a top priority, and the SSS actively promoted the initiative across the organization using various communication channels such as emails, posters, bulletin boards, and internal newsletters. Regular updates and motivational messages kept employees interested and committed to their well-being journey.

Recognizing the importance of accessibility, the SSS invested in onsite facilities and resources, including fitness centers, designated spaces for fitness classes, health check-up stations, and

private rooms for nutritional counseling. These provisions made it convenient for employees to participate without leaving the workplace.

The involvement of health professionals, such as nutritionists, dietitians, fitness instructors, and medical practitioners, played a crucial role in the program's achievements. Their expertise and support provided personalized guidance and engaging fitness classes, ensuring employees received comprehensive support throughout their wellness journey.

The commitment to employee well-being is evident as the SSS views the program as an ongoing initiative, dedicating sufficient resources and personnel to ensure its continuity and seamless integration into the organization's culture and values.

To sustain the program's relevance, the SSS conducts regular surveys, focused group discussions, and feedback mechanisms with its employees. Data-driven decision making guides program improvements and resource allocation, ensuring its continued effectiveness over time. Cultivating a culture of health and wellness has been central to the program's sustainability.

### The "Fit for Filipino Movement"

The "Fit Filipino Movement" is a campaign by the Philippine National Nutrition Council (NNC) in 2021. It promotes physical activity and healthy lifestyle habits among Filipinos. The NNC conducts several community events to raise awareness of the general public about proper nutrition and exercise. The NNC recommends the following principles of proper nutrition: First, they suggested that employees should add fruits and vegetables to every meal as they provide natural vitamins and minerals to their bodies. Second, they should limit their sugar, salt, and processed food intake because it can lead to obesity, hypertension, and other related diseases. Third, they should drink enough water to help in the absorption of nutrients and, at the same time, elimination of toxins from the body. And lastly, choose lean proteins such as fish, legumes, and chicken.

Empowering employees with knowledge and skills on practicing proper nutrition habits can be both beneficial to them and to their employers towards creating a healthier workplace with a culture that values wellbeing and productivity for a long-term success.



*Nurturing Employee*

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### Indonesia's Initiatives to Ensure Workforce Well-Being

Between 2035 and 2045, Indonesia is expected to have a demographic bonus where 70 percent of the population will be of productive age, while the remaining 30 percent will be elderly and toddlers. To prepare for this, it is essential to ensure that the workforce is healthy and productive. Since 2013, however, there has been an increase in non-communicable diseases in Indonesia such as obesity, hypertension, diabetes, and anemia among female workers, which negatively impact on workers' productivity. Thus, the health and

nutritional status of employees has become a priority concern of the Government of Indonesia through its Ministry of Health (MoH). This article captures the views of dr. Nida Rohmawati, MPH, Director of Health for Productive Age and Elderly of MoH of Indonesia on how the government ensures the well-being of the country's workforce.



dr. Nida Rohmawati, MPH  
Director of Health for Productive Age and Elderly of Ministry of Health of Indonesia

#### What are the existing policies and programs that promote the implementation of balanced health and nutrition programs for employees in the workplace in Indonesia?

"The Indonesian government has implemented several policies to promote balanced nutrition programs for workers in the workplace. These include Law Number 36 of 2009, Presidential Instruction No. 1 of 2017, and Government Regulation No. 88 of 2019. Steps have also been taken to promote the implementation of these programs, such as conducting campaigns to promote balanced nutrition practices, partnering with various sectors to

empower communities, and establishing partnerships with universities and experts to develop worker nutrition guidelines."

"The Directorate of Health for Productive Age and Elderly, under the Ministry of Health Indonesia, oversees the implementation of programs such as the Productive Healthy Women Workers Movement (*Gerakan Pekerja Perempuan*

*Sehat Produktif/GP2SP*) and the Office of Occupational Safety and Health (*Keselamatan dan Kesehatan Kerja/K3*). The GP2SP program focuses on reproductive health, nutrition, environmental health, and breastfeeding. The K3 program, on the other hand, addresses clean living habits, physical activity, disease prevention, work environment and hygiene, office ergonomics, and disaster preparedness."

#### How does the government ensure that these programs are implemented well in various workplaces in the country?

"Every year on National Health Day, the Ministry of Health publicly expresses its appreciation to workplace partners, including offices and companies, for their commitment in implementing either the GP2SP or K3 programs. The Mitra Bakti Husada Award is presented to these partners in recognition of their efforts. To date, a total of 750 partners have been acknowledged for their contributions to GP2SP, with 115 of them

awarded the Mitra Bakti Husada until 2022. Regarding K3, coaching began in 2020 for 863 partners, and 33 of them have received the Mitra Bakti Husada award until 2022."

