Report on the WHO/FAO Inter-Regional Meeting to Promote Healthy Diets through the Informal Food Sector.

20th – 22nd August 2019, Bangkok, Thailand

An invite was extended to FSSAI, MoHFW to participate in the inter-regional meeting by WHO/FAO to promote healthy diets through the informal food sector at Bangkok from 20th to 22nd August, 2019. Ms Rohini Saran (DL, FFRC) represented FSSAI and the work done under various initiatives.

Background & Objectives

The inter-regional meeting aimed at extended food safety and nutrition through the informal food sector. The list of participants who attended the meeting is placed at *Annexure 1*.



The objectives of the workshop were to look into action areas along with experts who have done considerable amount of work in the sector. The three-day discussions were focused on deliberations towards considering urban and rural environments in terms of healthier street foods keeping in mind the legal frameworks. The objectives and the agenda are placed at *Annexure 2.*

DAY 1

Session 1: Opening and Introduction

Dr Angela de Silva, welcomed all the participants and mentioned how critical targeting the



informal sector for food safety and nutrition is. As majority of the people derive their diets through this channel, it is imperative that the diets provided through this sector are addressed. She mentioned that through this meeting, practical options towards doing work through the various best practices and experiences of different countries will be helpful

in exploring the nutrition status of various countries. She also delivered the message of the Regional Director's message to the audience. The detailed presentation is placed at *Annexure 3.*

Session 2: Regional Overview

In the second session, Dr Julia, WHO-WPRO, mentioned that the informal food sectors play a critical role in food environment. She said that the focus historically has been on food safety and not so much on the nutrition aspect. The nutritional quality of the street foods has been sub optimal as they are low cost. Involving actors who play key role of good legislation backed by good policy is needed to promote healthier diets. She also mentioned that there is no guideline that exists and we need to get more evidence first. As 68 percent of the employed population are in the informal sector, informal groups are often disinterested in the setting up legal establishments as they are not part of any legal systems. Street foods are part of tourist attraction and provide food security to all sections of poor and the white collar. She informed that Cambodia has just started to reduce sugar and researching on how the food can remain tasty and cheap.

She also mentioned that WHO-WPRO has started to work on studies pertaining to urban food security by undertaking a major survey in 100 cities in the world on how countries are dealing with the influx of population in the city and what would be needed by the countries. She stated that collaboration with UN agencies is underway to understand the situation and form policies to explore how the countries can deal with this in a cohesive manner. The detailed presentation is placed at *Annexure 4.*

Dr Warren Lee, Senior Nutrition Officer (FAO), mentioned that it is a good opportunity for the FAO to improve the quality of food delivered through the informal food sector. He stated that a great deal of people often migrate from rural to urban which foresees nearly 5 million people with the size of over units and this influx of the has created a pressure in cities to provide safe and nutritious food to its inhabitants. Along with this, there is an increase in incidence of overweight and obesity in the cities. He mentioned that Stunting has increased a great deal as well. As a lot of people coming to the cities are from the low socio-economic class, they often rely on street foods. He mentioned that in Bangkok/ Thailand alone, street food accounts for about 40 per cent of caloric intake, which is a significant source of meals through the informal sector. He emphasised that it is time that WHO and FAO must focus on how to improve the food delivery through the informal food sector by cross learnings with various countries and looking at experience, research which can add to the existing knowledge. He reiterated that urban environment and food security must be studied and concerns like cost of fresh food and its implications on the vendors must also be studied. Considering the coordination between the public health authority, vendor associations, suppliers etc. must also be considered. He suggested that a food-based approach to healthy diets must be undertaken which will lead to nutritious diets. This will bring forth nutrition sensitive food consumption data and the nutritional education status of people as in the last 30 years, the medical approach like diet supplements, fortification and diversity has not provided sufficient micronutrients. Quoting the Lancet series 2013, he said that all these nutrition specific action can only deal with 30 percent – 80 percent nutrition sensitive action. However, where the food comes from, what food safety and other aspects are needed are often missing. Therefore, in the new SGDs second goal there is considerable emphasis on sustainable culture to improve the food supply and improve consumption of nutritious food. The detailed presentation is placed at *Annexure 5*.

Dr Angela de Silva, WHO SEARO, mentioned that we need to cover overall aspects of food, therefore, this meeting will explore the information available, who will implement the areas of policies and what is needed to consider the legislations at the local government levels. She stated that practices like promoting local zoning etc. may need compulsory trainings and additional burden on the food safety/Health departments of the countries. She also mentioned that excess salt acts as a preservative and alternatives must be sought. The critical aspect of any programme is sustainability, and understanding consumer preferences. The most obvious solution is to piggy back on the existing programmes also keeping in mind the constraints and the opposition to acceptability of healthier diets. The challenge is to look into menu options that are healthier, cost-effective thereby sustainable. She mentioned that via the legislation we also need to counteract the advertisement and marketing strategy towards promotion of unhealthy foods.

Dr Angela emphasized that the supply chain is very important including the roles of Ministry of Culture, Health etc. where it is produced and consumed may be categorized through the food system's approach and not just the price and the income. It must include food security and nutrition impact and not just for shedding light on its interdependence. By looking at these systems we can identify which areas can be used as entry points for interventions. She said that the food system approach helps in the health to not only look at the ecosystem but to tackle the problem of malnutrition at large by relying on the link to the health systems, breastfeeding practices and also the need for social protection of low social economic group and the vulnerable groups.

She elaborated that the challenges of food system are many. The supply of the food chain is shorter, storage situation and price affect the choices. Supermarkets are the new environment for people to adapt. Food marketing influence the people to opt for ultra-processed food due to availability. In the cities, most people with low income rely on street food. Street foods are low-cost and convenient therefore they are very popular. The need for an acoustic engagement for better planning for food supplies is needed and investment towards integration of informal food sector in the food system is necessary. This will also promote the poor households to plan and support choosing healthy diets. She quoted the example of Indonesia, where majority of the population moved from rural to urban areas. That provided them with an employment opportunity and sustenance for the other migrants.

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She further mentioned that the goal of this workshop is to look at models and how other countries have taken lead in promotion of healthy diets through their informal sector.

Session 3: Country experiences, good practices and lessons learned

Experiences from region: Healthy diets in informal food sector in Singapore: Good Practices and lessons learned.

Ms Ann Low from the Health Promotion Board, Singapore mentioned that the idea is to develop programs to cater to uniqueness of each food setting. She shared that Singapore has Hawker Centres, where there are 50 - 100 stalls and every stall is an independent food centres. Government of Singapore has relocated 114 hawker centres around the country and Coffee Shops are typically under the public housing apartments which are government subsidized. There are other eateries and also family owned businesses. She mentioned that a targeted approach is needed. Singapore adopted the Eco-systemic approach two years ago, where both the demand side and supply including the retailers and different programs targeting health were identified. In order to reduce the calorie intake of the population and improve the diet quality, various food and beverage services were studied. It came to the notice that there was in general an excess of 300 calories by the population and the diet quality primarily comprised of carbohydrates, lacking in micronutrients and rich in saturated fats. She mentioned that key stakeholders like department that gave food license targeted the landlords of the businesses. Hawkers were advocated to provide healthier menu options. Another approach that was taken was the licence pendency approach. The restaurants providing food under the subsidized homes had to go through tender process where the food operator had to bid for the place. If the menu of the provider was healthier, that would entitle them for higher points in the bid. Further, different institutes were encouraged to research the healthier version of foods by reformulation.

Ms Low shared that the entire food supply chain was worked upon starting from raw ingredients and then to upstream with the food manufacturers. She also mentioned that the sugar, salt and fat content of rice noodles, sauces, ketchups etc. was also looked into. Carriers of high sugar etc. manufacturers were encouraged to regulate their recipes. Promoting consumption of brown rice with low GI instead of white rice was strengthened. Healthier version of noodles was released. They played games like spin the wheel in the hawkers

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centres as on-ground promotion activities especially targeting iconic hawker centres as they are known for tasty and nutritious food. This helped in generating footfall at the stall. The press attention was also provided to these particular centres, which promotes healthy eating behaviour. Busting the myth that healthy food is expensive was narrowed in on, and the low calorie (under 500 kcals), cost effective menu items were identified and given publicity. Beverage shops with low calorie drinks was also identified. The hawkers reported an increase in their sales as well. This led to a boost in the confidence of food manufacturers and other vendors soon joined in. She also mentioned that a logo must be identified and promoted for the identity of any program by the government. The program is now looking to expand to processed foods. The detailed presentation is placed at *Annexure 6*.

Country Presentations

The session began with the country presentations and the current status, programs, and proposed next steps.

Bangladesh: The representative mentioned that visible activities around food production catering and transport are ongoing. Around 18 – 334 local government bodies are working together along with major ministries. Under the food ministry, the coordinating body is the Bangladesh Food Safety Authority. They are currently working on adaptation of nutrition labelling at the country level, setting up a network of food safety labs, collecting data etc. They have started the "*Kamola cart*" which is an orange coloured cart identified as the local food vendor. 600 of these carts were distributed in Dhaka and Phulan after the vendors were trained on food safety. The detailed presentation is placed at *Annexure 7*.

Cambodia: Ministry of Commerce is the leading body overlooking the informal food sector. They provide a certificate of good hygiene practices and provide training to the vendors including the testing of the street food samples. The detailed presentation is placed at *Annexure 8.*

India: The various initiatives and steps undertaken by FSSAI were shared with the audience. The role of FSSAI as an enabler was stated with special emphasis on initiatives like Street Food Hubs, FOSTAC, Hygiene Rating, RUCO, Swastha Bharat Yatra, Eat Right Melas and the Eat Right India movement. The cluster approach was explained in detail for the informal sector and linkages within the programmes was elaborated. It was shared that through the PPP model, the food safety department has been leading change in the country. Involvement of all sectors to drive change was discussed. The best practice of involving celebrities to engage and reach out to people was also discussed. The detailed presentation is placed at *Annexure 9*.

Indonesia: The representative mentioned that there are a lot of street food vendors. The country has adopted a centralized system and has conducted many activities like assessment of hygiene and sanitation, food sampling, adulteration tests, building capacity of street food vendors. They have adopted the reward and punishment system and gave stickers to the vendors with high sugar content and operationalized the policies. The detailed presentation is placed at *Annexure 10.*

Malaysia: It was shared that the law depends on the capacity of the local authority. Under the Ministry of Health, hygiene regulations are there and the vendors need to register online on a yearly basis. Joint operation and promotion is carried out to ensure that nutritious food is available. It was mentioned that in 2013 alone, there were 6000 free consultations provided to the vendors. The country has come out with various videos which urge the employees to take short breaks and do stretching exercises. The detailed presentation is placed at *Annexure* **11.**

Mongolia: The representative apprised that under the current food safety department, the country has taken up certain action. There are laws in place for Infant and Young Children, mandatory law on Food Fortification, a National Nutrition program however, no set policy is present for the informal food sector. The detailed presentation is placed at *Annexure 12*.

Experiences from region: Healthy diets in informal food sector in Hong Kong: Good Practices and lessons learned.

Mr Mandy Kwan from Central Health Education Unit, Centre for Health Protection, Department of Health shared that there is an Eat Smart Mobile App – which has the details of the Eat Smart Restaurants (ESR) (restaurant/eatsmart/gov.il). It was shared that a star rating system was introduced in the country. For a one star Eat Smart Restaurant, at least five dishes with more fruits and vegetables on a daily basis must be present. For Two-Stars, the restaurant must offer at least five dishes with more fruits and vegetables or with promote eat smart. For a Three-Star Restaurant, at least five dishes with more fruits and vegetables, and 3 less dishes and eat right promotion on a daily basis must be there. The country is providing ongoing support by briefing session of about two hours disseminating nutrition knowledge to enhance the skills and as part of the quality assurance to check the compliance before any renewal of license of the restaurants. She mentioned that the campaign ran for 8 years and an evaluation was done, areas of enhancement were identified. This gave an opportunity to the restaurants to bring business and patrons. Celebrity endorsement was also undertaken along with price promotion special offers to encourage the consumer to opt for healthier options. The detailed presentation, guidebook and resource material is placed at *Annexure* **13**.

Street Foods and Healthy Diets, a review of available information from Asia.

Professor Pulani Lanerolle, Faculty of Medicine, University of Colombo, Sri Lanka, presented the dynamic side of diets in response to urban development and demographic transition. She shared that the traditional foods, global and mixed diets provide an opportunity for us to change the nutrition platform. She detailed on the PubMed research and shared that there were only 19 studies which looked at nutrients in some way or another. These studies predominantly used questionnaires, especially in India, and focused mainly on adolescents. Working groups, local groups often ignore the quality of the food and the ingredients. Both formal and informal sectors need to be captured to strike a balance between food safety and nutrients that are provided through these diets. She shared that there are limited studies on micronutrients, high fat diets etc. and there is growing need to think of incentives and subsidies for better quality raw materials in the informal food sector supply for sustainability. The detailed presentation is placed at *Annexure* 14.

Session 4: Linkages and/or integration with other sector or programmes or initiatives

Thailand: The country shared its experience of the Clean Food, Good Taste project where the aim was to ensure healthier menus. A coliform text kit was prepared to test for food safety and an elaborate food sampling method was formulated. The representative shared that the street food management model was adopted which emphasized the standard requirements with central markets and the supplies in the big markets. As the rural markets sold the produce directly, the challenge was to address the issue of health and nutrition in these markets. A sustainable conceptual framework was shared through which the programme is being currently implemented. The detailed presentation and guide is placed at *Annexure 15.*

Sri Lanka: The representative mentioned that a half a day basic food training is done for the officers where topics of health and nutrition are added. The challenge is addressing the home caterers, or people who cook at home and then bring it to the streets. There is no mechanism to tap the food safety and the nutrient content in that sector. As the food is reheated or sold directly, there is a high chance of food poisoning. There is also a challenge in bringing food delivery personnel on board. However, the country has begun implementation of colour coding system in the schools and also begun the sugar tax. The detailed presentation is placed at *Annexure 16.*

Vietnam: The representative shared that the country under the Food Safety Law, has provided for guidelines for the vendors. There is a certificate for the training attended by the vendor and must have a certificate for eligibility of health. Periodic checks and engagement of all relevant stakeholders is a must. The detailed presentation is placed at *Annexure 17*.

Philippines: The country has begun mandatory fortification; salt is being fortified with lodine. There is also voluntary fortification for snack foods which has the Saenoi Seal. Rice is fortified with Vitamin A, Iron and Iodine and wheat flour with Iron and Vitamin A, oil with Vitamin A. She further shared the experience in Sebo, where 17 regions together have a lot of food handlers. It was informed that a caloric counter is underway and food safety guidelines are in place to protect the people. Home based catering services are a challenge as they are not trained to produce nutritious foods and to prepare a quality report. The detailed presentation is placed at *Annexure 18.*

Day 2

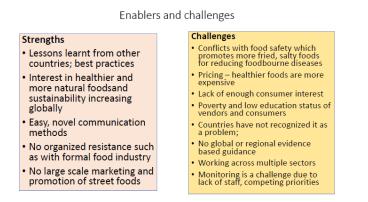
Recap

The day started with recap of the previous day. The following points were discussed. Overall principles to promote healthier diets:

- 1. Policy environment: enabling policies include legal and regulatory aspects
- 2. Data: Use data to develop policies and plan interventions; costing a healthier formulation, popular street foods, identify base ingredients, mapping of informal food service landscape
- 3. Coordination: across multiple sectors to plan, implement and monitor

- Incentivize, facilitate and recognize/reward: Facilitation of processes including technical support for recipes, communication to improve knowledge and attitudes of vendors and consumers
- 5. Use existing programmes; all countries have some ongoing initiatives to build onmore sustainable
- 6. Connectivity between formal and informal sectors: areas must be recognized- raw materials (e.g. noodles; beverages etc. So PPP is important)
- 7. Participatory process: consult and involve vendors' associations and other stakeholders
- 8. New technologies and communication: new methods to be recognized and utilized
- 9. Simple, practical and pragmatic. Promote overall healthfulness through focus on few key elements or ingredients; Key principle should be healthier rather than healthy
- 10. Start small; pilot settings e.g. focus on settings (govt. cafeterias, school vending stalls)
- 11. Monitoring the implementation process and evaluating outcomes is essential
- 12. New methods of vending: should be recognized and addressed- home cooked or vendor prepared and sold through apps, Fb etc.
- 13. Contextual: Actions would be city or region specific Cultural does not always mean healthy– change could be promoted

Supply - Identify and reformulate raw materials -single foods or food ingredients; rice, sauces,	Interventions Meal production	Demand • Educate consumers using innovative ways, aligned with new	Implementation pathways	
 Increase connectivity and supply of fresh raw materials such as fruit and veg through fiscal and other policies Facilitate fuel supply, cooking equipment, stalls, carts etc Educate and facilitate use of new technologies, recipe reformulation, Indicate and provide strong support from govt including incentives to draw in business Keep labelling practices simple; to encourage healthier food choices and point of purchase 	 Focus on one or two key elements (country specific) in the base product (rice) or ingredient (salt etc) Communicate with vendors associations to use ingredients and base materials Address taste through developing innovative recipes and alternative ingredients 	lifestyles and times. • Use champions to create demand for healthier diets • Use innovative yet simple labelling methods, nutrient lists are difficult to manage due to recipes not being standardized (not feasible); easy recognizable logos • Support with promotional materials, awards, publicity	 Identify policy space and existing programmes for sustainability and reduction of infrastructure and personnel costs. Food safety programmes, school food programmes and canteens, government department settings Other; PPP 	Monitoring and evaluation is essential for robust implementation



Expanding Food Safety initiatives to include promotion of healthy diets: Food Safety Specialist, Indonesia

Ms. Chitra Prasetyawati, Food Safety Specialist from Indonesia shared that food safety must broaden its scope to healthy diets. She detailed the current challenges on food safety, predominantly incidence of food borne illnesses and increase in mortality. She highlighted the various challenges pertaining to the informal food sector, and elaborated on how food safety norms on nutrition need commitment. She stressed on the importance of risk-based system and IEC to changing the mind-set of consumers and producers. The detailed presentation is placed at *Annexure 19*

Session 5: Critical Components: Leadership, policy frameworks, communications and advocacy, convergence with other initiatives and sectors.

Dr Angela mentioned that the informal sector consists of various areas that need to be mapped. From the school program, where informal cafeterias are present to the online or home cooked meal providers, must be identified. She explained how through the FeedCities project, cities in central Asia and South eastern Europe are being studied. This will help in identifying structures, map the informal sector and further create an enabling environment. The detailed presentation is placed at *Annexure 20*.

Dr Piyapong from Thailand stated that it is often that traditional foods may be unhealthy and therefore reformulation may be needed. He mentioned that some countries are going ahead with very innovative ways to promote healthy foods and communication through digital platforms is also seen. To elaborate on the Thailand experience, he shared new ways of thinking and other BCC challenges. He shared how in Thailand there is Participatory Talent System (PTS) which helps in guaranteeing the quality of the organic food. CSA or Commodity Supported Agriculture is a practice where the customer and producer know each other and can reflect and provide a mutual feedback. He stated that the leadership at the highest level is needed as covering the informal sector is not an easy task. The task of reformulation of products is huge and must be done in a phased manner. He announced that Thailand will soon be Trans-Fat Free country. The detailed presentation is placed at *Annexure 21*.

Shri Atin Ghosh, Hon'ble Deputy Mayor of Calcutta also shared his experience in working with the street food vendors. He mentioned that The Kolkata Municipal Corporation (KMC), the erstwhile Calcutta Municipal Corporation (CMC) was the first city to initiate studies on street foods for better management and hygiene regulation. He gave the details of the study and his learnings from the project in Calcutta. The detailed presentation is placed at *Annexure 22*.



Dr Indira Chakravarty, Nutrition and Food Safety Expert shared that the informal food sector is a throbbing topic but still needs a lot of intervention. She mentioned that space restrictions in street food can take over, without proper water supplies, segregation of safe and unsafe food vendors is not possible. She shared the details of the pilot study being undertaken where a star rating will be provided to them. The detailed presentation is placed at *Annexure 23*.