"The strategy involves engaging award-winning partners as experts to share their successful approaches to implementing GP2SP. For example, a manufacturing company that operates in

shifts provides round-the-clock childcare services, which benefits female employees who breastfeed by enabling them to feel at ease and not worry about exclusive breastfeeding. This company views the Ministry of Health award as prestigious and strives to uphold it, which enhances its reputation positively."



### What are the trends, challenges, and opportunities in implementing balanced nutrition practices in the workplace in Indonesia? including during or after the COVID-19 pandemic.

“The trend in promoting balanced nutrition practices in Indonesian workplaces is rising. This is due to strengthened regulations and policies, as well as the availability of human resources in occupational health and nutrition, and economic recovery. However, companies and offices that provide monetary allowances for meals pose a challenge to achieving balanced and optimal nutritional intake that supports workers' performance due to

budgetary constraints. Furthermore, workers require ongoing education to practice balanced nutrition in their daily diets.”

Nevertheless, opportunities for implementing balanced nutrition practices in the workplace are still vast. The COVID-19 pandemic has increased awareness among workers and companies/offices on health, primarily on maintaining body immunity. Further,

human resources in nutrition, such as graduates of health polytechnics, bachelor's degrees in nutrition or public health, and nutrition professionals, are now widespread in various workplaces in Indonesia. Therefore, we hope that balanced nutrition in the workplace will become a practice supported by various levels, from individual health workers and nutritionists to company management and government regulations in each district.”



The 2022 Mitra Bakti Husada Award

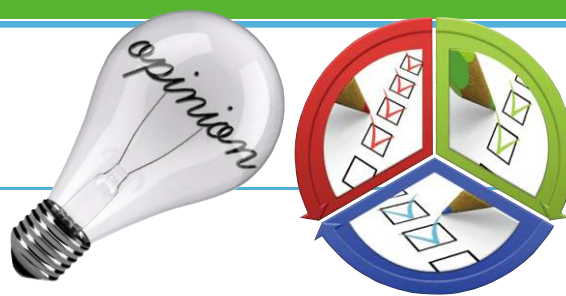


The Productive Healthy Women Workers Movement Poster

- 1 Law Number 36 of 2009 regulates the general provisions of health; the principles and objectives of health, rights and obligations of any person on health care; government's responsibility to provide health care; government's responsibility to provide resources in the health sector, efforts to realize the highest possible health for the community; health of mothers, infants, children, adolescents, elderly and disabled; mental health, infectious disease and not contagious, health and working environment; management, information and health financing; role of the community; body health considerations; guidance and supervision; investigation and sanctions for violation of health administration.
- 2 Presidential Instruction No. 1 of 2017 refers to t Gerakan Masyarakat Hidup Sehat (GERMAS) or Healthy Living Community Movement which is a systematic and planned action carried out jointly by all components of the nation with awareness, willingness and ability to behave healthily to improve the quality of life.
- 3 Government Regulation No. 88 of 2019 is about Occupational Health Regulation that aims to provide protection for workers and improve occupational health in an integrated, comprehensive, and sustainable manner.



## Opinion Survey



Most working adults spend about one-third of their day at work. This necessitates them to be in good health to maintain high levels of productivity and achieve both their professional and personal goals. To ensure that workers remain productive, practicing healthy and balanced nutrition eating habits and an active lifestyle is essential.

For the fourth issue of AWESOME Magazine, our team conducted an online survey to gather readers' opinions and ideas on appropriate ways to promote proper nutrition and healthy eating in the workplace. We selected 17 insightful responses from Southeast Asian readers to be featured in this issue.

Most of the responses emphasized the importance of a supportive workplace environment that includes providing healthier food options and visual reminders, such as posters, for maintaining a balanced diet. Others also mentioned the benefits of group activities such as workshops, physical activity sessions, and wellness programs that offer incentives/rewards.