Panel Discussion 1

A panel discussion was held on finding potential for improving nutrient composition of street foods, the practical challenges and solutions thereof. The discussion was around assessing consumer perspectives, their expectations and demands. The food vendor and their perspectives also the quality of raw materials, quality and the food that is prepared by them. What are the existing food supply chains and pricing? How can food safety initiatives be expanded to encompass food quality in tandem with food safety. To begin the discussion, Dr Purani shared that education to set up healthy food is already



there, as well as good cooking methods. There is a need to identify and bring that out. Portion size, healthy diet increased consumption of fruits and vegetables, low HFSS and areas pertaining to food safety must be identified by the food vendor. However, we must not forget the practical usage of high

salt as preservative, carbohydrates which provide for satiety unless we have solutions for the same.

Ms Mandy, Hong Kong said that the aim is to create business for them and because there is limitation of the informal food sectors, tailor- made restaurants may facilitate the options that are accommodating tastes.

Dr Warren stated that diversity is low due to poor dietary availability, increase the variety of food and resulting cost in the diet. From an agriculture point of view, we also must think about the livestock, fisheries etc. in particular the peri-urban areas where there are insufficient food supplies. If we can link with the suppliers, farmers to organize farmers and produce organic food, the soil can be benefitted as well. In South Asia, legumes and pulses are staples. This can be introduced to the diet and replace some carbohydrates in the diet. Short supply chain and food supplied is less diversified. You can also engage migrants who have the skills of farming. A lot of education is needed at the consumer level to engage and practice heathy habits. He suggested that FAO could do a nutrition sensitive value-chain study, a project in Myanmar is being conducted to diversify different types of crops.

Dr Indira mentioned that we must expand the agenda beyond food safety and involve stakeholders that will help bring in change. She stated the example of Calcutta, where the police were involved and that proved to be a game changer as vendors listen to the police who also turned out to be good communicators. She mentioned that HACCP points were identified and in their study after the use of gloves, the risk of food safety increased as the vendors either reused or took off the gloves. Hence, training and knowledge dissemination becomes critical.

Ms Carla, WFP shared that there is a need to step back and think of the pre-requites and assess if there is space to expand. Prioritization of resources is needed, risk assessment and safety might cause a detriment in the nutrition of the population. Evidence generation is significant from both the seller and the buyer perspective. The other aspect is to build capacity and monitor well. Historically put in the pace as opposed to the opposite is the bottom-up approach. Another gap is demand generation, analysis of diet, lack of diet diversity but affordability. We have to think of optimizing reformulation efforts. Healthier ingredients that are available and cheaper must be ensured. Working with cross functional agencies. Among local and regional governments, find ways of incentivizing small enterprises and improve regulations in terms of zoning.

Group work 1. Brainstorming

The panel discussion was followed by Group Work on identifying action points including information/knowledge gaps, convergence with other sectors and related issued. The aim was to:

- Identifying possible action points related to promoting healthier street foods including filling information/knowledge gaps
- Convergence and working with other sectors: Identify possible agencies that would lead interventions to promote healthier street foods, other sectors/partners and stakeholders and opportunities and constraints in implementing programmes
- Monitoring and evaluation

The detailed group work is placed at Annexure 24.

Changes to food preparation methods and labelling of street vended foods.

Prof Visith Chavisith, Mahidol University shared an overview of the consumption pattern of Thai food habits especially carbohydrates and sugar over time which has led to an increase in the incidence of NCDs. He apprised the audience on how the reformulation of products through nutrient profiling can eventually lead to healthier diets. He shared certain labelling actions that have been taken by the country which can assist in reduction in the NCD occurrence. He concluded the presentation by mentioning that the improvement of the nutrient profile of foods in restaurant and street food vendor is complicated. Hence, the role of Front of Pack labelling is limited but somehow is still beneficial. By naturally merging the healthier food products into these food services, a healthier diet can be obtained. The detailed presentation is placed at *Annexure 25*.

Day 3

Recap

The day started with a recap section and alignment of views and work plan of the countries. The following were the discussion points:

- Leadership
 - 1. Political leadership- vital for initiating and driving policies, sustaining programmes and allocation of resources.
 - 2. Leadership of officials, technical experts: to support processes, provide appropriate methodology including monitoring
 - 3. Facilitation rather than punishment: Empathy for vendors and their issuesfacilitating solutions
 - 4. Interest and awareness generation through site visits, publicity through media
 - Context specific, 'fit for purpose' models with varied incentives which ultimately lead to increased business
- Street foods, nutritional value, consumer perceptions and changing methods:
 - The nutrition transition has likely affected the kind of street foods on offer. Earlier data show nutritionally adequate energy, protein and carbs. Newer foods are higher in salt, sugar and fats.
 - 2. Generally whole meals from traditional foods are more nutritious than snacks and beverages.
 - Perception of value of a diet dependent on socio economic and educational status; for the poor- value depends on price and quantity whereas for the higher SES, value would be on nutrition, or culture.
 - 4. Promoted changes need to be practical as well as provide incentives; baking needs electricity, boiling would often take away taste.

- 5. Consider the double burden of malnutrition
- Food system approach and urban environment
 - To promote heathier diets in cities urban and peri- urban agriculture is a must. Shorter food chains and connectivity to food services with zoning of areas must be done. Farming in public institutions including hospitals and schools must be promoted.
 - Use of soft policies may be more sustainable than regulations and force: e.g. providing a new image for street foods in the 21st century; rebranding vendors and street foods
 - 3. Behaviour change needs to happen in parallel to structural changes; exploring new concepts such as 'nudging' maybe useful.
 - 4. To improve nutritional value of street foods needs diversity of foods– which is dependent on the food supply and more nutrition sensitive value chains.
 - 5. Emphasis on urban agriculture through innovation
- Expanding food safety programmes to promote healthier diets
 - A risk based approach must be considered- based on robust evidence. Resources for food safety are already scare and thus programme implementation may be seen. Are the planned activities evidence based? It is therefore best to focus on a single action rather than a multitude of actions which may not be feasible.
 - 2. Coordination between sectors important, but also coordination between technical agencies
- Food technology and reformulation
 - Reformulation of products is an 'upstream' game changer: Harness reformulation efforts of industry to make changes in base ingredients used in informal food sector.
 - 2. Reformulation of recipes- best done by experts (chefs) rather than technical experts and nutritionists.
- Improved management of street foods; a practical approach to monitoring
 - Successfully extending existing monitoring systems (e.g. food safety) to promote healthier street foods

- 2. Monitoring is complex and, in some situations there is limited regulatory manpower for monitoring, training, hand holding, awareness generation etc. expensive, needs lab support and often does not identify underlying drivers of the problem. Use of mobile testing trucks and food Safety assessment methods could be adjusted; 'audio-visual' as a screening approach for selection of lab testing
- 3. Accepted practices can be adjusted to be contextual; headgear, wearing of gloves
- The informal food sector
 - Information from Member States indicate that the definition of informal food sector is beyond street foods.
 - Street-vended foods" or "street foods": ready-to-eat foods prepared and/or sold by vendors and hawkers especially in the streets and other public places (CAC/GL 22-1997).
 - 3. Actions identified in group work span the processing and sale of ready to-eat food prepared foods in the street and small restaurants/outlets.
 - 4. Lines between informal and formal food sectors appear to be blurred.

Panel Discussion 2

The second panel discussion focussed on the next steps and recommendations that will help promote nutritious diets through the informal sector. The discussion was around guidance and framework or tools needed, communication with the public to increase knowledge and awareness, what labelling, recipe standardization, legal and regulatory measures are required.



Ms Ann mentioned that one of the key areas now is to define the problem that you are trying to solve into bite size pieces. Follow the solutions and monitor the results. She mentioned that healthy dining didn't start from the informal sector, the problem seems to be bigger than that. There is a need to rebrand the recipes and reposition healthy

brands. Traditional foods are at the heart of any individual, cultural beliefs may influence the promotion of healthy food. Also, a champion is required who will act as an influencer and the

'Hero'. This human interest angle can be the highlight and bring about a change in the culture as well. She also mentioned that being consistent is important. Going back and build confidence will bring in credibility.

Dr Lee mentioned that working together with the key stakeholders to levy support is important. They can be the spokesperson and bring in some progress to the diet. To add new products, working with the industry to produce better quality of food is essential. Best use of mass media is always a great idea. If you have the persistence, impact will be seen.

Ms Jessica, representative from UNICEF mentioned that science needs to be broken down to consumer language. Influencers in the community may be needed as the choices of consumers is varied. Finding the balance between need and want is necessary. Same message must be disseminated through various channels. Identifying where do people get their information is necessary to build a communication strategy. Subliminal message dissemination through sports news channels, tV series, social media can help link the message with the consumer. Use creative ways to put across your key messages. Provide health messages to the country. There are lot of conflicting some coming from NGOs etc. it is important to have the consumers to follow the message you are trying to relay.

Dr Vasith mentioned that initially there is a lot of resistance but then rather than moving a mountain, move the hill first. Start with medium and small enterprises and the big industries will follow.

Ms Chitra, food safety expert, mentioned that we can learn from each other. Once the leaders commit to the importance, implementation is possible. With clear policy frameworks, all stakeholders must work together.

Further, the group work 2 focussed on the country plan and next steps towards promotion of healthier diets. The detailed group work is placed at **Annexure 26.**

Recommendations for Promotion of Healthier Diets through Informal Sector in India through FSSAI

From the learnings of other countries and discussions, the following are the key suggestions and recommendations that may be undertaken to promote FSSAI's initiatives and healthier diets through the informal food sector.

- As FSSAI is looking at promotion of wholesome and safe food through a holistic approach, linkages may be formed between the initiatives to integrate and mainstream the program and bring in sustainability. For instance, restaurants who have adopted hygiene rating or the clean street food hubs must be linked to the RUCO initiative for easy disposal of used cooking oil. This will also ensure boost to other programmes as well.
- 2. Zoning of areas designated as informal sectors will help in mapping the landscape in India as well. This may be integrated in dashboard of FSSAI.
- The Eat Smart Restaurant concept or the sticker concept as Thailand may be a part of Hygiene Rating programme.
- USDA has an elaborate and dedicated nutrient database, the same may be created by FSSAI along with the industry and key stakeholders.
- 5. In the checklists of various initiatives, nutrition parameters may be integrated to gather knowledge and information.
- 6. FSSAI may approach the TV serials industry and promote Eat Right India messaging subliminally.



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WHO/FAO Inter-Regional meeting to promote healthy diets through the informal food sector, 20-22 August 2019, Bangkok, Thailand

OBJECTIVES

- 1. Share best practices and challenges to understand the few operating models that are currently in place in specific cities/areas to support healthy diets in the informal food sector.
- 2. To prioritize initiatives, including regulatory measures (including local and selfregulatory measures) and support needed to promote for better quality of foods from the informal sector.
- 3. To develop draft recommendations for promoting a healthy diet through the informal food sector, for consideration of Member States, or large cities within Member States.



WHO/FAO Inter Regional meeting to promote healthy diets through the informal food sector, Bangkok, Thailand, 20-22 August 2019.

Tentative Programme

DAY 1, Tuesday, 20 August 2019			
Time	Session	Responsible Officers/resource persons	
Session 1: Open	ing and introduction		
0830-0900 hrs	Registration		
0900-0930 hrs	Inauguration Inaugural Session Regional Director's Remarks/message Meeting Objectives Introduction of participants Photograph	Regional Director's message to be read by Dr Angela de Silva	
0930-1000 hrs	Tea/Coffee		
Session 2: Regio	nal overview		
1000-1015 hrs	Informal sector foods including street foods in Asia	Dr Juliawati Untoro, WHO-WPRO	
1015-1030 hrs	Informal food sector- entry points to promote for safe and healthy foods	Dr Angela de Silva ,WHO SEARO	
1030-1045 hrs	Perspectives on promoting healthy diets in the informal food sector – an urban food systems approach	Dr Warren Lee, FAO	
Session 3: Count	ry experiences, good practices and lessons learned		
1045-1115 hrs	Experiences from Region Healthy diets in informal food sector in Singapore: good practices and lessons learned Q and A	Ms Ann Low Health Promotion Board Singapore	
1115-1215 hrs	Country presentations – 3 countries - Experiences in informal food sector improvement, include food safety, challenges, lessons to be taken to improve diets and future plans (Followed by Q & A)	Countries	
1215-1315 hrs	Lunch		
1315-1345 hrs	Country presentations - 2 countries - [Experiences in informal food sector improvement, include food safety, challenges, lessons to be taken to improve diets and future plans (followed by Q & A)	Countries	



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1345-1410 hrs	Healthy diets in the informal food sector - EatSmart@restaurant.hk: good best practice and lessons learned examples from Hong Kong [initiation, advocacy, buy in, implementation and M and E]	Ms Mandy Kwan Central Health Education Unit, Centre for Health Protection Department of Health Hong Kong
1410-1440 hrs	Street foods and healthy diets; a review of available information from Asia	Prof Pulani Lanerolle Faculty of Medicine, University of Colombo, Sri Lanka
Session 4: Linkag	e and/or integration with other sector or programmes or initiativ	es
1440-1500 hrs	Expanding food safety initiatives to include promotion of healthy diets: Clean Food Good Taste project Country presentation: Thailand	Thailand country presentation
1500-1530 hrs	Теа	
1530-1630 hrs	Experiences in informal food sector including food safety, challenges, improving diets for health (followed by Q & A)	Country presentations [3 countries]
1630-1730 hrs	Discussion: Scope of informal food sector for identification of actions to promote healthy diets	Directed discussion
	DAY 2, Wednesday, 21 August 2019	
Time	Session	Responsible Officers/resource persons
Time 0090-0920 hrs	Session Expanding food safety initiatives to include promotion of healthy diets	Officers/resource
0090-0920 hrs	Expanding food safety initiatives to include promotion of healthy diets I components: Leadership, Policy frameworks, Communications a	Officers/resource persons Ms Citra Prasetyawati Food Safety Specialist, Indonesia
0090-0920 hrs Session 5: Critica	Expanding food safety initiatives to include promotion of healthy diets I components: Leadership, Policy frameworks, Communications a	Officers/resource persons Ms Citra Prasetyawati Food Safety Specialist, Indonesia
0090-0920 hrs Session 5: Critica with other initia	Expanding food safety initiatives to include promotion of healthy diets I components: Leadership, Policy frameworks, Communications a tives and sectors Identification of critical elements/principles from country experiences and lessons learned, finalizing the scope of actions	Officers/resource persons Ms Citra Prasetyawati Food Safety Specialist, Indonesia nd advocacy, convergence Dr Angela de Silva, WHO- SEARO Dr Juliawati Untoro,
0090-0920 hrs Session 5: Critica with other initiat 0920-0940 hrs	Expanding food safety initiatives to include promotion of healthy diets I components: Leadership, Policy frameworks, Communications a tives and sectors Identification of critical elements/principles from country experiences and lessons learned, finalizing the scope of actions (collation of information from Day 1) An urban food systems approach for promoting healthy diets;	Officers/resource persons Ms Citra Prasetyawati Food Safety Specialist, Indonesia nd advocacy, convergence Dr Angela de Silva, WHO- SEARO Dr Juliawati Untoro, WHO-WPRO Dr Piyapong Boossabong School of Public Policy, Chiang Mai University,
0090-0920 hrs Session 5: Critica with other initiat 0920-0940 hrs 0940-1000 hrs	Expanding food safety initiatives to include promotion of healthy diets I components: Leadership, Policy frameworks, Communications a tives and sectors Identification of critical elements/principles from country experiences and lessons learned, finalizing the scope of actions (collation of information from Day 1) An urban food systems approach for promoting healthy diets; urban policies, built environment and practices	Officers/resource personsMs Citra Prasetyawati Food Safety Specialist, Indonesiand advocacy, convergenceDr Angela de Silva, WHO- SEARO Dr Juliawati Untoro, WHO-WPRODr Piyapong Boossabong School of Public Policy, Chiang Mai University, ThailandMr Atin Ghosh, The Hon Deputy Mayor of



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1040-1100 hrs	Healthy diet initiatives for street foods; practical options Q and A National and sub national legal frameworks, ordinances and	Prof Indira Chakravarty Nutrition and Food Safety Expert, Chief Adviser, Public Health Engineering Department, Govt. Of West Bengal Dr Manisha Shridhar,
	regulations for safe and healthy foods	WHO/SEARO (remote presentation)
1120-1220 hrs	Panel discussion 1 Potential for improving nutrient composition of street foods: practical challenges and solutions - Consumer perspectives: expectations and demands - Perspectives of food vendors (raw materials, quality and food preparation) - Food supply chains and pricing - Expanding food safety initiatives to encompass food quality	Dr Pulani Lanerolle Ms Mandy Kwan Dr Warren Lee Dr Indira Chakravarti WFP
1220-1315 hrs	Lunch	
1315-1340 hrs	Changes to food preparation methods and labelling of street vended foods.	Prof Visith Chavisith Mahidol University
1340-1400 hrs	FeedCities Project for evaluating street foods in Central Asia	Dr Angela de Silva
1400-1500 hrs	Group work 1. Identifying action points including information/knowledge gaps, Convergence with other sectors including legal and regulatory issues food related options such as labelling, Monitoring	Moderators: resource persons
1500-1530 hrs	Tea/coffee	
1530-1630 hrs	Commentary: Synergies for improving informal food sector to promote healthy diets; practical possibilities and initial steps for cities	Mr Atin Ghosh, The Hon Deputy Mayor of Calcutta Other city /municipal corporation members from country delegations. Dr Piyapong Boossabong, Chiangmai University, Thailand Connectivity to other programmes such as Healthy Cities



DAY 3, Thursday, 22 August 2019			
Time	Session	Resources	
0900-0930 hrs	Critical strategies for healthy diets in the informal food sector including convergence with other initiatives/sectors	Dr Angela de Silva, WHO- SEARO Dr Juliawati Untoro, WHO-WPRO Dr Warren Lee, FAO	
Session 6: Key a	ctions and Way Forward		
0930-1030 hrs	Panel Discussion 2: Key actions and way forwardGuidance frameworks/tools neededCommunication with the public- consumer awareness andeducationLabelling, recipes standardization, legal and regulatory issues,Expanding food safety initiatives: Monitoring – innovativepossibilities	Ms Ann Low UNICEF Dr Visith Chavasit Ms Citra Prasetyawati	
1030-1100 hrs	Tea/Coffee		
1100-1200 hrs	Group work 2: Moving ahead- next steps/ recommendations Government/Cities -urban planning and actions across sectors Strategic framing: food/ agriculture, environment issues for policy direction Communication and advocacy: with street vendors/informal sector Communication with public Expanding the knowledge base	Group work	
1200-1300 hrs	Lunch		
1300-1500 hrs	Group presentations	Comments by resource persons	
1500-1530 hrs	Tea/coffee		
1530-1630 hrs	Concluding session	Dr Juliawati Untoro, WHO-WPRO Dr Angela de Silva, WHO- SEARO Dr Warren Lee, FAO RAP	

Informal food sector- entry points to promote safe and healthy foods





Angela de Silva

Regional Adviser Nutrition and Health for Development

WHO Regional Office for South-East Asia

Outline



• Describe the informal food sector and definitions

- Suggestions to define the scope of the informal food sector for this meeting
- Aspects to consider when discussing entry points for healthier diets through the informal food sector

- The informal sector participates in food supply and distribution through **food production (rural- urban links), transport, retail sales**
- Significant role in Asian economies, specially in urban settings; livelihood, diets etc..
- Few policy documents refer to informal foods in the context of healthy diets

e.g. 2016 Milan Urban Food Policy Framework for Action; SEAR regional action plan to reduce the double burden of malnutrition; New food safety documents; draft voluntary guidelines for healthy diets (CFS). Framework for Action (ICN 2, Rome, 2014)

 Complex; no evidence based guidance or recommendations are available to comprehensively promote healthy diets in informal settings





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Meeting objective: To promote healthier diets through the informal food sector;

• Scope ?

Processing and sale of ready to-eat food (prepared food in the street and small restaurants/outlets Healthier diets overall or NCD nutrients? Focus on selected food types Mobile vending premises or food stalls ? other?

- Information / data: Since social, technical, economic, institutional, legal and political aspects need consideration, information is needed
- Implementors? multidisciplinary and multidimensional collaboration, convergence between local governments, food safety authorities, nutrition sectors





Definitions

'Street-vended foods" or "street foods": ready-to-eat foods prepared and/or sold by vendors and hawkers especially in the streets and other public places. (CAC/GL 22-1997).