“The cafeteria provides several healthy meal choices at a lower price than the regular menu. Moreover, posters and banners are displayed throughout the work area to encourage the significance of maintaining a nutritious diet.” **(HJ Salleh, Nutritionist, Brunei)**

“The workplace provides workshops and group training sessions, as well as meal services.” **(Win Lai Khine, Master Student, Thailand)**

“Posters can be an effective way to promote healthy eating in the workplace, especially by targeting adults, to reinforce their basic knowledge about nutrition.” **(Niane Sivongxay, Director, Lao PDR)**

“Conduct regular nutrition program in the workplace that gives several rewards for best practice.” **(Azizah Ajeng Pratiwi, Lecturer, Indonesia)**



“Encouraging employees to participate in voluntary health surveys to achieve wellness in the workplace is a simple yet effective approach. To take it a step further, organize educational campaigns and incentivize healthy eating habits. Group activities such as cooking sessions, lunch and learns, and afternoon walks can provide a fun and engaging way to raise awareness about proper nutrition. Offering rewards for achieving goals can serve as a powerful motivator, and recognizing individual and team accomplishments with special awards can make a significant difference.” **(Rommel P. Allado, Administrative Aide, Philippines)**



“An appropriate way to raise awareness and promote nutrition in the workplace is through nudges on immediate surroundings.” *(Nudges refer to a method of intervention that utilizes behavioral insights to predictably alter people's behavior by presenting choices differently to the individual using various forms, such as reminders, warnings, information disclosure, simplification, and automatic enrollment).* **(Renen Szilardo de Guzman, Assistant Professor, Philippines)**

Providing healthy and nourishing food options in the workplace, such as fresh fruits and baked nuts as snacks during meetings, instead of fried snacks, can encourage individuals to make healthier choices.” **(Pratiwi, Employee, Indonesia)**

“A good way to promote the significance of balanced nutrition in the workplace is by encouraging the habit of consuming nutritious food. This can be done by bringing home-cooked meals and organizing communal healthy eating activities to foster camaraderie among colleagues. Moreover, preparing healthy meals together using locally sourced ingredients available within the workplace can also be an engaging activity.” **(Asri Pujihastuti, Teacher, Indonesia)**

“Conduct a routine medical checkup for all employees to raise everyone's concerns about self-health condition” **(Dewi Puspita, Teacher, Indonesia)**

## Opinion Survey

"Habituation is important to increase awareness about healthy eating practices in the workplace. In our school, students are encouraged to bring their food from home so that nutrition and food hygiene can be guaranteed. Meanwhile, our school cafeteria ensures that food offered to students and teachers are safe and free from any harmful food preservatives such as borax or formalin. We also have a program called GEMAKAN on eating fish and vegetables that is conducted every 2 months. Posters about "My Plate" are displayed in strategic areas in our school, including in the UKS room and at the school information board." **(Chitra Arti Maharani, Teacher, Indonesia)**

"Providing regular messages via Whatsapp about the importance of a nutritious diet, for example, 2 to 3 times a week, will raise awareness of teachers. This can eventually lead them to sharing a daily healthy menu to colleagues without interfering with their teaching routines." **(Fajar Kusumoningrad, Teacher, Indonesia)**

"Conduct a seminar on proper nutrition and serve a brown bag containing healthy food that would correspond to the seminar's topic on good nutrition and diet. It's a good way of reinforcing the lectures." **(Nova Ramos, Head, Training for Development, Philippines)**

"... through education and training, as well as social media or mass media." **(Sosima R. Demandante, Associate Professor, Philippines)**

"Include an information campaign on Proper Nutrition in the Workplace in the University such as , actual or virtual exhibition." **(Eliza G. Villarin, Director, Philippines)**

"Issue a memo in an organization requiring all its employees to conduct and document proper healthy eating in their respective units at least once a month or quarterly." **(Richard F. Guinsatao, Administrative Aide, Philippines)**

"In my opinion, the most appropriate way to raise awareness about healthy eating is to integrate knowledge related to healthy eating into classroom learning activities. For example, in mathematics lessons, I often, together with students, compare the composition of sugar content in various snacks at school. With this knowledge, I hope that my students in the future can sort out which foods are healthy and contain less sugar for consumption. This is to teach them to live a healthy life more, especially to avoid diseases related to excess sugar intake that are now increasingly affecting children." **(Jefrianus Kolimo, Teacher, Indonesia)**





### Readers' Opinion Survey

Simply provide your comments (3-4 sentences) to the question

“

What do you think is the appropriate way to raise awareness on proper nutrition/healthy eating in the workplace?

”

through this link:

<https://bit.ly/opinion-awesome4>

The selected opinion will be published in our AWESOME Magazine's 4th issue this year! ;)

 [www.seameo-recfon.org](http://www.seameo-recfon.org)
 SEAMEO REC-FON
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Reader's Opinion Survey distributed through SEAMEO REC-FON's social media to gather readers' opinions and ideas on appropriate ways to promote proper nutrition and healthy eating in the workplace



# Existing Workplace Health and Nutrition Programs in Southeast Asian Countries

Southeast Asia is experiencing a rise in the implementation of health and nutrition programs in the workplace that involve various stakeholders, including the government, employers, and educational institutions. This section provides a snapshot of current programs in four Southeast Asian countries addressing the concern of improving overall workforce well-being.