Street Food Stall: a place where street food is prepared, displayed, served or sold to the public. It includes carts, tables, benches, baskets, chairs, vehicles with or without wheels and any other structure

Street Food Centre: any public place or establishment designated by the relevant authority for the preparation, display and sale of street foods by multiple vendors. (CAC/GL 22-1997) Processing and sale of ready toeat food (prepared food in the street and small restaurants or outlets



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Policies, legislation, local government regulations on street vending

- Country policies and laws (e.g. public order)
- Local government laws, urban planning regulations, zoning, hawking and vending regulations
- Bylaws and business licensing regulations
- Compulsory/formal uniform training on hygiene, nutrition or other aspects of food preparation linked to registration?
- Regulations on use and storage of raw food materials, waste products, training needs
- Inspections/monitoring? consumer complaint system?
- Environmental regulations

PROPOSED RULES FOR STREET VENDORS

California state senators recently announced legislation that couvendors in all cities in the state. Here are a few rules for street v City Council has been considering:

- · Establishing a street vending permit system to authorize sales or
- Preventing street vendors from operating in alleys, city-owned p areas that residents or business members reject by petition
- · Creating a loan program that allows vendors to seek grants for s
- · Providing incentives for street vencors to sell healthy food items



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Vendor profiles, perceptions, constraints and opportunities

- Vendors/suppliers: poor urban dwellers, often migrants low socio economic and educational status, mobile.
- Perceptions that improving the nutritional quality means higher prices- meat, fresh vegetables, healthier oils
- Selection of foods? Taste: salt, fat, tasty, filling, less fruits and vegetables, -- low purchase value, spoilage
- Lack information and are therefore less inclined to follow health directives
- Unlikely to be motivated by practices that are environmentally friendly unless incentivized; solid fuels for cooking, less plastic use.
- ? repressed by the local authorities
- Cooking practices







Consumers

- Consumer profiles; ? mostly from lower socio economic status; unable to afford higher prices
- Inadequate nutrition literacy
- Taste, cultural foods, convenience
- Preferences for certain foods (deep fried over uncooked due to food safety concerns)
- Physical access





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Education and awareness

- Knowledge, attitude and practices (KAP) of vendors and consumers on safe and healthier foods
- Awareness of officials regarding informal foods and their importance
- Recipes and labelling
- How to sustain current education and awareness beyond project mode?
- Other issues: environmental pollution; plastic, solid cooking fuels





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Data needs

- What policies are currently in place ?
- Better understanding the role, operators and consumer practices and profiles in the purchase of food prepared in the street and small restaurants/outlets.
- Identification of itinerant food vendors and small restaurant operators and their activities
- Types of foods and their quality in terms of nutrition- probably country and locality specific
- Identify points of sale, needs for infrastructure, equipment, information and training
- Groups and associations of informal operators

Other considerations



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- Food safety initiatives can they be extended?
- Which agency should lead ? Local authorities/municipal corporations are best positioned.
- Good coordination between the public health authorities, police and local body administration essential.
- Connectivity between small farmers and street food vending; network of suppliers and practices.
- The presence of organized associations or cooperatives- for negotiation; vendors have a voice, access credit, information
- Consumer accessibility and interest in particular foods
- Emphasis on food, region and cultural heritage connectivity

Possible policy options: processing and sale of ready to-eat food prepared in the street and small restaurants/outlets

Dialog within the city hierarchy and vendors' and consumers' representatives and other stakeholders



 Attitudes and policies favourable to food informal operators

- Relocation of vendors into "food centers" located at strategic sites
- Issuance of licences depends on following basic course on healthier diets? following of recipes/standards
- Fiscal measures and other incentives for food vendors/along the supply chain; access to credit, positive labelling/ratings
- Facilitating access to the services needed by the informal food sector; technical support for recipes, equipment
- Increase consumer demand for healthier options.....

Thank you



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Western Pacific Region

INFORMAL FOOD SECTOR IN ASIA Regional Overview

Dr Juliawati Untoro

Technical Lead, Nutrition WHO Regional Office for the Western Pacific

More than 68% of the employed population in Asia-Pacific are in the informal economy

- 1.3 billions people work informally in Asia- Pacific, comprising 68% of the world's informally employed (ILO).
- According to the OECD, people who work in the informal sector:
 - "typically operate at a low level of organization,
 - with little or no division between labor and capital as factors of production and on a small scale.
 - Labor relations where they exist are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees."
- Largely unrecognized, unrecorded/unregistered, and unregulated small-scale activities.
- The informal sector is much greater in developing nations.





What is "informal" food sector?

- The "*informal* food sector" (IFS) exists in many forms.
 - It includes small producers, enterprises, traders and service providers, involved in legal as well as unrecognized activities related to food.
 - Various micro-entrepreneurs are some ways legally recognized by authorities.
- Food retail comprises the actors who move products through the market into the hands of the consumer.
 - open or wet retail markets and small, independent (family-run) retail stores;
 - informal food vendors and restaurants.





Types of Informal Food Sector

Street Food

- A wide range of ready-toeat foods and beverages sold and sometimes prepared in public places, notably streets.
- Vendors' stalls are usually located outdoors or under a roof which is easily accessible from the street/sidewalks.
- Important to the poor for socio cultural, economic and nutritional reasons

Market Vendor

• Most visible actors in the IFS - formal markets (e.g. public markets managed by local authorities) and informal or spontaneous markets.

Small Restaurant/Caterer

- Home-based caterers are entrepreneurs who cook food at home and then serve the finished products.
- Small restaurant/ canteen – often not registered.



Roles of Informal Food Sector

Economic impact

- an income-generating activity,
- employment, income and livelihood especially for the urban poor.
- Food security cheap and easily accessible.
- **Social function**. Street vendors have knowledge of local conditions and develop close relations with customers.
- Offer variety of traditional/cultural food tourism.





Social and economy roles

- IFS plays key roles. However policy in low- and middle-income countries to date on these retailers has rarely been focused on **diet quality**.
- There are 2 aspects:
 - Survival with primary aim is daily food security policy with high social content.
 - Economical with primary aim is economic growth policy with economic content.
- Investment to ensure the competitiveness of this sector to help make **nutritious foods accessible and affordable** to local populations could strengthen them in the face of competition from supermarkets.





Examples Regulations and initiatives

Country	Regulations/Initiatives
Cambodia	In July 2017, Phnom Penh municipal government began clearing away vendors from streets and sidewalks, beginning with 11 of the city's main streets.
Indonesia	 In Surakarta, Street Vendor Management Programme relocated over 3,000 vendors to cleaner areas (2005). In Jakarta, the state government waived licence fees for street vendors in 2013, and included areas for hawkers in the city's Spatial Plan 2030.
Philippines	 Street vendors were legalised in 2001, registered as informal workers and supervised under vendor associations. Parks, side streets and vacant lots were designated as legal hawking areas. In 2016, the government cracked down on illegal vendors and established a Zero Vending policy. The Cebu City United Vendors' Association - founded in 1984 and includes 63 member organizations represents approximately 7 000 members. Their roles include engagement in policy development; advocacy to support street vendors'; facilitating the access to credit.
Myanmar	In 2014, hawkers were banned in 33 townships in Yangon. In 2016, food vendors on Yangon's 11 busiest streets were relocated to two night markets or onto side streets. Officials said there were plans to open more night markets.



Examples Regulations and initiatives

Country	Regulations/Initiatives
Korea	Korea - In 2007, the Seoul government designated legal hawking streets. In 2016, it said that it would legalise 8,000 illegal vendors by creating a legal framework for vendor licensing.
Malaysia	Street vending/ hawking is only permitted with a license granted through the local councils.
Mongolia	There is a policy on regulation and licensing of street vendors. However, due to time- consuming bureaucratic hurdles in getting registered, street vendors do not register which makes them illegal.
Singapore	 Hawker license" issued by the National Environment Agency under the "Environmental Public Health Act" All food prepared and sold in the centers must comply with rules set out in the Environmental Public Health Act, the Environmental Public Health (Food Hygiene) Regulations, and the Sale of Food Act. To facilitate relocation of hawkers from the street to hawker centers, the government offers subsidized stalls in the hawker centres.
Viet Nam	Regulations and strengthed campaigns to clear the sidewalks.



Challenges

- Lack of recognition by authorities as a legitimate land use activity leading to conflicts in use.
- Lack of sustainability due to lack of recognized rights for vendors to set up mobile vending stands in regulated places.
- Lack formal/legal status that would facilitate improvement in food hygiene and access to credit.
- Vendors suffer from traffic, noise, personal safety and hygiene problems.
- Consumers face nutritional and food safety risks.





Summary (1)

- IFS exists in all countries in Asia and Pacific.
- It continue to offer incomes to a wide variety of people.
 Convenience to purchase and appreciated not only by urban poor but also office workers and tourists.
- Although much work remains to be done, there are good reasons to be optimistic about the future of the informal food sector and its potential.





Summary (2)



Authority should consider IFS as partner of local development initiative.

- Regulation/policy
 - o regulatory framework and formulate enabling programmes.
 - o regulations on land occupancy and integrate into urban planning.
- Information and training
 - provision of relevant food safety, hygiene and nutrition training sustainable and there is provision for repeated capacity building.
 - o Involve of the civil society in the awareness, campaigns, and policy advocacy
- Environment, Sanitation and Hygiene
 - Supply operators with adequately infrastructure facilities, equipment and services.
 - o Ensure compliance with standards and regulations.
- Food Safety
 - Enforce regulations on food safety and quality standards and rules of hygiene.
- Food Quality and Nutrition
 - Create policy related to healthy and safe street food.
 - o Governments to update food standards and quality objectives.





THANK YOU





Food and Agriculture Organization of the United Nations



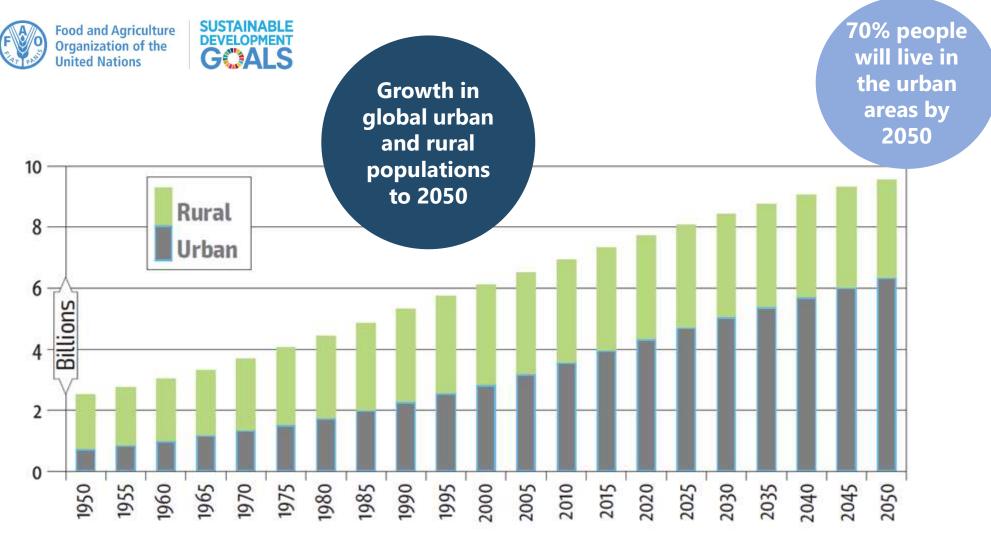
Promotion of Healthy Diets in the Informal Food Sector – an Urban Food System Approach

Warren T K Lee, *PhD, RD, RNutr (Public Health).* Senior Nutrition & Food Systems Officer, FAO Regional Office, Bangkok, Thailand.

WHO/FAO Inter Regional meeting to promote healthy diets through the informal food sector, Bangkok, Thailand, 20-22 August 2019.

200,000 people a day, 1.5 million people a week move from countryside to cities

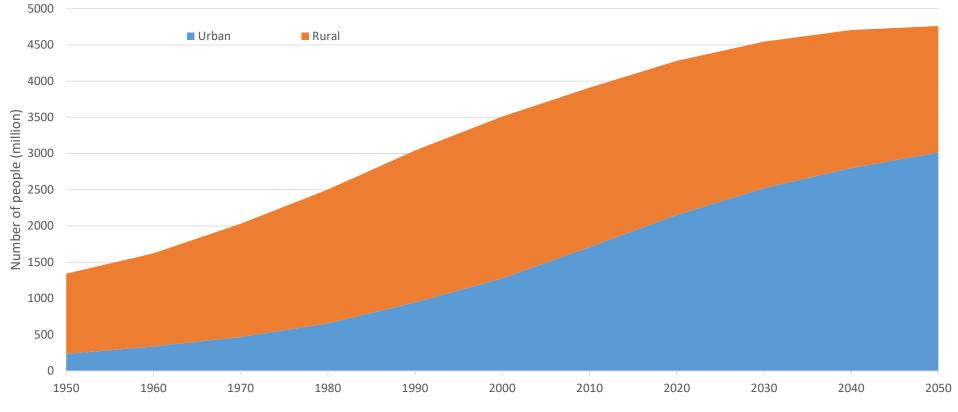
Crowded Train in Bangladesh (Source: Travel Photographer of the Year)



Source: UN, 2015.



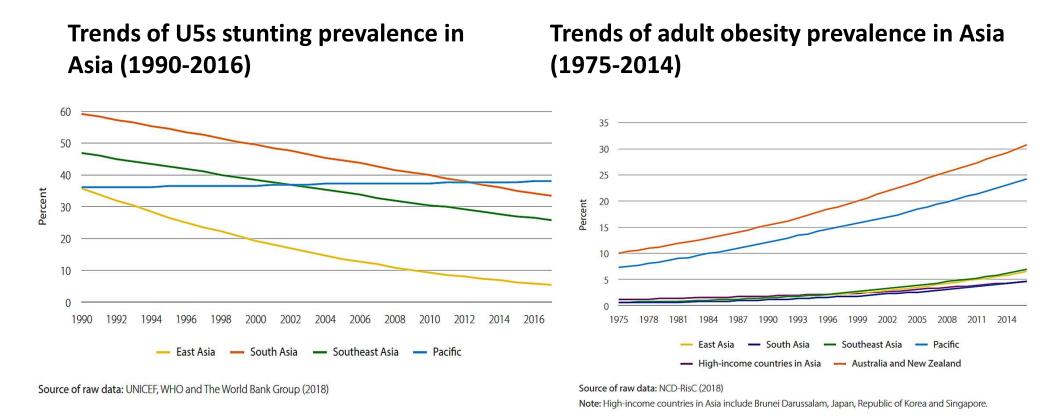
Asia-Pacific is increasingly urbanized



FAO, UNICEF, WHO, WFP (2018). Asia and the Pacific Regional Overview of Food Security and Nutrition



Trends of the paradox over time

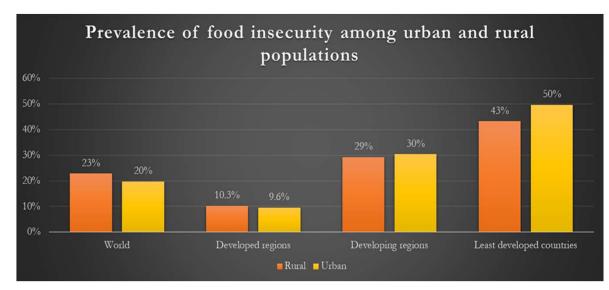


FAO. 2018. Dynamic development, shifting demographics, changing diets. Bangkok. 172 p. Licence: CC BY-NC-SA3.0 IGO.





With increasing urbanization in Asia, food insecurity shifts from rural areas to urban areas

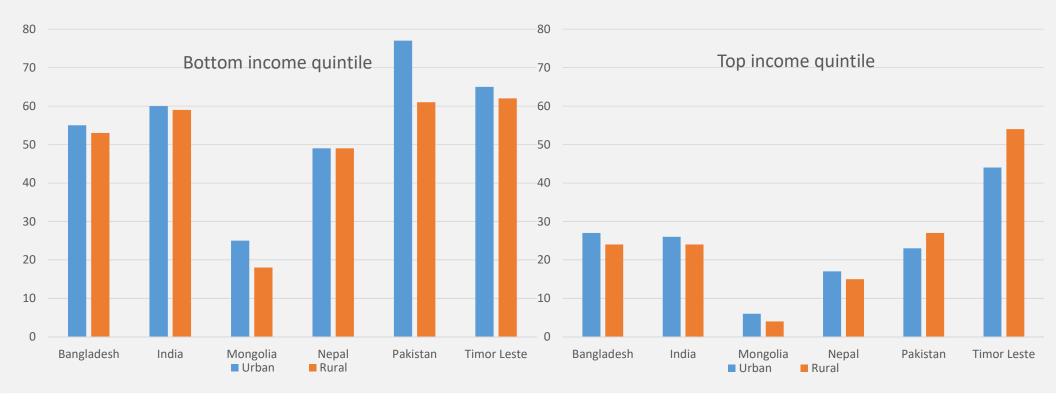




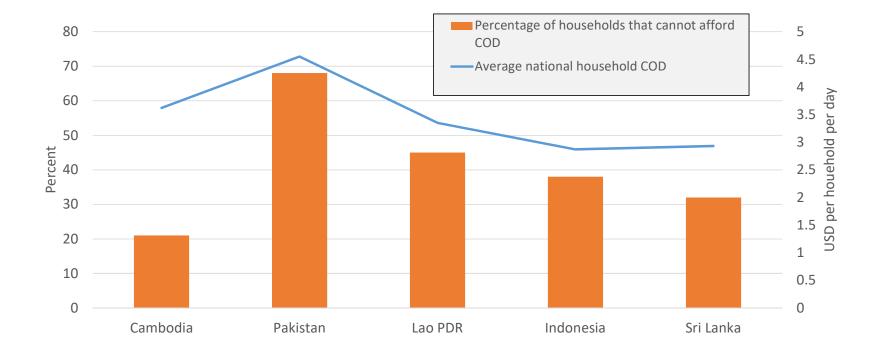




Stunting in urban poor is comparable and even higher than rural poor



Diversified healthy diets are often unaffordable for the poor



Source: WFP Cost of diet (COD) and Fill the nutrient gap studies



FAO's Food Systems Approach for Healthy Diets & Improved Nutrition

Unbalanced Diets Underpins all Forms of Malnutrition



Moving towards a Nutrition-sensitive Food Systems...

Medical approaches (e.g., diet supplements) under the **Health Systems** only tackle acute and specific nutrient deficiencies, but cannot resolve underlying problems of malnutrition without addressing where foods comes from, i.e. **agriculture & food systems** (diet diversity & quality; food availability, access and consumer's choice)

Healthy Diet, Nutrition and Food Systems

➤ Healthy diets ...

Ensure sound nutrition:

- Foods foundation for growth, health and well-being, in turn
- Low-quality diets the common denominator for all forms of malnutrition
- Sustainable Food system (from farm to fork) has a huge potential to improve diets, & nutrition, protect natural resources, improve livelihoods, decent employment



> What is a food system?