## SINGAPORE

The Health Promotion Board (HPB), under Singapore's Ministry of Health, offers two excellent programs, the Workplace Outreach Wellness (WOW) Programme and the I Quit Programme. The WOW Program is designed to help private companies achieve a healthier, more engaged, and productive workforce by providing support on various topics such as physical health screening and health coaching. On the other hand, the I Quit Program is specifically created to help smokers/vapers quit by providing them with small, daily, actionable steps that help them maintain a nicotine-free lifestyle with knowledge, motivation, and support. These programs are highly commendable and can be considered as a way to promote healthy living in any workplace setting. More information <https://hpb.gov.sg/workplace>



## BRUNEI DARUSSALAM

The Workplace and Health (WAH) Programme is a collaborative effort between the country's Ministry of Health and Gleneagles JPMC Sdn Bhd to promote healthy habits and prevent noncommunicable diseases (NCDs) in the community.



Since its inception in 2019, WAH has encouraged workplaces to provide supportive environments that promote physical activity, healthy eating, smoking cessation, and good mental health.

The program aims to establish or enhance workplace health promotion programs in all government ministries, focusing on online courses, exercise sessions, and basic health screenings. The courses cover various topics, including nutrition, tobacco use, mental health, and physical activity in the workplace.

More Information <https://whp.gov.bn/>

## PHILIPPINES

Encouraging nutrition and healthy living in the workplace is crucial to promoting a healthier population in the Philippines. The National Nutrition Council (NNC) urges workplaces nationwide to prioritize a healthy lifestyle for their employees. The NNC recommends various methods to achieve this, including offering healthier food choices in cafeterias or canteens and serving nutritious snacks during meetings or other events. It is also highly recommended to hold seminars and lectures to educate employees about healthy diets. More information <https://www.nnc.gov.ph/regional-offices/visayas/region-viii-eastern-visayas/2216-nutrition-in-the-workplace-a-must>



## MALAYSIA

Malaysia's Ministry of Health Nutrition Division has launched the *Kafetaria Sihat* or The Healthy Cafeteria initiative, which over 162 canteens have participated in since 2012. The International Medical University Malaysia (IMU) was the first university to join the program in 2017, with its canteen now certified as a Healthy Cafeteria and meeting the food safety standards set by the Ministry. The initiative aims to promote a healthy work environment, empowering individuals to make informed dietary choices by providing healthier food options at the canteen while working long hours.

More information <https://www.imu.edu.my/imunews/imu-counters-sedentary-workforce-with-corporate-wellness-initiatives/>





### SEAMEO RECFON Hosts 1st Regional Learning Exchange Forum on School-Based Nutrition Promotion

SEAMEO RECFON held the first regional learning exchange forum on School-Based Nutrition Promotion (SBNP) on 24 October 2022. The forum featured five esteemed speakers from Indonesia, Malaysia, and the Philippines, who shared their expertise on policies and programs that promote nutrition literacy in school children and adolescents.

Dr. Helda Khusun, one of SEAMEO RECFON's program expert, presented the results of 28 studies conducted over the past five years on various nutrition education strategies implemented in Southeast Asian schools. The other speakers included Ms. Lailatul Machfudhotin from Indonesia's Ministry of Education, Dr. Airin Roshita from UNICEF Indonesia, Ms. Siti Adibah binti Ab Halim from the Ministry of Health in Malaysia, and Dr. Rowell Capistrano from the Department of Education

of the Philippines. They discussed their respective programs and initiatives implemented successfully in their countries. The speakers emphasized the importance of implementing nutrition education interventions to meet school children and adolescents' nutritional and socioeconomic needs. They also highlighted the need for coordination between government and non-government institutions engaged in SBNP program implementation. Furthermore, they stressed the importance of having a functional monitoring and evaluation system to track the progress and impacts of SBNP programs.

The forum was attended by 63 participants through Zoom platform and was viewed by 642 individuals via Youtube

### Indonesia ECCNE Working Group Workshop Tackles Integration of Dietary Survey Activities and Measurement of ECCNE Indicators among Academic Institutions

The Early Childhood Care, Nutrition, and Education (ECCNE) Indonesia Working Group conducted an online workshop on 11 April 2023 focused on incorporating dietary surveys from academic institutions that involved students and measuring ECCNE indicators. The workshop resulted in establishing a task force to create an action plan and standards for collecting and analyzing dietary intake data.