It gather all the elements of :

- People (food system actors farmers, consumers, private sector, policy makers, etc.)
- Environment (socio-political, economic, and technological)
- Infrastructures
- Institutions
- ... and activities that related to:
- Production
- Storage & processing
- Transportation
- Sales/marketing
- Distribution
- Selection, preparation and food consumption
- Social-economic & environmental outcomes

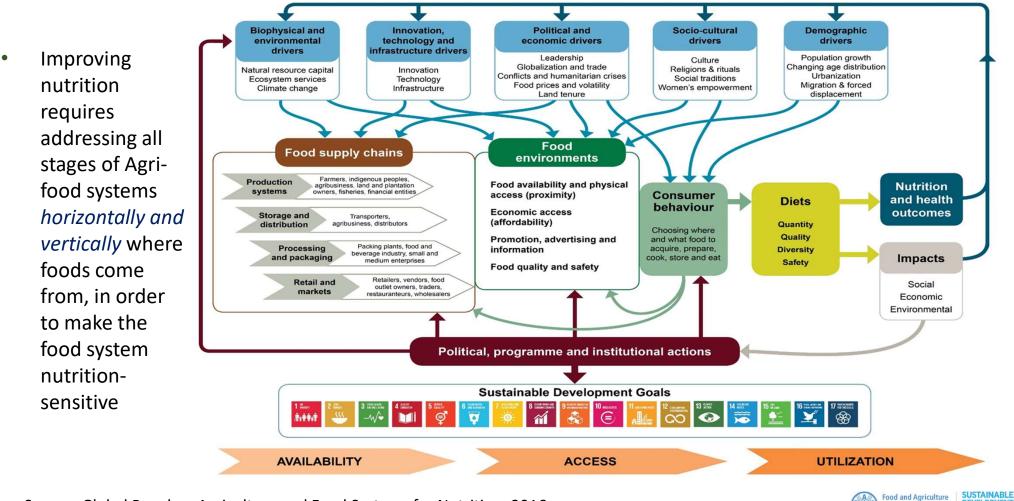


Note: food system governs the safety, diet quality and affordability of foods, & modulates nutrition & health outcomes of humans, it also has impacts on the planetary environment

10

Food and Agriculture Organization

Transforming Food Systems for Healthy Diets and Improved Nutrition



DEVELOPMEN

GOALS

Organization of the

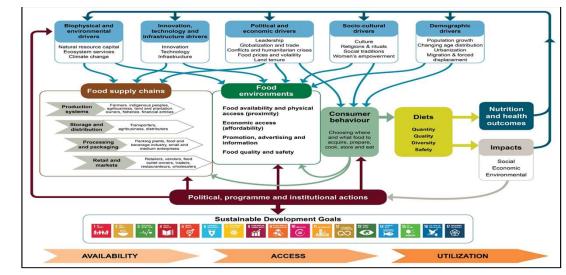
United Nations

Source: Global Panel on Agriculture and Food Systems for Nutrition, 2016



Why Food 'System' approach?

... it deepens the understanding of the link btw. food, diets and nutrition and its modulators



- Food system approach extends its *food-related* activities to socio-economic, environmental and food security & nutrition **outcomes**.
- It sheds light on inter-dependency between sub-systems: production, consumer behaviour, food security and the environment (e.g. food loss & waste management)
- > Food systems thinking points to **non-linear processes, feedback loops** and **tipping points** in the food system.
- It sheds light on root causes and trade-offs between different intervention strategies towards improved diets and nutrition
- Core objective is to find synergies and (most effective) leverage points (places to intervene) in the food system for improved nutrition
- The food systems lens enables thinking across the bubbles and beyond the silo (e.g. health sys., social protection sys., economic & trade sys., etc.)

Challenges of the Food Systems in the rapid Urbanizing World

1.1 Reduced access to diverse, nutritious, safe and affordable foods

- Food comes from regional local farms (short supply chain) vs. food imported from abroad (Long supply chain) – affect food quality and price, etc.
- Food environment affects people's food choice
 - **Traditional** (wet markets, farmers' markets, grocery stores; homegrown and home-made foods, traditional restaurant)

VS.

Current Trends: (*supermarkets, convenience stores, fast/ convenience foods, street foods, online order*).

- Fresh fruits & veg are more costly than ultra processed foods in cities.
- Food marketing & advertising vs. food labelling, food regulations & legislation, consumer education.







Challenges of the Food Systems in the rapid Urbanizing World



Typical slum-like tenenment housing in Hong Kong (Source: soco.org.hk)

1.2 Reduced access to diverse, nutritious, safe and affordable foods:

- Limited/lack of kitchen/ cooking facilities in urban households an increasing trend.
- Street foods low-cost and convenient *ready-made* foods A significant food source – popularity goes beyond low income groups
 - However, diet quality and food safety major concerns
- A challenge to improve quality of foods provided
 - The vendors often with limited schooling/ education.



1. Consequences of poor diet quality and inadequate food safety:

- Over-consumption foods and processed foods
 - high in fat (*esp., saturated and trans-fats*), salt and sugar.
 - Low in nutrient-rich foods: fruits, vegetable, legumes & pulses, nuts & seeds.
- Increased prevalence of overweight, obesity; diet-related non-communicable diseases (diabetes, high blood pressure, stroke, cardio-vascular diseases, colorectal cancers, etc.)
- Increased risks of food borne illnesses and infections esp. foods purchased from informal food sector:-
 - Lack of food safety & personal hygiene practices; lack of regulation, licensing, legislation and enforcement.



Contributions to the society:

- > Food security provide affordable foods at convenient locations for the urban poor in Asia.
 - reach out to the under-served 'food desert areas' anytime, selling in small units and sometimes offering credit.
 - Monthly income (%) spent on foods in the urban poor (Boonyabancha and Kerr 2015):

Nepal & Philippines (43.5%); Thailand (50.3%); Sri Lanka (51.9%)

- Employment opportunity attract unskilled labour (low and irregular income), low in education, especially women.
- Preservation of traditional food culture.
- Contribute to urban food economy & poverty alleviation
 - employment opportunity (social stability), food supply chains and food trade, logistics, tourism (street foods)



Challenges of Informal food vendors:

- victims of abuse. e.g. police harassment and arbitrary confiscation of merchandise, complicated registration & licensing, restrictions on trade location, unaffordable taxes and fees.
- limited access to public space, infrastructure, utilities and services.
- fail to recognize the informal food sector as part of the urban food economy making the sector invisible in official statistics for planning and investment.







Consider Informal Food Sector in urban food systems planning

- Consider to include formal and informal food systems stakeholders, recognizing both are crucial resources to address food security and nutrition with place-based solutions.
- Informal food sector in some cities are lacking regulation and control on food safety and hygiene, let alone healthy diets standards.
- The vendors: Quite often the most vulnerable, primarily women, refugees and displaced populations, since street food vendor require little start-up capital and no formal education.
- > Need inclusive engagement with street food vendors, consumers and relevant stakeholders for planning
- > Need investments and an enabling environment to make a difference.



Integrate informal food sector in urban planning.

- Better spatial planning for food outlets and food markets;
 - Promote shorter supply chains (localising food production in and around cities to reduce the environmental impacts of food transport and waste.
- > Easy of access to safe and nutritious foods by the poor households.
- Inclusive dialogue by engaging different actors and the community to plan and support positive changes to the food environment.



Make the (local) food system work for healthy diets

The following 5 questions may help:

What's the scope of the (real) problem?

Understand the real problem - move beyond symptomatic control to address the root causes of the problem. Targeting key actors to drive a system change

Who are involved and how?

Involve public, private and civil societies, etc. actors in a multi-stakeholder process (Inclusiveness). Also, engage multiple disciplines, linking technological interventions to behavioural change communication, etc.

What's the goal?

Think about the outcomes of the food system and how to achieve these: malnutrition, incomes, jobs, healthy environment, etc. (e.g. related SDG goals)

What's the effect?

Look for synergies between multiple outcomes: create a win-win for income, job, nutrition and environment, etc.

What has been done elsewhere?

Look for solutions and success stories in other food systems with similar problems and apply adaptation



FAO Resources related to Urban Food Agenda and **Food Systems**



Food Agenda, 2018

Urban Planning, 2018

Overview of Food Security and Nutrition 2018 – Accelerating progress towards the SDGs 2018.

Experts Report on Food Systems and Nutrition 2017

Food Systems, 2014

Thank You!

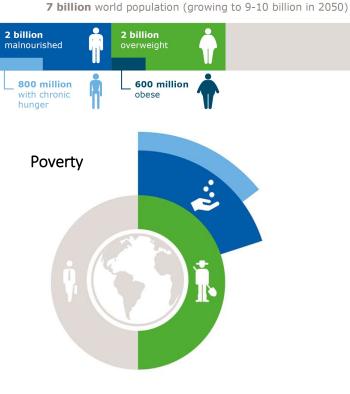




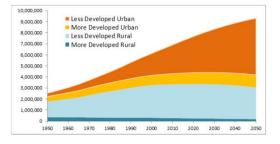


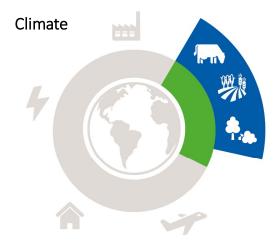
Food security challenges are more and more interlinked..

Nutrition



Urbanization





50%20%of the workingof people arepopulation is activevery poorin agriculture

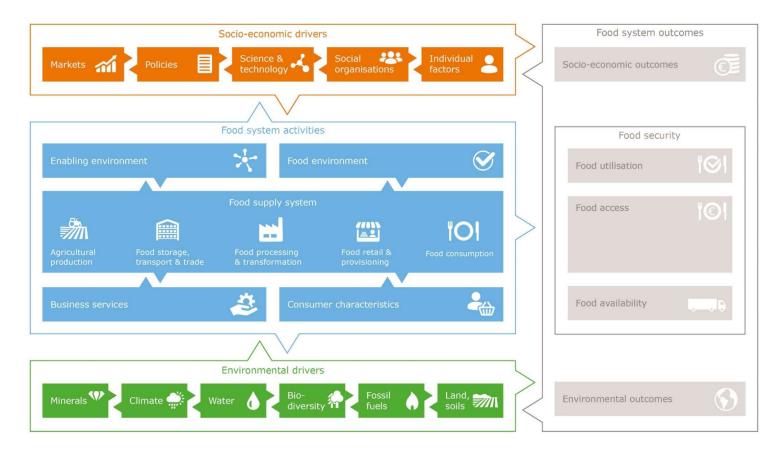
75% of the very poor live in rural areas

24% of the total global GHG emissions comes from the food system

20%

of the total global GHG emissions comes from agricultural production

Food systems thinking can help to navigate this complexity..





Concluding remark

A food system approach allows for a wider perspective on possible sustainable solutions for undertaking the triple challenge the food and agricultural sector faces:

- Ensuring food security and nutrition (globally and nationally)
- Using natural resources sustainably, while contributing to climate change mitigation and adaptation
- Providing a livelihood for agents along the food chain



Transforming Food Systems for Healthy Diets and Improved Nutrition

Moving towards **nutrition-sensitive food systems:** *a promising and sustainable way to address all forms of malnutrition*

A food system determines diet quality and consumer food choice
 Supplies nutritious foods, from farm to fork to promote healthy diets

> A nutrition-sensitive food system:

Uses a food-based approach to ensure food production and food supplies are diversified and nutritious



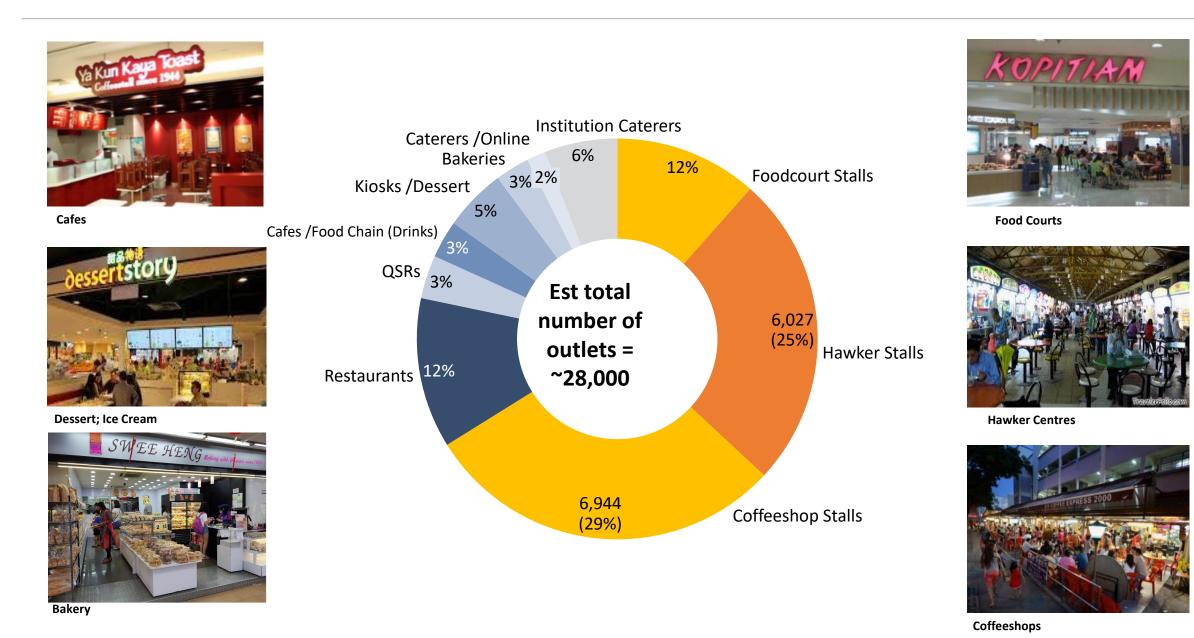
Healthy Diets in Informal Sector : Good Practices & Lessons learnt

Health Promotion Board , Singapore

Ann Low

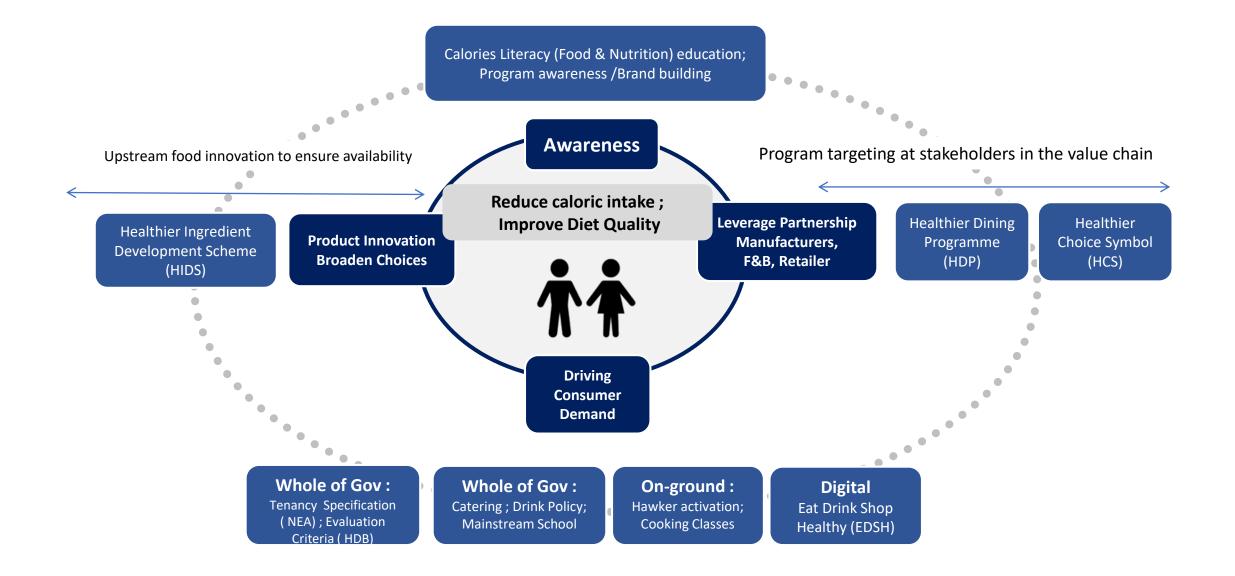
20 Aug 2019

Overview : Food service landscape in Singapore



Source : Euromonitor Report – Consumer Food Service (2017) ; Total SG outlets ~28,000

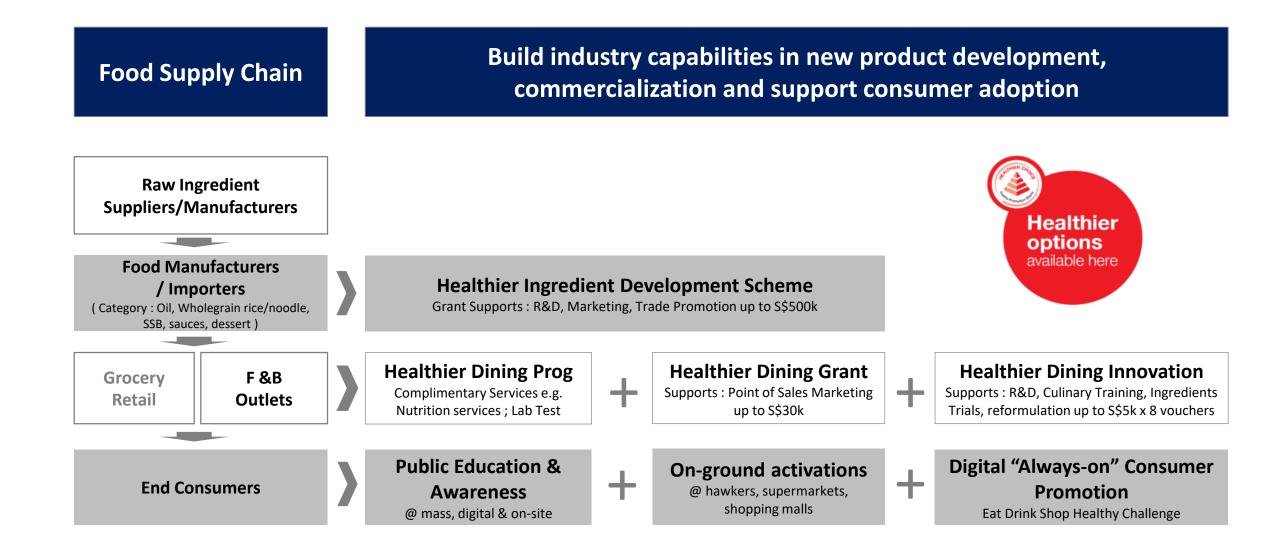
Eco-systemic approach to influence supply and demand of healthier options



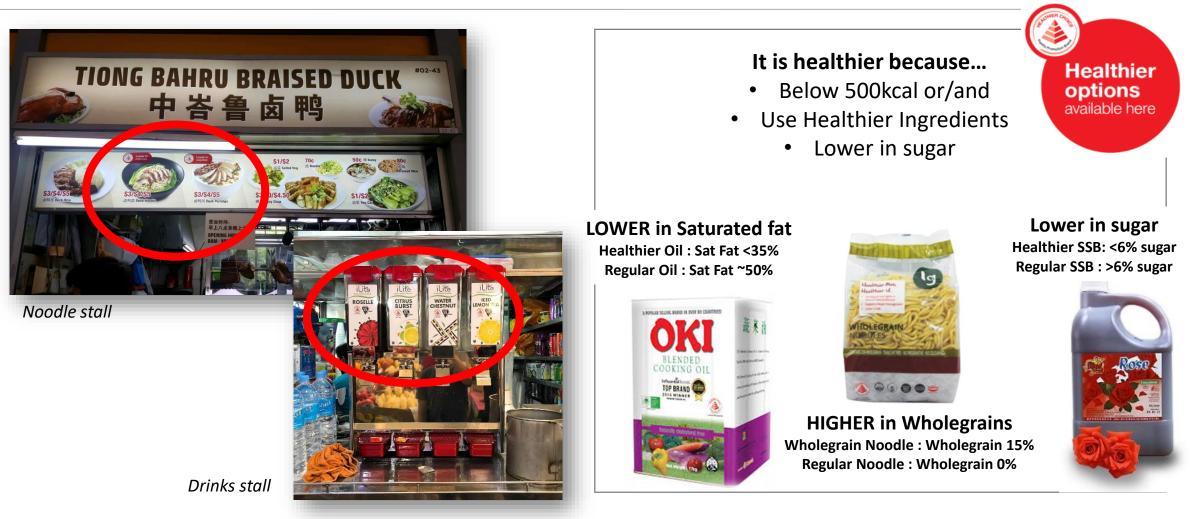
Multi-stakeholder partnership to make healthier options available and accessible



Food supply chain : Program design to target at different stakeholder



How can this bowl of duck noodle and drinks be healthier ?



Reduce calorie intake Identify food that is lower in calories (<500kcal) compared to other food Improve diet quality Select food cooked with healthier ingredients (oil in lower saturated fat or noodles/rice higher in wholegrains), drinks with no/lower in sugar

Generate Demand : How to increase adoption of Healthier Food and Drinks

Create awareness

with easy to identify Healthier Choice tag at front of house and on-site



Generate interest trial and purchase through continuous promotion Food sampling A TASTE OF WHOLEGRAIN Spin & Win with every purchase of healthier food or drinks



Generate buzz to encourage trial and build confidence amongst F&B operators



Where are we now...

Target : 40% of 13,000 stalls across hawker centres and coffeeshops with at least 1 healthier option

HPB pushing for more healthy hawker food options by 2019

TAN WEIZHEN tanweizhen@mediacorp.com.sc

SINGAPORE - By 2019, the Health Promotion Board (HPB) aims to have 40 per cent of the 13,000 hawker centre and coffee shop food stalls here offer at least one healthy food option double the current proportion.

It started the journey to that goal in December, when it extended the Healthier Dining Programme to hawker centres and coffee shops. More than 2.700 stalls across 60 hawker centres and 450 coffee shops have since come on board.

These include Bukit Paniang Hawker Centre and Tampines Hub Hawker Centre. The programme, launched in 2014, started with restaurants, cafes, food courts, food kiosks and caterers, with more than 1,600 participating outlets to date.

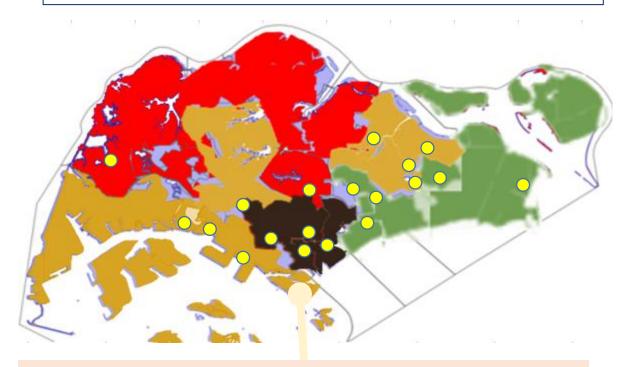
While touring the Bedok Interchange Hawker Centre vesterday, which is now on the programme. Sen- the food tastes better. Healthier food ior Minister of State (Health) Chee (is) good for health, but the flavour Hong Tat told reporters: "The main could be affected," he told TODAY.

"It's not possible. Those stalls with good business, like the zi char stalls, use a lot of unhealthy ingredients, so



Consumers can identify stalls with healthier food options through the labels at the stalls. These calories and below, compared with between 700 and 800 calories for other meals. PHOTO-HEALTHPR

gies the HPB has decide was heavy going for a v sons. First, it was a very many hawkers to chang of dishes they have dev many decades," he told As of March 2019, 7,400 (~50%) food and drink stalls in hawker centres and coffee shop offering at least 1 healthier option in their menus



100% Reach across all 114 Hawkers Centres





New Hawker Centres to serve healthier food Extract from NEA New Hawker Centre tender clause : " The Successful Tenderer shall work with the Health Promotion Board to implement the Healthier Dining @ Hawkers Programme at the Hawker Centre "



NEW HDB Coffeeshop tender evaluation criteria : "Participation in HPB Health Dining Programme. Award points to proposal with Healthier options available"

Early success ...

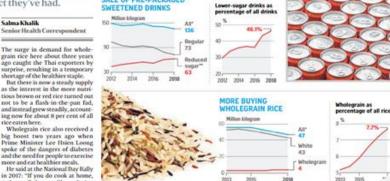
Progress on eating healthier, but there's room to do more

A push to eat more wholegrains and veggies. A blitz to cut down on oil and sugar intake. And now, the target is trans fats. Insight looks at the effort to get Singaporeans eating healthier and the impact they've had.

Salma Khalik

surprise, resulting in a temporary shortage of the healthier staple. But there is now a steady supply as the interest in the more nutri tious brown or red rice turned out not to be a flash-in-the-pan fad, and instead grew steadily, account ing now for about 8 per cent of all rice eaten here Wholegrain rice also received a big boost two years ago when Prime Minister Lee Hsien Loong spoke of the dangers of diabetes and the need for people to exercise more and eat healthier meals. He said at the National Day Rally in 2017: "If you do cook at home, make small changes, like replacing white rice with brown or mixed grain rice... The effect of eating white rice is almost like eating sugar and when you eat white rice. your blood sugar will shoot up." While it may have surprised peo ple that diabetes figured so promi nently in the PM's yearly address to the nation, the attention he gave it pointed to the high rates of this serious metabolic disease - three in 10 people aged 60 years and PHOs have been used in older have diabetes, he said - and food manufacturing for the urgency of eating better and exyears because they make ercising more to reduce the bur den of diabetes on the country. products shelf-stable And people were listen and give them a Over the years, in a melt-in-the-mouth taste. known for its delicious be hawker food, Singaporean In the 1970s, they were have been changing for the h thought to be a healthier Significantly more peop eat more whole grain a alternative to saturated fats. They were also sugar, thanks in part to inte forts over the past decade cheaper. But in 2015, the Health Promotion Board (H US Food and Drug Aside from diabetes, unh meals also push up rates of o Administration issued its which, in turn, increases final determination that other serious medical cos PHOs were not safe for such as cardiovascular di Even as Singaporeans are longer, their years of ill human consumption. have stayed at about 10 year





more than a decade, Mr Zee said

that Singapore, being a small country, could not move till bigger mar-kets did so. PHOs have been used in food nanufacturing for years because

they make products shelf-stable and give them a melt-in-themouth taste. In the 1970s, they ere thought to be a healthier alernative to saturated fats. They were also cheaper. But in 2015, the US Food and Drug Administration issued its final determination that PHOs were not safe for human consu

By Jan J. 2020, they must be totally phased out of all products.

Despite Singapore's small mar ket size, the board has managed to

ersuade local manufacturers to re-

Firms have come on board be-

ause the authorities are willing to

help, both financially and with ex-

pertise, handing out 67 grants un

fer the Healthier Ingredient Devel

oment Scheme to 42 companies. Changing a product requires in

vestment in research and develop-

ment. For example, creating palat

able wholegrain noodles and ver

micelli took several tries, as initial

attempts at adding wholegrain in-

gredients reduced the elasticity, reulting in noodles breaking easily

Similarly, getting people to

switch to wholegrain bread be-

came easier when manufacturers

meal flour more finely made the

bread taste as soft as white bread

while retaining the health b-

There are now my

products made

gredient-

covered that milling the whole

ng to have that pyramid sym

"Manufacturers work hard to get

There are now over 3,500 HCS

As six in 10 people here eat out at

has also worked with food outlets

including hawker stalls, to offer

With 2,400 food and beverage

operators, hawker centres and cof-

fee shops - which, among them

have more than 9,600 outlets - the

HPB is ensuring that eating

healthy is an easy choice people

The half a million healthier

cooked meals sold every day are a

can make, whether they eat out or

healthier meals

cook at home.

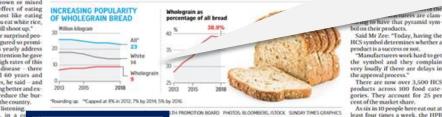
sign that people agree.

salma@sph.com.sg

ers are clam

when cooked.

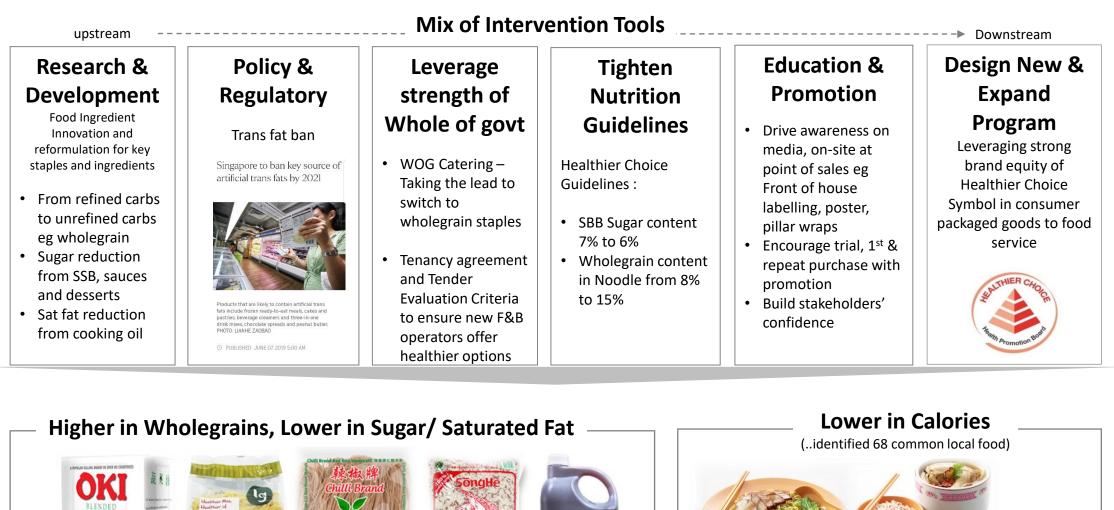
imulate some of their products to healthier versions.



			Carrier Proprietations and Proprietation of	contraction residence international sector sector and
ĥ				
5				
	The Government is trying to	healt	ly if the options are not read-	The latest move is the total ban
N.	bring this down with healthier life-	ily av	lable. Similarly, manufactur-	on partially hydrogenated oils
5	styles so people here can enjoy	ers c	offer healthier foods, but	(PHOs), which contain unhealthy
F	their longer lives in good health.	won	o so if there is no demand.	trans fat, from June 2021,
ė	The HPB's chief executive offi-	"Se	we had to encourage de-	This is expected to save lives, as
	cer, Mr Zee Yoong Kang, said Singa-	man	while ensuring supply is	trans fat is 10-15 times worse than
v	pore probably has one of the most		available."	saturated fats, which raise total
έ.	comprehensive food strategies in		n the one hand, it exhorts	cholesterol, both good and bad.
ŝ.	the world, using both regulation	peop	to eat more vegetables and	The trans fat that is created in
5	and promotional efforts, and work	whol	rains, less sugar, salt and oil;	the partial hydrogenation of oil
6	ing with the public as well as manu-		other, it has been urging re-	both raises bad cholesterol and
a.	facturers.		ation of food products to re-	lowers the good.
8	He said: "There is no point en-		is, using regulation where	While the detrimental health ef-
	couraging people to eat more	nece		fect of PHOs has been known for
	the second burble to car more			the state of the s

"Singapore probably has one of the most comprehensive food strategies in the world, using both regulation and promotional efforts, and working with the public as well as manufacturers."

Build a Healthier Food eco-system with a Comprehensive Mix of Intervention Tools



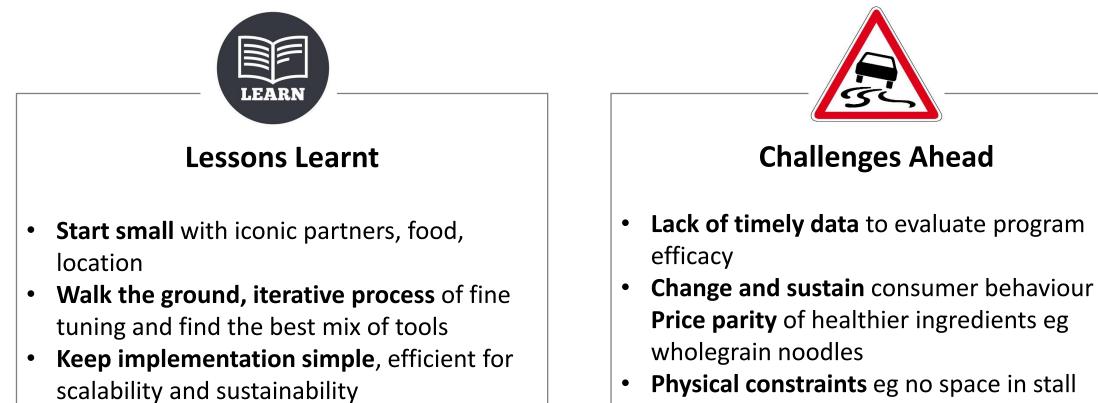
Healthier Ingredients



Leverage on key stakeholders strengths and

build industry capabilities

٠



Physical constraints eg no space in stall



www.hpb.gov.sg

- Healthier Choice Symbol Program & Nutrition Guidelines
 - Healthier Dining Program & Nutrition Guidelines
 - Healthier Ingredient Development Scheme



How healthy is hawker food ?

Produced by Channel 5 highlighted HPB's challenges in getting hawkers to serve wholegrains on the ground, as well as success stories, and it is possible to have healthier hawker food



https://video.toggle.sg/en/video/series/talking-point-2018/ep36/748497

Thank you

Informal Food Sector in Bangladesh

Bangladesh Food Safety Authority

Presented by: Faria Shabnam (WHO-Bangladesh)

August 20, 2019

Formal and informal Food business in Bangladesh



Informal Food Sectors in Bangladesh

Visible activities relating to the informal food sector are:

- Food production (urban and periurban);
- Catering and transport;
- The retail sale of fresh or prepared products (e.g. the stationary or itinerant sale of street food)



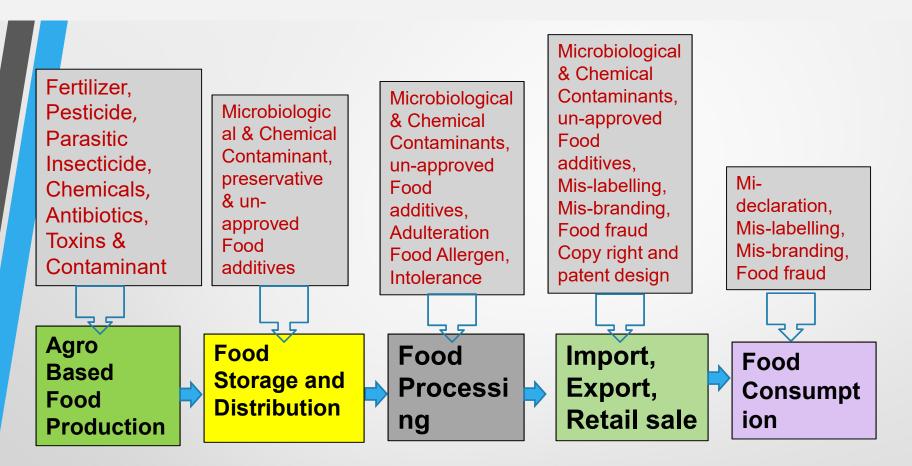
Around 18 ministries with their allied department and 334 local govt. Bodies(city corporation/pourashava)

Functions of BFSA



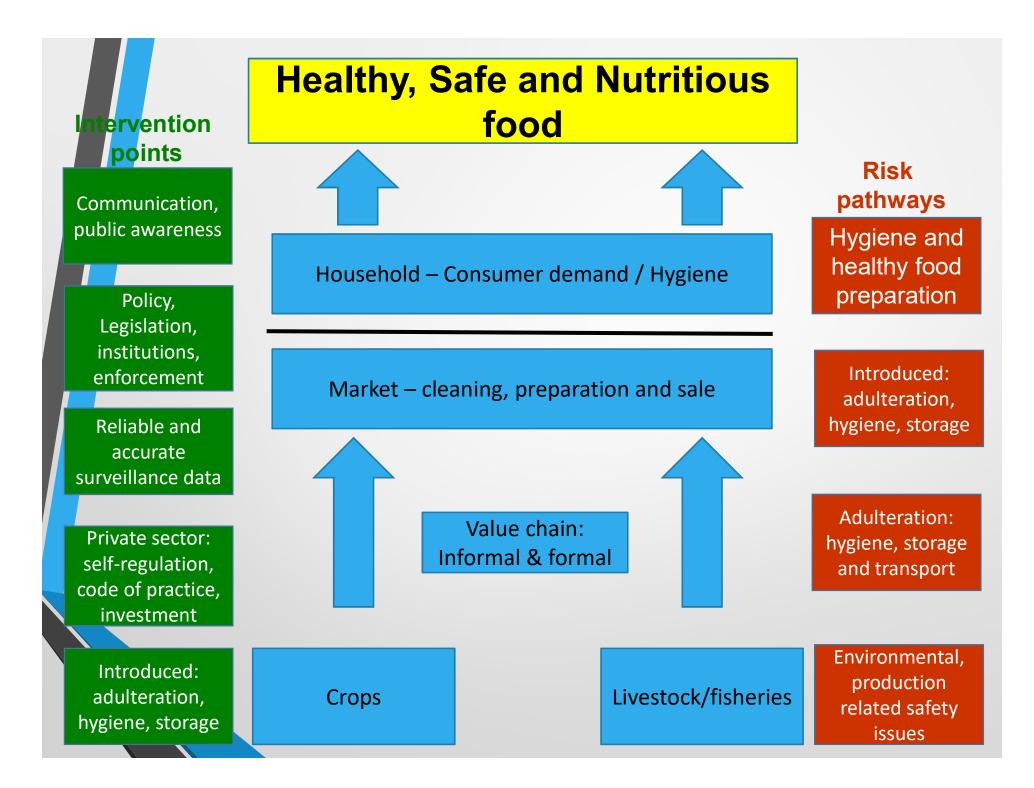
- Food safety Regulation Standard Setting
- Coordination Enforcement
- Food Laboratory Networking
- Data collection/Monitoring
- Science-based Policy Advice
- Food Safety Awareness
- Training for Food safety Inspectors/food handlers

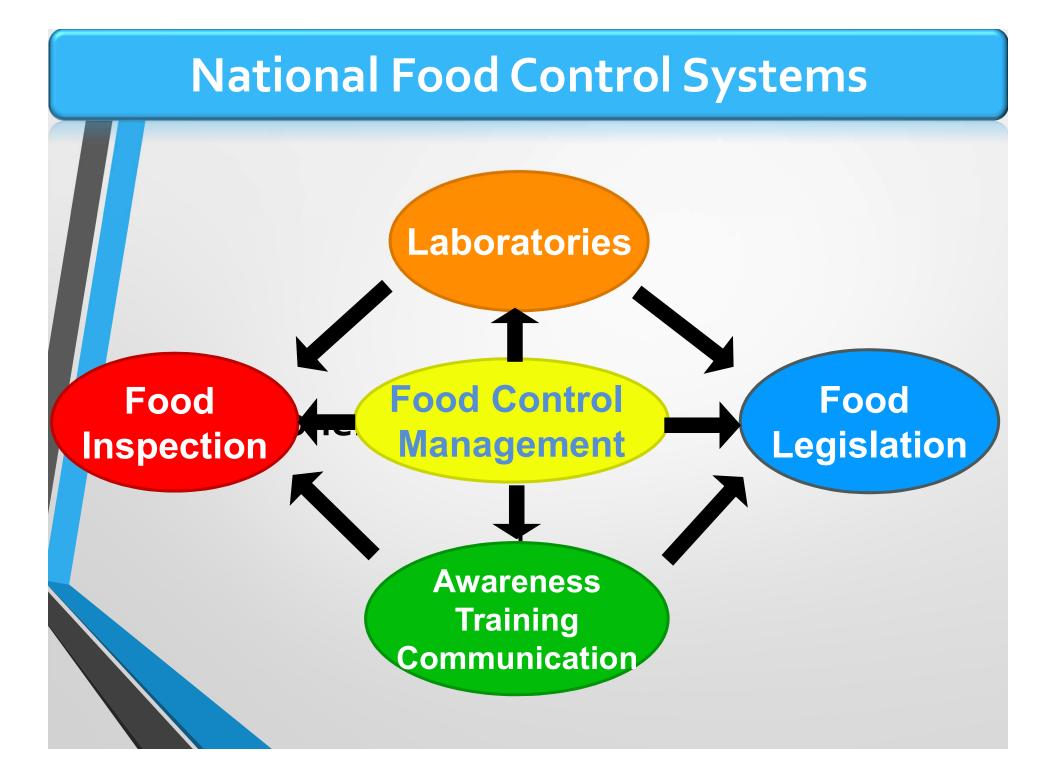
Food Safety concern in formal and informal sectors



- Well coordinated Food Laboratory Networking is required for Testing
- Implementation of GMP/HACCP/GAP/FSMS, Good Hygiene Practices, etc.
 throughout the entire food chain.

Setting of Food safety standards, Rules, Regulations, SOPs, etc.





A New Breed of Food Cart Is Improving the Health of Millions of People in Dhaka the UN, the Dutch and two city governments teamed up to make street eats safer





Surveillance and Monitoring of Informal food sector



Authorised Officers

Safe Food Inspectors
Inspection of Food Premises

Taking Food Samples

Seizing, Detaining and Destruction

Investigation of Complaints

Food Analysts
Investigations

Food analyses

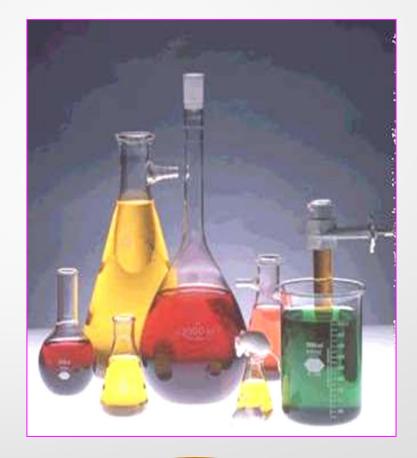
Food Court – powers of prosecution

Food

Inspection

Food Surveillance and Monitoring

 Chemical Contaminants
 Microbiological Contaminants
 Veterinary Drug and Pesticide Residues
 Food Adulteration



Food Laboratories

Challenges

- Knowledge gap
- Traditional practice and food habit
- Multiple regulatory agency and laws
- Worsening traffic and space constraints
- Lack of fund allocation
- the reluctance of educational institutions in Dhaka to allow vendors on their grounds.