During the workshop, Mrs. Indah Yuliana of Sriwijaya University's Faculty of Public Health presented about integrating an ECCNE baseline study into the community internship of their undergraduate students. Mr. Joko Susilo, Chairman of the Indonesian Nutrition Vocational Education Association (AIPVOGI), spoke about the potential of vocational students to collect dietary intake data as part of their

community internship. The data collected can help formulate local, specific food-based recommendations.

SEAMEO RECFON ECCNE Program Coordinator Dr. Umi Fahmida shared the progress of the ECCNE program from October 2022 to March 2023. It included the launching of the book on "Best Practices of ECCNE Program Implementation," conducting ECCNE in daycare settings, validating child development monitoring tools, ECCNE training, program monitoring, program evaluation, and launching of the 2023 ECCNE Awards.

The virtual workshop was attended by 150 participants from the health polytechnic institutions, universities, and local government offices, including the 75 members of the Indonesia ECCNE Working Group.

### SEAMEO RECFON Acknowledges 23 Schools in Institutionalization Phase of NGTS Program in Indonesia

SEAMEO RECFON recognized 23 schools for having reached the institutionalization phase of implementing their respective Nutrition Goes To School (NGTS) programs. These schools consisted of 8 elementary schools, 7 junior high schools, and 8 senior high schools from the six NGTS program sites in Indonesia, namely: Bogor, Cimahi, Cirebon, Klaten, Malang, and Sambas.

The recognition was held on 21 September 2023 as a post activity during the Centre's 13<sup>th</sup> Governing Board Meeting via virtual mode. The schools were presented with their certificates of excellence signed by the Acting Director of SEAMEO RECFON, Director of Vocational Secondary School and Secretary of the Directorate General of Early Childhood,

Primary, and Secondary Education from the Ministry of Education, Culture, Research and Technology for those in the junior and senior high school level, and Acting Director of Curriculum, Facility, Institutional, and Student Affairs from the Ministry of Religious Affairs for those in primary and secondary madrasah level.

Currently, the NGTS Program in Indonesia involves 2,234 schools that are in the socialization phase, 918 schools in the orientation phase, and 65 schools in the strengthening phase.

Being in the institutionalization phase, the schools are expected to advocate the NGTS program to other schools in their respective areas.



## Primary and Secondary Schools in Sambas District Conducts NGTS Events to Promote Nutritious Traditional Local Foods

The School Community for Nutrition of Subah Sub-District, Sambas District, West Kalimantan Province, organized a Nutrition Goes to School (NGTS) event called "Gebyar NGTS" on May 23, 2023. The event consisted of various activities such as NGTS Aerobic Exercise, Nutrition Ambassador Competition among elementary schools, Local Culinary Exhibition featuring traditional foods, snacks, and porridges from Sambas, and a Food Bazaar.

The School Community for Nutrition of Subah Sub-District is a collaborative effort initiated by the school principal of Satai D Elementary School 7 in 2021. The five member schools are Satai D Elementary School 7, Sungai Enau Mejo Elementary School 19, Sabung Stanggak Elementary School 8, S Talenta Sungai Kajang Elementary School, and Trans Sabung Elementary School 14. The community recognizes the

importance of NGTS in support of Indonesia's national school health program. Thus, the community organizes yearly collaborative activities related to NGTS since attending the Training on School Children Nutrition conducted by the Education and Culture Office of Sambas District, SEAMEO RECFON, and Poltekkes Pontianak in 2021.

On June 8, 2023, Selakau Junior High School 4 organized an event called "Giat Gelar Karya" with the theme "My Spicy Porridge, My Traditional Food". The event encouraged students to showcase their creativity by preparing and selling traditional, nutrient-rich foods. The aim was to educate them on the importance of balanced nutrition from local food sources. This initiative is part of a larger project aimed at promoting the values of Pancasila and improving the overall health and nutritional status of students, which could ultimately lead to better academic outcomes.

## 12 Schools in Klaten District Receive Training on Preventing School-Based NCDs Through the School Wellness Program

Recognizing the important role of school teachers in promoting healthy behaviors among children, parents, and communities, SEAMEO RECFON, in partnership with the Health Polytechnic Institute of the Ministry of Health (Poltekkes) of Yogyakarta, the Education Office, and the Health Office of Klaten District, conducted a training on Non-Communicable Disease (NCD) monitoring procedures for 36 school teachers from 12 elementary schools in Klaten District on 7 July 2023.

The training was carried out through the School Wellness Program (SWeP) that was recently formed by the partnership which is a community health initiative aimed at changing

members' behaviors, especially those that are considered risk factors for NCDs. The training was a part of implementing the first pillar of primary health care transformation in the said district. All trained teachers and elementary school employees now have access to PTM early detection services.