Recommendations

- Establish a dedicated wing of under BFSA to supervise, inspect and monitor of informal food vending
- Inaugurate recognitions and hygiene grading system
- Establish registration system for all informal business operators
- Appropriate and effective food vending structures maintaining uniformity and desired standard
- Intensive capacity development programme
- Awareness programme for vendors and customers
- Effective involvement of print and social media Effective coordination

Recommendations for informal Food sectors:

- Establish a dedicated wing under BFSA to supervision, inspection and monitoring of informal food vending. In addition, take country-wide program to aware them through 5-keys to safer food communications materials.
- Inaugurate recognitions and hygiene grading system with a view to motivate them and ultimately this will help to create food safety culture.
- 3. Establish registration system for all informal Food business Operators
- 4. Appropriate and effective food vending structures maintaining uniformity and desired standard
- 5. Micro-credit programs to provide necessary financial support may be introduced
- Intensive capacity development programs with emphasis on self-regulated hygiene sanitation program
- 7. Food safety awareness program for both vendors as well as the general consumers
- 8. Awareness building program on proper food vending and food safety.
- 9. Effective involvement of Electronic, print and social media
- 10. Need effective collaboration with all stakeholders, e.g: Food Safety Authority, LGED, Dhaka City Corporation, Institute of Public Health, relevant Universities, Local Government and Engineering Department and Consumers Association of Bangladesh, Bangladesh Food safety Forum (BFSF) and many take up the responsibility.



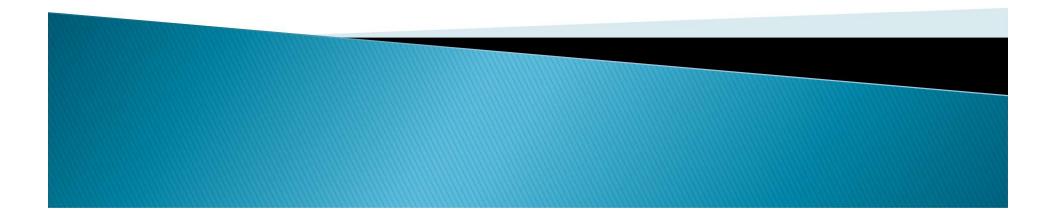




WHO/FAO Inter Regional Meeting to Promote Health Diets through the Informal Food Sector

Bangkok, Thailand 20-22 August 2019

Dr. VEAL CHANDARITH MoH Ph. CHHIM TONY MoH





COUNTRY PROFILE Demographic



COUNTRY PROFILE Cambodia Population

Total Population (July 2019)***	15.2 Million		
Male/Female Ratio*	0.95 male(s)	/female	
Death Rate*	7.4 deaths/1,000 population		
Birth Rate*	22.5 births/1,000 population		
Life Expectancy*	65.2 ys	M = 62.7 ys	
		F = 67.9 ys	
GDP Per Capita (2018)**	USD 1,476		
Source from: * 2018 World Fact Book			

Food safety policy and legislation in *Cambodia*



There are 6 ministries concerned with food safety management.

- 1. Ministry of Agriculture, Forestry and Fisheries (MAFF)
- 2. Ministry of Industry and Handicraft
- 3. Ministry of Commerce (MOC)
- 4. Ministry of Health (MOH)
- 5. Ministry of Tourism (MOT)
- 6. Ministry of Economy & Finance (MEF)



The ministry of Agriculture, Forestry and Fisheries

- Manage the safety and quality of Agriculture products
- Control slaughtering operations
- > Animal health authorities
- Assess of pesticide formulation and pesticide residue

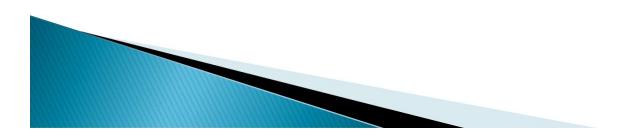


The ministry of Industry and Handicraft Sub-degree 12 (02-02) National Standards

- Develop the national standards in order to improve the quality of local food products
- Control on quality in food processing and manufacturing
- Register labelling of pre-packaged food products which must conform to standard CS 001:2000
- Inspect/ monitor the processing foods samples on microbiological and/or chemical

The Ministry of Commerce Sub-degree 54 (09–97) CAMCONTROI

Inspecting and repression goods with fraudulent while being in circulate at the market



The ministry of Health Sub-degree 67 (10-97) Food Safety

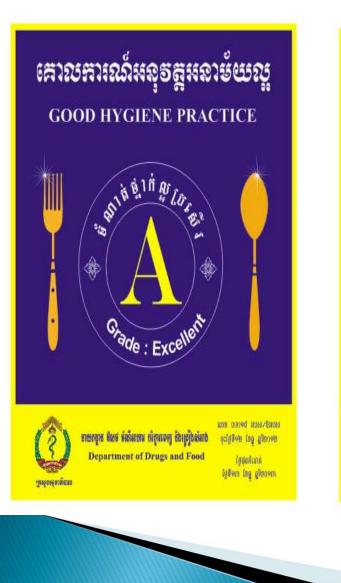
- Control on food safety and management
- Monitor on microbiological and chemical hazards in food and food borne disease
- Conduct health education on food safety for the public and school children
- Check on food supply and food control chain in end used (Table).



Sample of Certificate

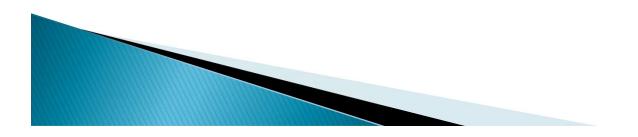


Sample of Logos





Related to the Street venders foods



Food Safety Activities

In The City/Municipal

The officials in charge of food safety promote and training food safety to the venders, food handlers

- Proper hands washing
- Personal hygiene
- Leaflets



Coordination

Ministry of Health

Between ministries of health, municipal/city

- Draft street food legislation
- Training to the trainers some of officials in charge of food safety in the city/municipal
- Establishment check list for monitoring street venders foods



Ministry of Health

Part 1(04 Jan 2017 to 30 March 2017) & Part 2 (27 Nov 2017 to 27 April 2018) 3 focal zones Food Safety Bureau Officials Department of Drug and Food (DDF), Officials in The City/Municipal and Pharmacy internship students conducted the food hygiene and safety surveillance. The officials and students were trained

- Filling of the surveillance questionnaire
- Identified samples and how to collect the samples methodology used to select samples and test kits
- How to storage, transport and send the samples to the laboratory





Prepare training and mapping of students(21–23 November 2016), in order to collect food samples in street food, Phnom Penh





Activities students training, analysis(test kit) and collected food samples of food venders in Phnom Penh



Activities collected food samples of food venders in Siem Reap Province



Activities collected food samples in street venders, Preah Sihanouk Province



Test kit analysis to Borax, Formalin, Sodium Hydrosulfite, Coliform in food, water & ice and Cleanliness

≻Leaflets

Demonstration proper hands washing/personal hygiene

Demonstration how hygienic condition

- Foods preparations
- Kitchen equipment keeping
- Etc.



Possibilities/plans and Challenges

Expanding the food hygiene and safety

surveillance over the country

Training to the trainers about food safety in all cities/provinces

Public awareness of food safety in whole country <u>*Challenges*</u>

Officials in the City/ Municipal

- Numbers limited
- Overlap of working

- Retirements
- Lack of financial & transport supported

Conclusion

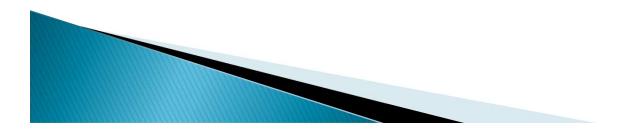
Improve food quality and safety in street food, it recommenced that

- All food handlers should adhere food hygiene requirements
- Food must be kept in hygienic manner and keep in appropriate temperature
- All kinds of vegetable have to wash with clean running water.
- All food contact surfaces include glass, plate, knives, chopping boards have to clean, disinfect and keep in hygienic manner.

Conclusion

- Food and drinks should be protected from contamination (microorganisms, toxic, chemicals, dirt, etc.
- Food handlers should be trained specially on subjects of personal hygiene and food preparation. They should follow appropriate hygienic food handling practices. The cook should always wear a clean white apron, and hair should be covered.

Thank you !

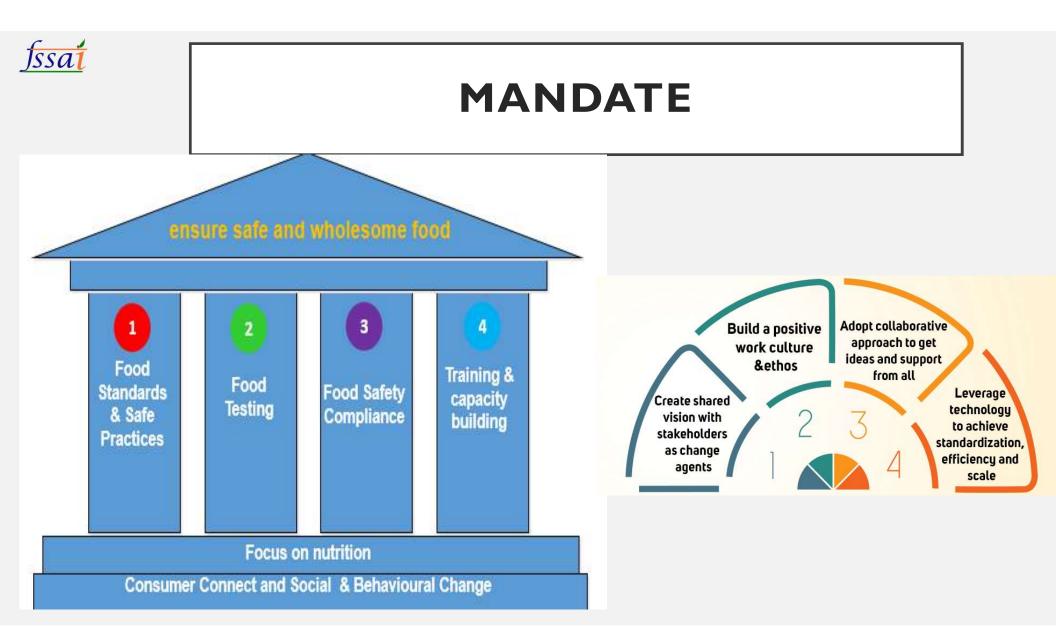




Inspiring Trust, Assuring Safe & Nutritious Food Ministry of Health and Family Welfare, Government of India

REGIONAL MEETING TO PROMOTE HEALTHY DIETS THROUGH THE INFORMAL FOOD SECTOR COUNTRY PRESENTATION -INDIA

MS. ROHINI SARAN, DEPUTY LEAD (FFRC) FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA MINISTRY OF HEALTH AND FAMILY WELFARE INDIA





EAT RIGHT INDIA MOVEMENT

Eat Safe	<u></u>		
I. Food Adulteration 2. Hygiene Rating 3. Clean Street Food Hub 4. RUCO 5. BHOG	Eat Healthy 7. Food Fortification 8. SNF@School 9. Reduce HFSS 10. Trans Fat Free India @75	Others II. Eat Right Campus I2. Training and Capacity Building (FoSTaC) I3. No Food Waste	
NetP	ProFaN		

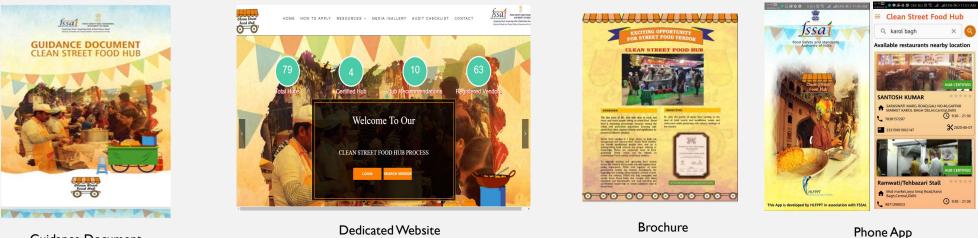


CLEAN STREET FOOD HUB (CSFH)

"A hub or cluster of vendors/ shops/ stalls selling popular street foods, 80 per cent or more of which represents local and regional cuisines and meets the basic hygiene and sanitary requirements. It excludes fine dining"

Objective:

To raise the quality of street food vending to the level of food courts and established hotels and restaurants while preserving rich culinary heritage of the country



Guidance Document

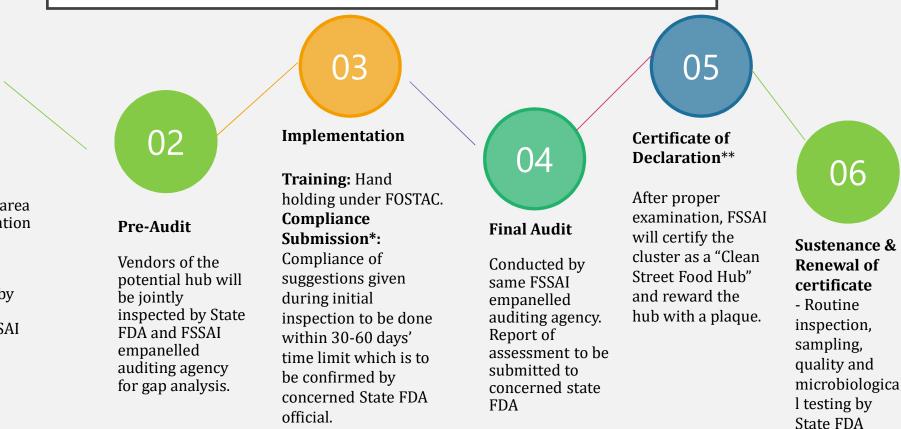
STANDARD OPERATING PROTOCOL



01

Issai

A geographical area with an aggregation of clusters of vendors will be identified and recommended by the local food authority to FSSAI for declaration



- Renewal of

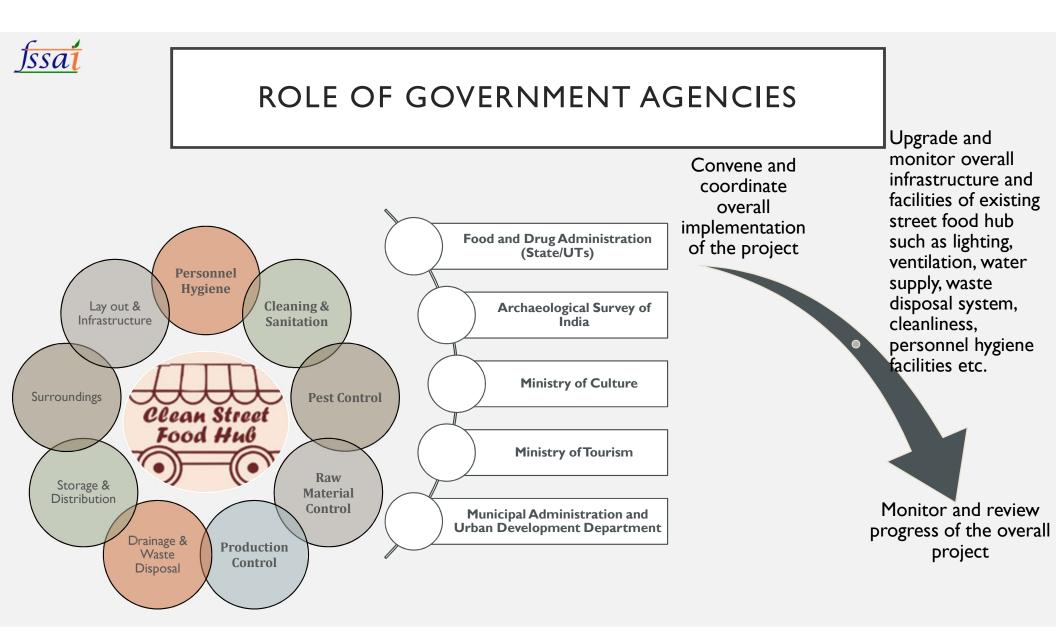
upto 2 years

certificate

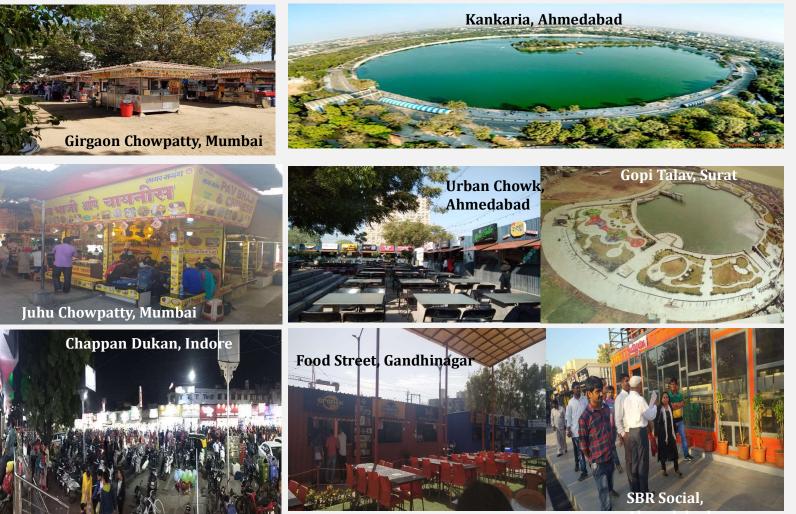
*Cluster will be delisted from potential hub list if final audit is not conducted within six months of pre-audit

** If 80% compliance is achieved in the pre-audit, the cluster may be certified as "Clean Street Food Hub" post pre-audit.





THANK YOU



medabad

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA



FOOD SAFETY FOR STREET FOOD VENDOR IN INDONESIA

Eni Gustina Sugeng Irianto Endra Muryanto Dr. Hera Nurlita Endang Widyastuti Abdul Malik Setiabudi Yuni Zahraini (MoH) (WHO Indonesia) (Jakarta Regional Health Lab) (MoH) (MoH) (MoH)







Law no.36 /2009 on Health			
Article 162 Environmental health efforts aimed at establishing the quality of a healthy environment, whether physical, chemical, biological, and social to enable more people to achieve the degree of health as high.		Article 143 The government is responsible for increasing knowledge and public awareness of the importance of nutrition and its effect on improving nutritional status.	
Law no.18 /2012 on Food			
Regulation no. 28/2004 on Food Safety, Food & Nutrition Quality			
Ministry of Health Regulation no. 2/2014 on Food Borne Diseases Outbreaks	Ministry of Health Regulation no. 1098/2003 on Hygiene and Santation of Street Foods	Ministry of Health Regulation no. 41/2014 on Balance Diet Guidelines	Ministry of Health Regulation No. 30/2013 The Inclusion Of Sugar, Salt And Fat Contents As Well As Health Message On Processed Foods And Fast Foods

FOOD SAFETY ACTIVITIES RELATED TO STREET VENDED FOODS

State of a state of

MONITORING & EVALUATION



Conducting assessment of the hygiene and sanitation conditions on food, kitchen, equipment and personal hygiene aspects—(MOH Develop assessment form)

CAPACITY BUILDING

Strengthening capacity building for street food vendor



FOOD SAFETY ACTIVITIES RELATED TO STREET VENDED FOODS



FOOD SAMPLING

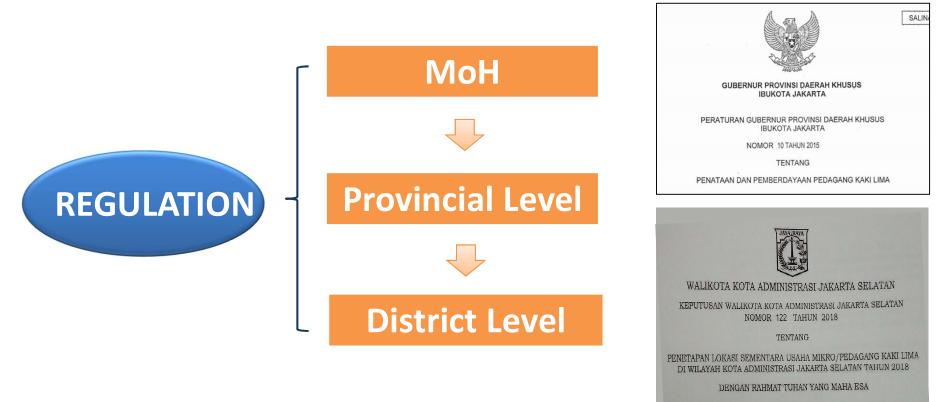
Conducting food sampling in detecting biological, chemical or physical contamination (MOH and Distric provide rapid test kit)

For vendor with no biological, chemical and physical contamination of food (MOH and district provide IEC material)

STICKERIZATION



COORDINATION BETWEEN MINISTRY OF HEALTH, MUNICIPAL CORPORATIONS AND OTHER SECTORS



WALIKOTA KOTA ADMINISTRASI JAKARTA SELATAN,

in Jakarta Province Trading and Micro Bussiness Agency Municipal Health Governm Agency ent Provincial Food Security Health Agency Laboratory PEMERINTAH PROVINSI DAERAH KHUSUS IBUKOTA JAKARTA Dinas koderasi jisaha kecu dan menengah serta perdagangai Food and Drug Agency Food safety is a shared responsibility

Intersectoral Colaboration for Healthier Street Foods Campaign

EXSAMPLES FOR PROMOTING AND SUPPORTING ACTIONS

and the second se

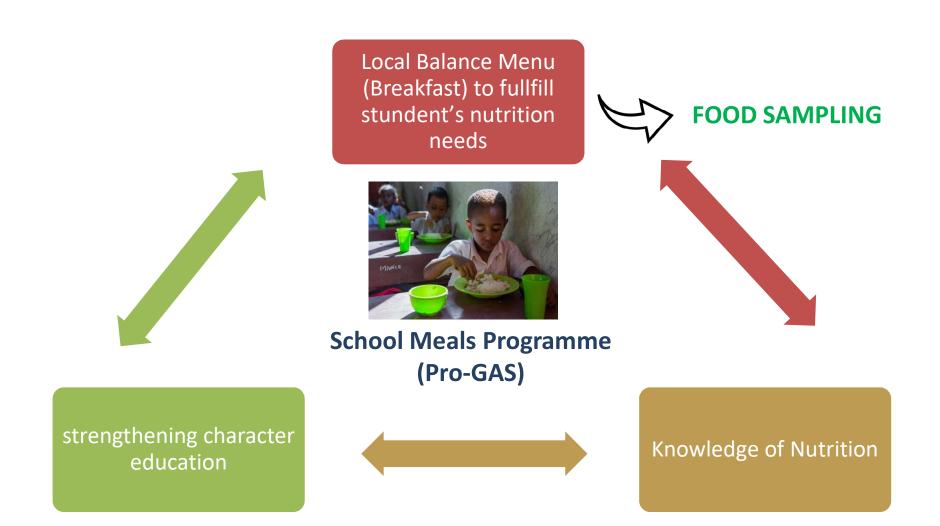
Challenges of "Street Vended" Food Safety

Microbial problem, unsanitary conditions, uses of unsafe-chemicals ; Incl. unsafe use of food additives



Conducting Food Safety education at school :

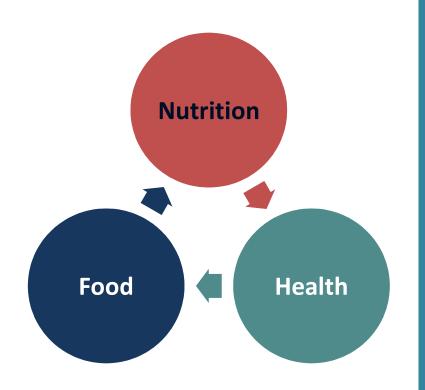
- Food safety campaign
- □ Mascot for food safety campaign for school children
- □ Training for food safety facilitator at elementary school
- □ Five Keys for Safer Food at school
- □ Website: <u>http://klubpompi.pom.go.id</u>



POSSIBILITIES AND CHALLENGES

and the second second

Food is the main factor in improving human health and environmental sustainability.



Indonesia need to establish national system of food safety; including

- 1. Strengthening implementation of regulation & policy
- 2. Build food safety infrastructure and Inspection System; assurance of compliance, Improvement human resources & standardized laboratory; provide clean water, clean ice, etc
- 3. Develop massive food safety education program for community, producers, consumers and stakeholders; encouraging street food serve healthy diet
- 4. Establish stronger partnership to improve funding; Corporate Social Responsibility , Centralization street food vendors
- Expand certification of food product; Implementation of "Halal Certification" standardization recipe & enclosing nutrition information



Thank You -Terima Kasih -Khxbkhun





W H O / F A O I N T E R R E G I O N A L M E E T I N G T O P R O M O T E H E A L T H Y D I E T S T H R O U G H T H E I N F O R M A L F O O D S E C T O R 2 O - 2 2 A U G U S T 2 O 1 9 , B A N G K O K

ENSURING FOOD SAFETY & PROMOTING HEALTHY FOOD AT FOOD PREMISES – MALAYSIAN EXPERIENCE



ZALMA ABDUL RAZAK & ZURAINI ADAM MINISTRY OF HEALTH MALAYSIA

EXAMPLES OF FOOD PREMISES IN MALAYSIA (FORMAL & INFORMAL)



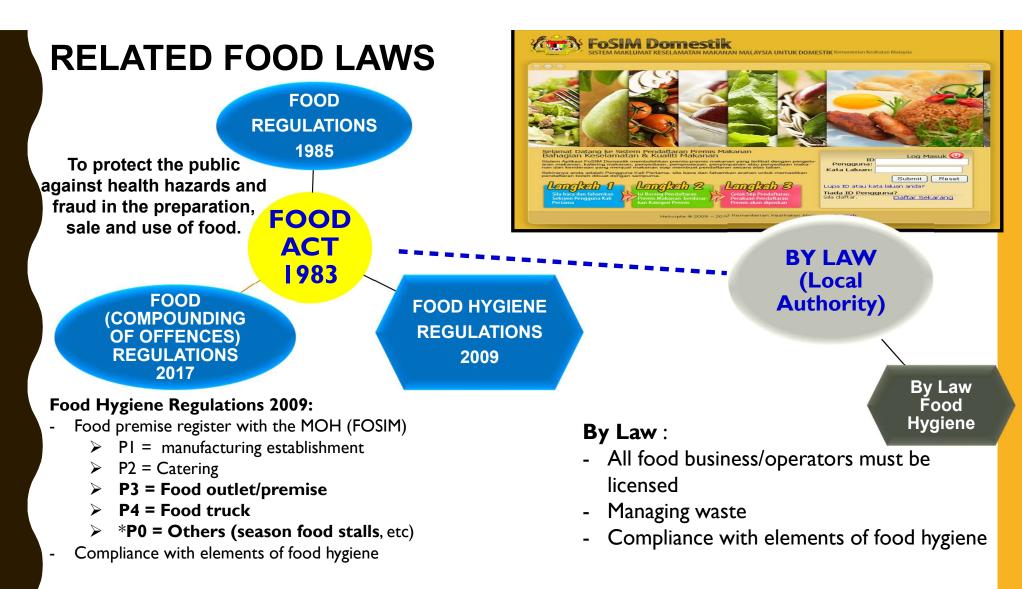




ENSURING FOOD SAFETY AT FOOD PREMISES



3

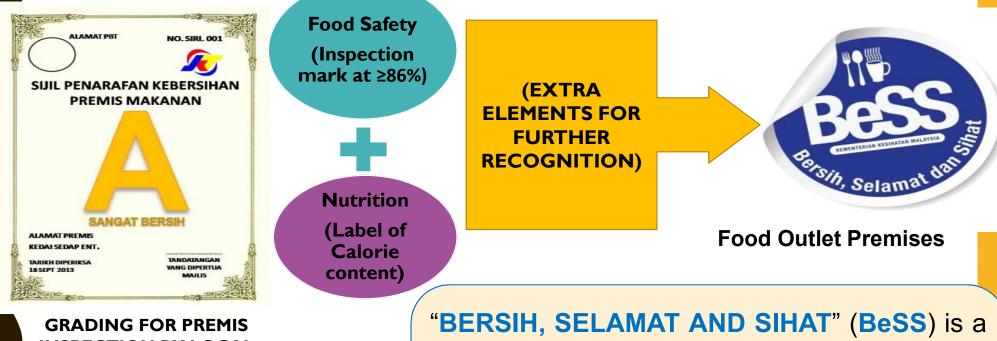


FOOD SAFETY STRUCTURE



- Similar checklist for inspection and data sharing
- Joint Operation and Enforcement Premise Inspection
- Joint Operation for bazar Ramadan
- Promotions : Accreditation BeSS / Premise Grading
 - Joint food safety carnivals

RECOGNITIONS FOR CLEAN PREMISES



INSPECTION BY LOCAL AUTHORITY / MOH (BASIC ELEMENTS) recognition given to food premises to encourage food premises operator to maintained the cleanliness of food premises, provide <u>safe</u> food and promoting <u>healthy</u> eating to consumers.

BESS

- BeSS recognition is a basic step towards Healthy Cafeteria as the requirements for recognition is not high which only involves Healthy Eating Promotion such as poster display, calories tagging and plain water provided.
- Up to Jun 2019, 6417 cafeterias has been awarded BeSS recognition.







PROMOTING HEALTHY EATING AT FOOD PREMISES



8

HEALTHY CAFETERIA

- Healthy Cafeteria is one of the strategies to provide an environment that promotes and supports healthy eating.
- Provides healthier menu options to customers.
- Mandatory for government sectors (administrative) in stages.
 Others voluntary.
- Up to August 2019, 240 cafeterias has been recognized as Healthy Cafeteria – government & private sectors, institutes of higher learning.









OBJECTIVES

General Objective:

To ensure quality foods (safe, nutritious & healthy) are served to consumers by recognizing the food premises (cafeterias) that pass a systematic evaluation process.

Special Objectives:

- To ensure availability of safe and healthier food choices to the public.
- To improve knowledge and skills of cafeteria operators in the provision of safe and healthy food.
- To facilitate the preparation of nutritious foods based on the Malaysian Dietary Guidelines and Recommended Nutrient Intake.
- To ensure that the Food Hygiene Regulations 2009 is adhered to in food preparation.
- To encourage cooperation between Ministry of Health and cafeteria operators in promoting safe and healthy food.







HTTP://FSQ.MOH.GOV.MY HTTP://WWW.FACEBOOK.COM/BKKMHQ BKKMPUTRAJAYA

Nutrition Division Ministry of Health Malaysia Level 1, Block E3, Complex E, Precint 1 Federal Government Administrative Complex Putrajaya, Malaysia

Email: nutrition.moh.gov.my Fb: BahagianPemakananKementerianKesihatan Ig: BahagianPemakananKKM Tel: +603-8892 4503



 $| \ |$

Healthy Cafeteria Evaluation Process



Pre-requisite Criteria

- 1) All food handlers is COMPULSORY to attend Food Handling Course & Healthy Catering Course and received Typhoid Vaccination.
- 2) Attain above 86% for Food Premises Hygiene Inspection.
- 3) Has a record of not more than one food poisoning incident for the pass one year.
- 4) Not selling snacks that contain flavors or colouring and instant noodles.
- 5) Not selling processed foods, such as burger patties, sausages and nuggets.
- 6) Not selling all kinds of pre-mixed drinks.
- 7) Not selling drinks (including carbonated drinks) with artificial sweeteners.
- 8) Not selling alcoholic beverages.
- 9) Not selling all kind of sweets/candy except for medicinal purposes.
- 10) Must sell at least I type of vegetable.
- 11) Must sell at least 1 type of fresh fruit.
- 12) Must serve plain water.



Criteria on Healthy Eating (passing marks - 86%)

- I) Serve healthier food options :
 - At least two choices of dishes from cereals & at least one with high fiber, eg. whole meal bread, brown rice and oats.
 - At least 20% of the total amount of side dishes are vegetables (excluding vegetables for garnishing, deep fried vegetables, creamy vegetable soups and salads mixed with dressing such as mayonnaise or thousand islands).
 - Available pptions for dishes prepared using healthier cooking methods, eg. steaming, boiling or grilling.
 - > At least one dish prepared using nuts or legumes.
 - Provide drink options prepared using low fat or skimmed milk.
 - Fried dishes are not too oily.



Criteria on Healthy Eating (cont..)

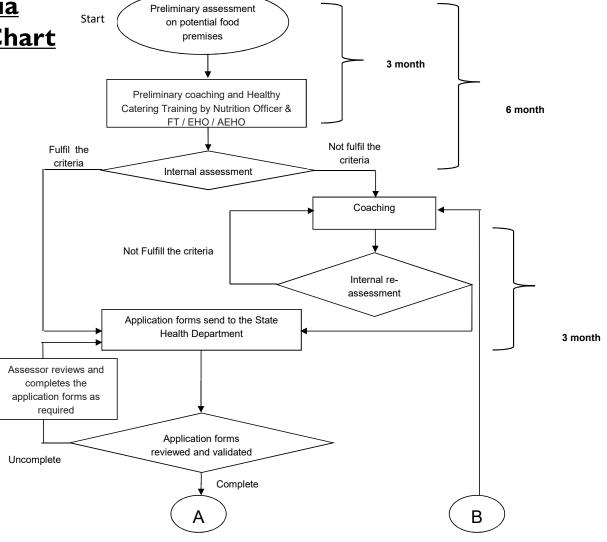
- > More vegetables are added to the dishes, eg. chicken rice served with more cucumber & tomato.
- > Not using MSG or commercially prepared flavoring stocks.
- > Sauces & salt are not provided at the dining table.
- > Does not sell all types of creamy or sugar coated foods.
- The food or drink is not too sweet.
- \succ The food is not too salty .
- > Provide low sugar drinks upon request.
- > Does not sell drinks prepared using cordials or premix (eg. 3-in-1 coffee).

2) Promoting Healthy Eating

- \succ Calorie Tagging.
- \succ Promoting healthy eating eg. via posters.

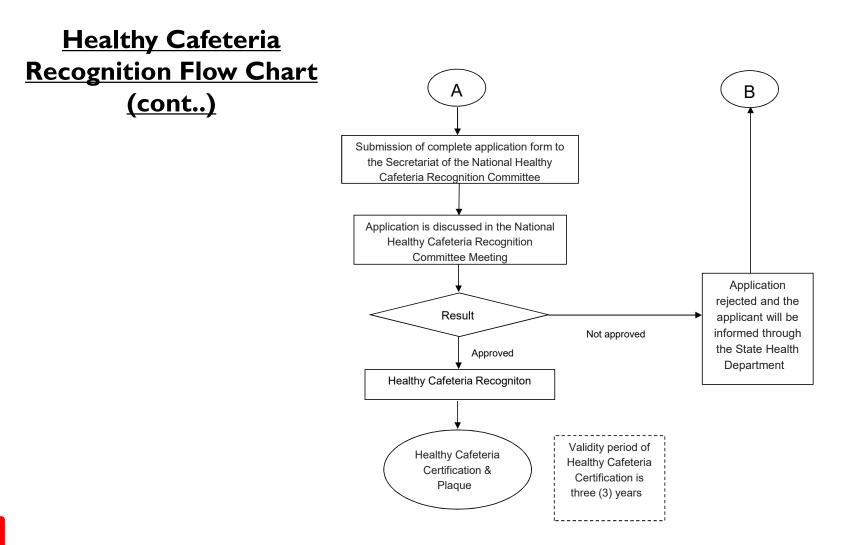


Healthy Cafeteria Recognition Flow Chart





16









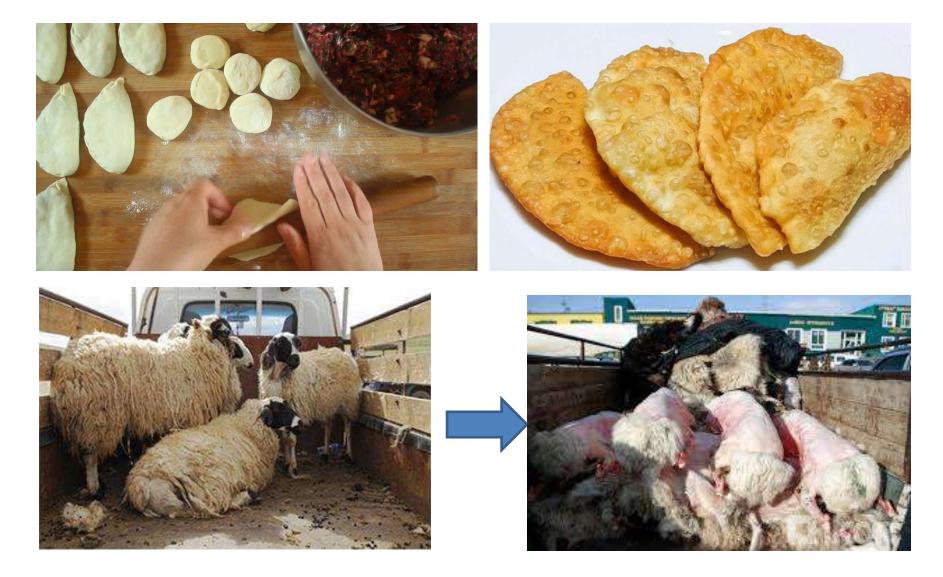
NATIONAL CENTER FOR PUBLIC HEALTH

Street vended foods in Mongolia



Winter temperature average -35*, While the summer average +30*

Retail trade from July to September



BARBECUE AND FISH











Fruits and vegetables











CURRENT POLICY DOCUMENTS OF FOOD SAFETY OF MONGOLIA

- . Food law (article 4 and 9,2012)
- 2. Law on Food product safety (article17,2012)
- 3. Law on Food for Infant and Young Child, (2017) updated on breast milk substitute
- 4. Law on Food fortification, (2018)
- 5. National nutrition program (2016-2025
- 6. Common rule commerce and service LAANBAATAR



COMMON RULE COMMERCE and SERVES ULAANBAATAR CITY

- To sell unqualified or expired products.
- To sell salads, products that expires within short period of time, unsealed or not fully done products at the food concessions. /khuushuur, cake and others etc./
- To sell products outside of the boundaries that are permitted by the districts /fruits, vegetables, barbecue/
- To sell meat products such as brisket fermented horse milk drink or boiled in public area.
- To sell milk, milk products or any kind of meat products in public places or open markets.

HEALTHY DIETS IN FOOD SECTOR IN HONG KONG:



EATSMART RESTAURANT STAR +

MANDY KWAN

SENIOR DIETITIAN, DEPARTMENT OF HEALTH, HONG KONG

20 AUG 2019

OUTLINE

- Introduce the "EatSmart Restaurant Star +" campaign
- Experience Sharing lessons learnt

ABOUT EATSMART RESTAURANT STAR +

 Previous was known as "EatSmart@restaurant.hk" campaign launched in 2008



- Aim:
- Educate, empower and enable the community to have easier access to healthier dishes when eating out;
- Encourage, empower and enable food premises operators to provide a wider choice of healthier dishes.





TO BECOME AN EATSMART RESTAURANT



Restaurant are required to

- provide at least 5 EatSmart dishes and highlighted by the relevant logos
- place decal near the entrance / prominent location



EATSMART DISHES



means that either fruit or vegetables are the sole ingredients of the dish or they occupy at least twice as much the amount of meat and its alternatives present in the dish.



means that the dish has less fat or oil, salt and sugar, meeting the "3 Less" requirement.