The schools that participated in the training had also undergone the training on Nutrition Goes to School (NGTs) program in 2019.

## SEAMEO RECFON and BKKBN Recognize Three Districts in Accelerating Stunting Reduction in Indonesia

To increase the motivation of local governments and academic partners on their efforts to reduce stunting prevalence at the district/city level, SEAMEO RECFON and Indonesia's National Population and Family Planning Agency (BKKBN) cited Brebes, Bangka, and East Lombok Districts as the winners of the initial Early Childhood Care, Nutrition, and Education (ECCNE) Awards for 2023.

The winning districts bested 13 other districts that participated in the selection process, namely: East Aceh, North Bengkulu, Bolaang Mongondow, Kediri, North Konawe, Luwu, West Manggarai, Maros, Ogan Ilir, Pekalongan, Sambas, Sampang, and Solok. Kediri, Maros, and Solok Districts made it to the final selection round.

The ECCNE Awards 2023 jury was composed of representatives of BKKBN, Ministry of Health, Ministry of Education, Culture, Research, and Technology, SEAMEO RECFON, and the Global Alliance for Improved Nutrition. Judging criteria included multisectoral engagement and coordination, innovative policies and programs, program evidence and impact, and program sustainability.

The awarding ceremony was held during the opening program for SEAMEO RECFON's 13th Governing Board Meeting (GBM) on September 19, 2023. The ECCNE Awards is expected to be a bi-annual event of SEAMEO RECFON.



## Reference Book on Healthy School Canteen Policies, Programs, and Best Practices in Southeast Asia



SEAMEO RECFON collaborated with five other SEAMEO Centres to publish a reference book on healthy school canteen.

The book was produced through interviews and focused group discussions with key informants from 24 selected schools and relevant national government institutions involved in school health and nutrition in Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, and the Philippines. The book contains the geographic and socio-demographic profile, educational system, malnutrition problems, and eating habits

of school-aged children and adolescents, existing policies, programs and best practices in implementing healthy school canteens in the said countries.

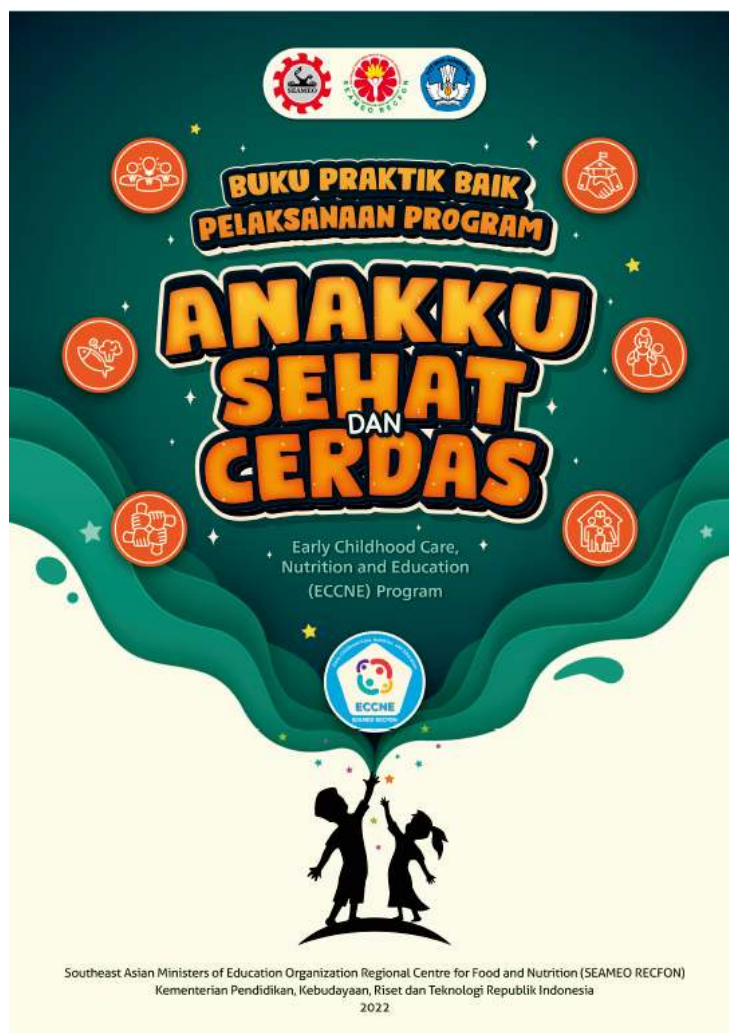
The book is expected to inspire interest and commitment from other schools in Southeast Asia to operate a healthy school canteen and provide a healthy food environment for their respective school communities.

The books are available at SEAMEO RECFON's website: <http://www.seameorecfon.org/publications/books/>.



### Now Available:

## Reference Book on Best Practices in Early Childhood Care, Nutrition, and Education (ECCNE) Program Implementation in Indonesia



From the experiences of local government partners in Tanjung Jabung District in Jambi Province and East Lombok District in Nusa Tenggara Barat Province in implementing the ECCNE Program for the past three years, SEAMEO REC FON had compiled their best practices into a reference book.

The best practices contained in the book were gathered through focused group discussions with local government officials, academic partners, ECCNE master trainers, early childhood education teachers, and parents in the program sites.

The book also contains SEAMEO REC FON's efforts to promote a holistic and integrative approach to early childhood care and education, with emphasis on parenting and nutrition education through local food-based complementary feeding recommendations (PGS-PL).

The book, in Indonesian language version, can be accessed through SEAMEO REC FON's website: <http://www.seameo-recfon.org/publications/books/>.

### Now Available:

#### Reference Books on Best Practices on Nutrition Goes to School (NGTS) Program Implementation in Indonesia



SEAMEO RECFA has released three reference books showcasing the best practices of 12 primary, 12 junior high, and 14 senior high schools in implementing the Nutrition Goes to School Program (NGTS) in Indonesia. The best practices are classified into four categories: nutrition education, healthy school canteen, school garden, and nutrition and entrepreneurship.

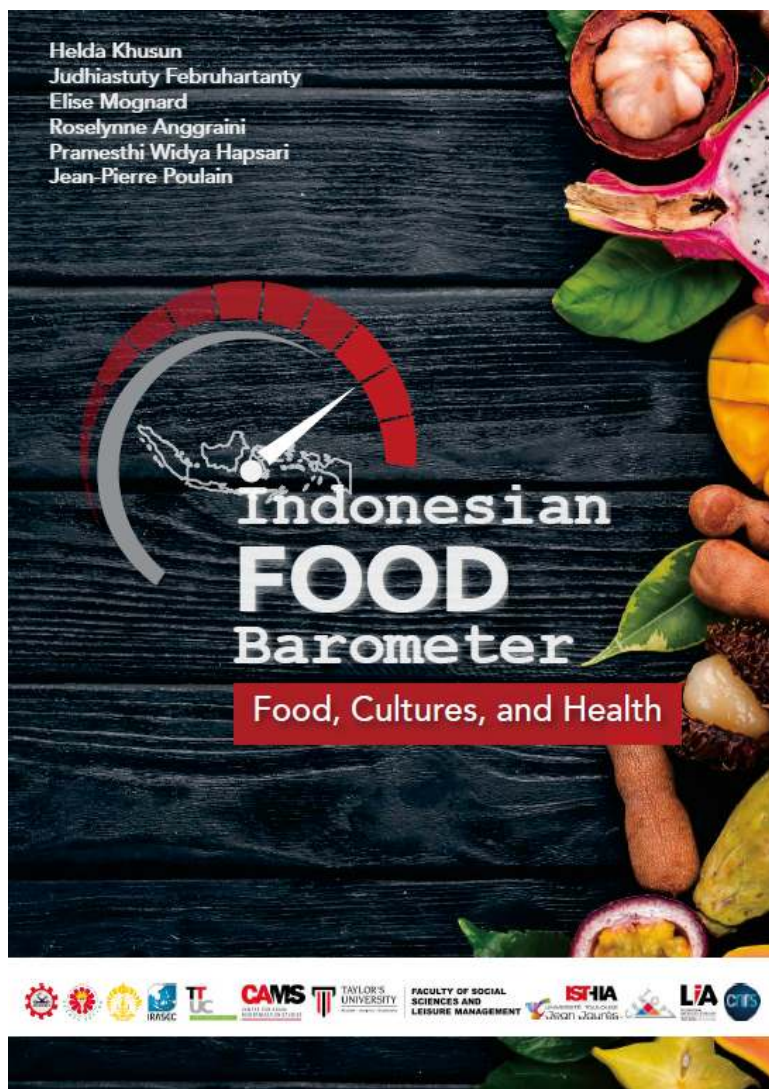
The schools featured in the books are those in the NGTS

program sites in Bogor District and City, Cimahi City, Cirebon City, Jakarta City, Klaten District, Malang District, and Sambas District as well as those outside the program sites such as Gunung Sitoli City, Sragen District, Sukabumi City, Bojonegoro District, Pati District, Tegal District, and Pasuruan District.

The books are available in Indonesian and English language versions at SEAMEO RECFA's website: <http://www.seameo-recfa.org/publications/books/>.



#### Indonesian Food Barometer



SEAMEO REC-FON, in collaboration with experts from Taylor's Toulouse University Centre, led by renowned Prof Jean-Pierre Poulain, has released a groundbreaking report on Indonesian dietary habits. The report is a vital step towards bridging the gap between the food habits of the population and the national nutritional recommendations, offering a comprehensive understanding of Indonesia's complex multicultural food and eating practices. Combining the tools and interpretations used in nutrition and sociology, the report's major revelations of Indonesian dietary behaviors are impressive.

The report will benefit many concerned parties, and periodic assessments will be conducted to monitor future improvement trends. This report is expected to stimulate further interdisciplinary discussion, aiming to propose relevant food and nutrition policy actions in the Southeast Asian region for the ultimate well-being of its population.

The report is accessible through the Centre's website: <http://www.seameo-recfon.org/publications/books/>.

## Our Services



### Biochemical Assessment

Zinc\* (300uL) | Vitamin A\* (40uL) | Vitamin E\* (40uL) | Beta carotene\* (40uL) | Vitamin D-25OH\* (450uL) | Vitamin C (300uL) | Ferritin (450uL) | Hematologic profile\*\* (3mL)  
The numbers above are the minimum volume of sample needed for analysis. \*\* Whole blood, while the others are serum/plasma



### Dietary Assessment

1. Interview and Analysis on Food Frequency Questionnaire (FFQ), Semiquantitative Food Frequency Questionnaire (SQFFQ) and 24-h Food Recall.
2. Analysis on standard nutrients, additional nutrients, additional food intake by food group/ sub group/ food intake.



### Genetic Assessment

SNP Detection | Gene Expression Analysis



### Food Analysis

Borax\* | Formaldehyde# | Nitrate-Nitrites\* Rhodamine# | Methanil Yellow\* | Cycamate\* | Mercury # | Escherichia Coli | Total Coliform | Physic  
\*Semi Quantitative; # Qualitative



### Freeze Dry Services

Primary applications of freeze drying include biological (e.g. bacteria and yeasts), biomedical (e.g. surgical transplants) and food processing (e.g. coffee). The quality of the product is excellent and nutritional content generally remain unchanged.



### Anthropometry and Body Composition Assessment

- Anthropometric measurements (Weight, Height, Length, & mid-upper arm circumference)  
- Body composition assessment (Skin folds & Bioelectrical Impedance Analysis (BIA))

## SEAMEO RECFON LABORATORY



Southeast Asian Ministers of Education  
Regional Centre for Food and Nutrition

## Assessment Packages

### Risk of Metabolic Syndrome

- Complete Blood Count
- Blood Glucose
- Blood Cholesterol
- Blood Uric Acid
- Bioelectrical Impedance analysis
- Blood pressure

### Risk of Anemia

- Complete Blood Count
- Ferritin
- Zinc
- HsCRP
- Dietary Assessment

### Oxidative Stress

- Vitamin A
- Betacaroten
- Vitamin C
- Vitamin E
- Dietary Assessment

### Vitamin D Deficiency

- Vitamin D
- Dietary Assessment

### Healthy Canteen

- Chemical Contaminations:
- Borax
  - Formaldehyde
  - Nitrates - Nitrites
  - Rhodamine
  - Methanil Yellow
  - Cycamate
- Microbiological Contaminations:
- Total Coliform
  - E - coli
  - Staphylococcus
- Healthy Canteen Checklist



\*Accredited by



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## About Us

SEAMEO RECFON Laboratory aims to support research in food and nutrition by providing biochemical assessment, dietary assessment, anthropometry assessment, food analysis, genetic analysis, freeze dry services and panel of laboratory tests. Accredited by ISO/IEC 17025:2017, the laboratory committed to assure quality and serve the best for you.

## Contact Us

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<http://seameo-recfon.org/laboratory-services>



Scan here

## Our Facilities



HPLC Waters Alliance E2695



AAS GBC 932AA



Hematology Analyzer



Chemiluminescence immunoassay (CLIA) Analyzer



StepOne™ Real-Time PCR System



MaestroNano Pro, Micro-volume Spectrophotometer



BIA Analyzer



Freeze Dryer

## Other Equipments



Hemocue 201



Shorrboard (Shorr)



Body Weighing Scale (Seca 876)



Microtoise



Food Model



Measuring Tape (Seca 201)



Knee Height Caliper (Shorr)



Baby Length Board



Skinfold Caliper (Holtain)



Food Weighing Scale (Tanita KD-160)