"3 LESS" DISHES

There are various requirements on ingredients, preparation, cooking methods and mode to serve

Means that	10.2 Definition of "g Less" Means that the dish has taken the following suggestions, used healther ingredients and cooking methods to decrease the content of far./ oil.sait.and sugar.					Suggestions	Examples of healthfor ingredients / cooking methods	Examples of less healthy ingredients / cooking methods
Cho	ices of dients / g Methods	Suggestions	Examples of healthier ingredients / cooking methods	Examples of less healthy ingredients / cooking methods	Sassonings	 Use natural ingredients to replace seasonings or souce which are high in soll or fat 	Gartic, ginger, spring onion, onion, temon or time juice, vinegar, parslay, five spices powder, mustand powder, star anise	Shrimp paste, fermenter soybean curd, salted blac bean, chicken powder, MSC ready-to-use sauces (e.; black pepper sauce, curry
	Nis / Solad g / Spread	 Use healthy vegetable of Use low- or reduced-fat salad dressing Use spread which is reduced-fat and without added sugar 	Com bil, dave bil, canbla bil, pesnut bil, sunflower bil, soybean bil, reduced-tat peanut butter, jam without added sugar	Butter, Lard, coconut oil, palm oil, margarine containing trans fat, shorbening salad dressing, condensed milk, jam with added sugar, peanut butter, chocolate spread, kaya, goose buor pabs	Properation of Ingredients / Coding	 Reptace quark sees-friend perparaments with blanching perparaments that hyper perparaments that hyper perparaments benchara set of the perparament benchara set of the perparaments of the perparaments of the perparament of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perparaments of the perpara	boling, skewing, griting boling, skewing sk-fring or pan-frying with small encount of oil	sahiyi vyster souce Deen-Privge fredukting the def mest prior to costing prasing in heavy statute becondenents over the defee
c	rains	 Use grains which is low in fat and without added sugar 	White bread, whole wheat bread, white rice, red rice, egg noodles, apagheti; rice vermicelli, Chinese noodles	bun", "pineapple bun", bun				
Veg	etables	 Use fresh, frozen or reduced-salt canned vegetables to replace pickles 	Fresh or frazen wegetables, cannod vegetables with reduced salt or after blanching	Preserved mustard greans, pickled vegetables, dried radish, preserved mustard, salbed mustard root, pickled mustard	Methods / Mode of Serving			
,	Fruit	Use fresh fruit or pure fruit juice lacopt coconut because it is high in saturated fat Use fruit products without added sugar	Fresh fruit, canned fruit in juice, dried and frozen fruit without added sugar, soo% fruit juice	Canned fruit in syrup, dried fruit and juice with added sugar, coconut and its products				
		 Use fresh / frezen lean meat to replace preserved meat 	Fresh or frezen lean beet, pork, fishes, seafood such as scallop, shrimp, crab.	Pork brisket, connective tissue under skin of pig (pig neck), falty beef, beef		serve at least one kind of "3 Less" "soup base"		
Mart Day	Mest, Poultry, Seafood,	Use non-fried plain bean products Use non-fried nuts without added salt and sugar	skintoss poulty, canned luna in wiker, tolu, svybaan sheut, plain vegetarian mest, dry-roasted and plain nuts	brisket, chicken wings, chicken pau, canned Luna In oli, Lunchoon meat, sausage, ham, bacon, neady-to-luse meat, Chinace sausage, sailted fish, sailted aggs, folly paif, find soybean dog tarilan meat, fried coshee mult, roashed nuts with added sail	Example of dishes qualified for the "3 Less" Logo:			
Eggs, Ba	an Products d Nuts				Chinese cutains: 4 Stowed chicken (skinless) with Chinese multhoom 5 Staand ogg with mixed pork and mung bean vermicell 4 Steamed soy bean curd with mixed vepetables 4 Sound fah		Vernicell with chicken in soup	
Dairy	products	 Use skimmed, low-fat or reduced-fat plain dairy products 	Skimmed or low-fat milk, milk powder, yoghurt, reduced-fat cheese	Full cream milk, cream, evaporated milk, condensed milk, creamer				
Beverage	es / Desserts	Pure fruit juce Boverages or desserts without added sugar (sugar or sweatener can be served separately)	Water, pure fruit juice, tea, closr soup, soy milk without added sugar, any beverages or desserts without added sugar, e.g. temon tea, soybean curd dessort and red bean sweet soup	desserts with added sugar. e.g. coconut pudding.	Scored radish with Jean boof shank Prior to granting the "3 Less" Logo to a dish, the 'Checklist for "3 Less" Dishes' see as final assessment.			see 10.3) must be complete

ONGOING SUPPORT

- Guidebook
- Briefing session
- Recipe vetting





MONITORING AND RENEWAL

MONITORING

unscheduled visit

RENEWAL

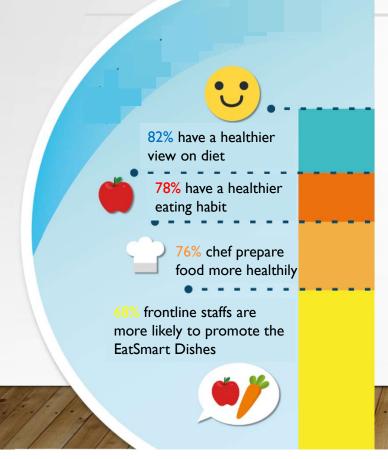
• annual visit before renewal

CAMPAIGN EVALUATION IN 2016

CAMPAIGN EVALUATION IN 2016 – SUCCESSFUL FACTORS: BENEFITS TO RESTAURANTS

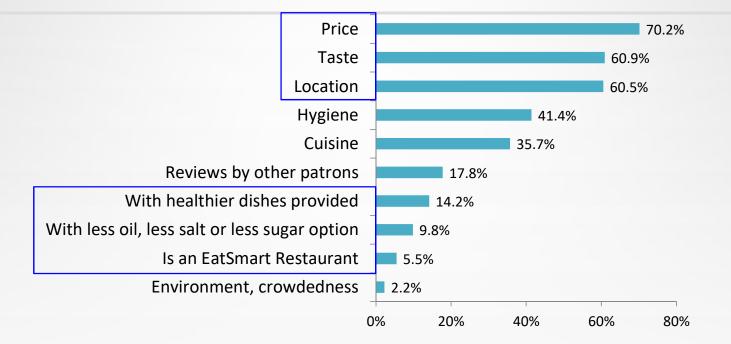


CAMPAIGN EVALUATION IN 2016 – SUCCESSFUL FACTORS: POSITIVE INFLUENCE ON STAFF



Positive feedback from staffs: Healthier cooking and eating

HEALTH IS NOT A PRIORITY CRITERIA WHEN CHOOSING RESTAURANTS



Base: All respondents excluding "None"

CONCLUSIONS FROM THE STUDY

Opportunities

• EatSmart dishes bring business to the restaurants

Successful factors

- Staff were fully aware of the requirements of ESR
- No difficulty in implementation
- Positive impact on staff ate healthier, cooked healthier

Challenges

 Price, taste and location take precedence over customers' demand for healthy eating

Need for new strategies

ENHANCEMENT IN 2019

"EatSmart@restaurant.hk" campaign



"EatSmart Restaurant Star +" campaign



EatSmart Restaurant Star+





EATSMART RESTAURANT STAR +



- Launched in May 2019
- Introduced a three-star rating scheme



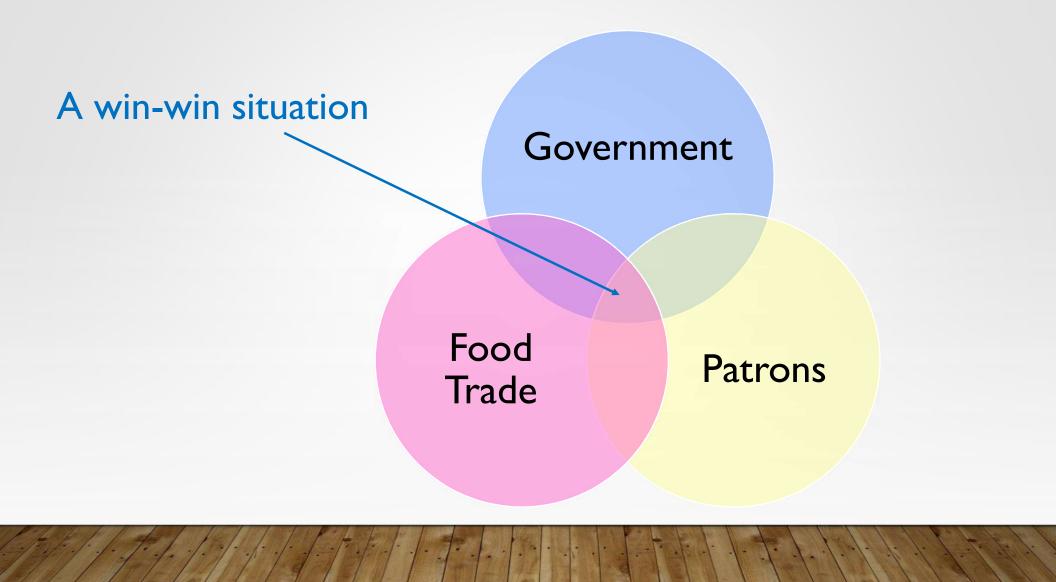
BENEFITS OF THREE STAR-RATING SCHEME

Accommodate different modes of operation in restaurants

greater flexibility and more participations

Provide an advancement opportunity to the restaurants

HOW CAN WE ACHIEVE A WIDER ACCEPTANCE BY THE RESTAURANTS?



I. GOVERNMENT LEADERSHIP

- Being the organiser to implement the campaign
- Establish partnership with trade and relevant stakeholders in the community
- Attached great importance to the "EatSmart Restaurant Star +" campaign



Director of Health⁷ Secretary for Food and Health

TOWARDS 2025: STRATEGY AND ACTION PLAN TO PREVENT AND CONTROL NON-COMMUNICABLE DISEASES IN HONG KONG



2. WORK WITH TRADE

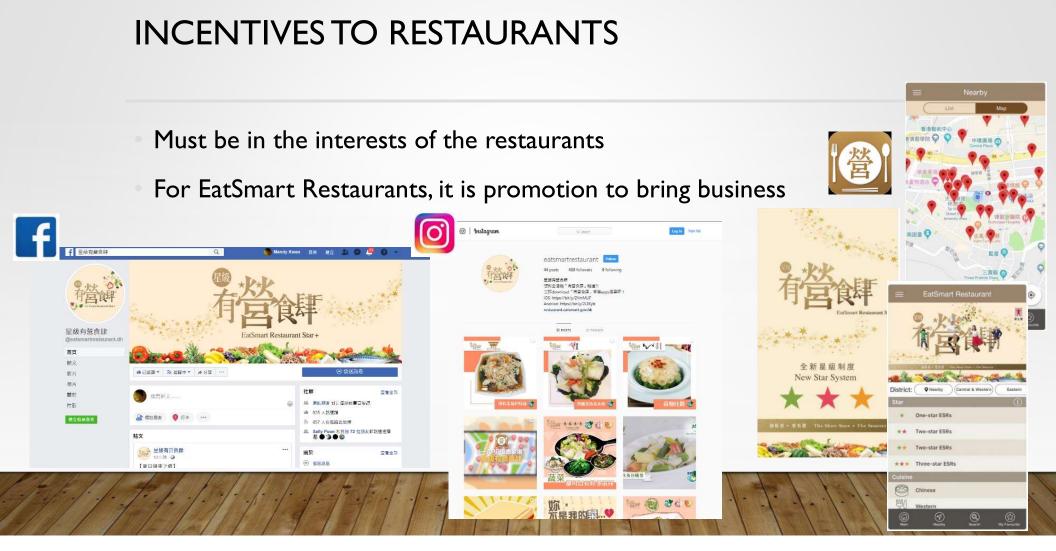
- Understand their concerns
- Assist to formulate practical strategies
- Be a pioneer
- Motivate others' participation



RECRUITMENT STRATEGIES

- Conduct on-site recruitment
- Complete the enrollment procedure at one-stop
- Provide tailor-made materials to promote the EatSmart dishes





3. INTERESTS OF PATRONS

Factors of making food choices



SMART STRATEGIES

- create significant impact
- are being practical to restaurants
- are being attractive to patrons

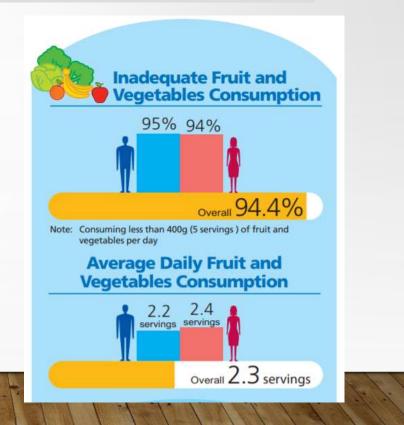


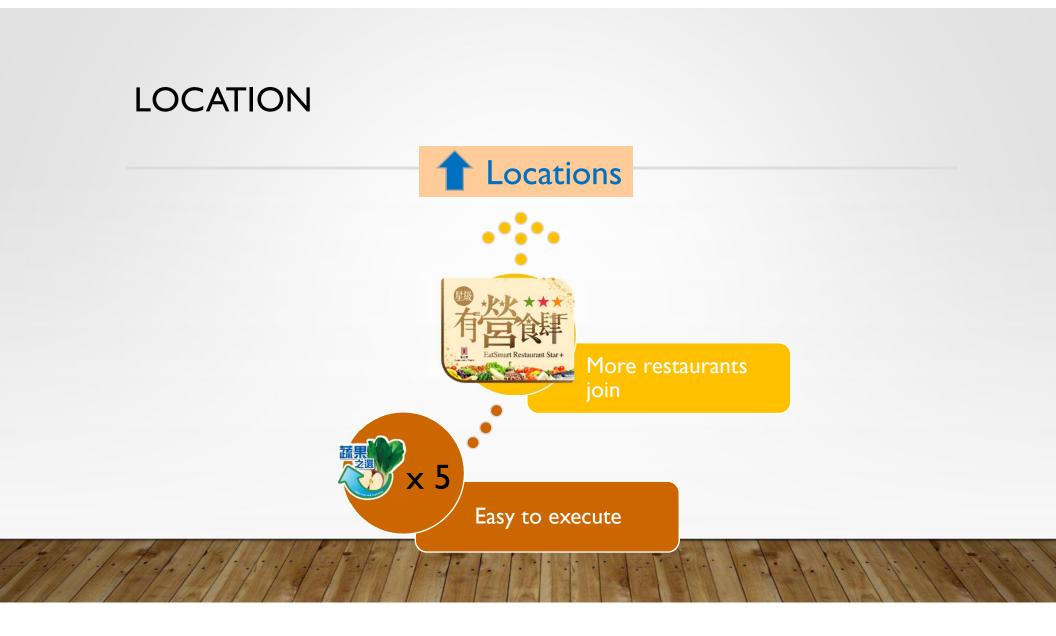
DISHES WITH MORE FRUIT AND VEGETABLES

- It is easy for restaurant to implement
- According to the Hong Kong Population Health Survey in 2014, about 95% interviewees did not have adequate intake of fruit and vegetables



"One-star EatSmart Restaurant" by offering at least five "Dishes with More Fruit and Vegetables"





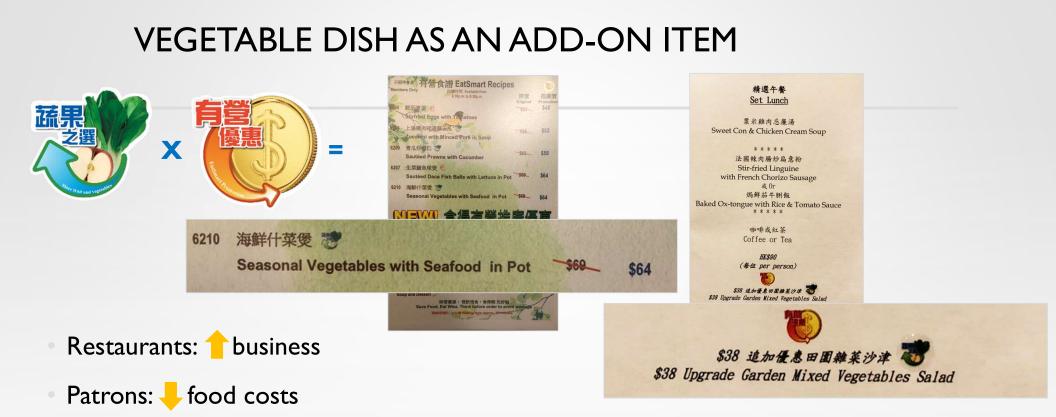
PRICE

EatSmart Promotion



• Gain the 2nd Star

 Encourages EatSmart Restaurants to provide special offer on the EatSmart dishes to promote their order



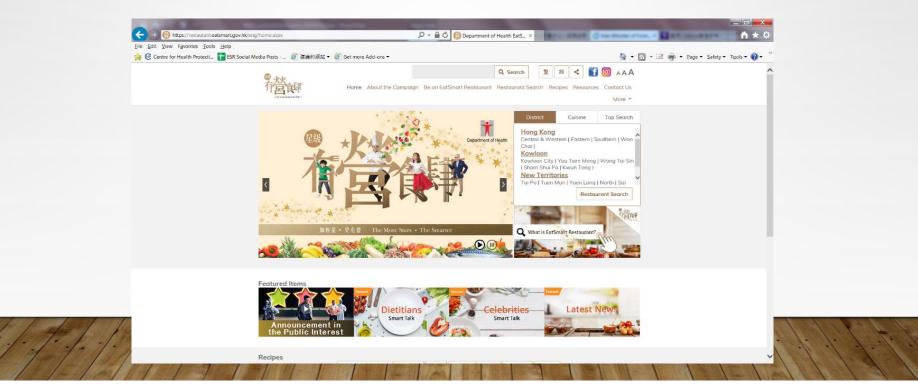
Health: 1 intake of fruit and vegetables

TASTE

Organise cooking demo and recipe competition to motivate new tasty healthy EatSmart dishes

FOR MORE INFORMATION

https://restaurant.eatsmart.gov.hk



THANK YOU!

Q: IN YOUR EXPERIENCE, HOW CAN FOOD VENDORS BE INCENTIVIZED TO IMPROVE HEALTHFULNESS OF STREET FOODS BEYOND FOOD SAFETY? SPECIALLY IN TERMS OF RAW MATERIALS AND QUALITY

- Attach great importance to the campaign
- Bring business to them
- Client-oriented, ensure that it is easy to implement

Street foods and healthy diets; a review of available information from Asia

Pulani Lanerolle, Indu Waidyatilaka, Maduka de Lanerolle-Dias Faculty of Medicine, University of Colombo, Sri Lanka "Ready-to-eat foods and beverages prepared and/or sold by vendors and hawkers especially in streets and other similar places (Food and Agriculture Organization 2018)."

Entrenched in habitual eating patterns of societies

Urban demand Maybe traditional current trends global & mixed

Methods Search strategy

Keywords searched initially within SEAR and then ASIA:

 Informal food sector, Street food, street vendors, hawker food stalls, eating houses, push carts, snack carts, meal carts, Taco stands, food truck, nutrients, Sodium, Ready to eat, Convenience food, Junk food, Urban food systems, Fast food, Diet quality, noncommunicable diseases, NCD, BMI, body mass index, obesity, overweight, hypertension, cancer, carcinoma, metabolic syndrome.

Detailed PubMed and Google Scholar search

 "street food" OR "street vended" OR "open air market" OR "street vendors" OR "street foods" OR "street vending stalls" OR hawker OR "food stall" OR "eating houses" OR "push carts" OR) AND (Asia OR Bangladesh OR Bhutan OR Korea OR India OR Indonesia OR Maldives OR Myanmar OR Nepal OR Sri Lanka OR Thailand OR Timor-Leste

Two independent researchers. Discrepancies resolved by a third

Upto 2018

STUDYTOOL USEDAloia 2013QuestionnaireBakshi 2017Interviewer basedBryan et al. 1992Analysis of foodCharkravarty & Canet 1996Interviewer based	LOCATION India India Pakistan India	POPULATION n = 204 (35 – 65 yrs) 150 vendors 150 customers 19 samples
Bakshi 2017Interviewer basedBryan et al. 1992Analysis of food	India Pakistan	150 vendors 150 customers
Bryan et al. 1992 Analysis of food	Pakistan	
		19 samples
Charkravarty & Canet 1996 Interviewer based	India	
		n= 911 (19 – 48 yrs)
Cho et al. 2011 Questionnaire	Korea	Adolescents n = 310
Dalal 2016 Questionnaire and F	G India	300 households
de Morais et al. 2018 Food analysis	Tajikistan & Kyrgyzstan (FEEDcities)	Four samples each from 62 food categories
Gupta et al. 2016 Questionnaire/recall laboratory analysis	India	Vendors n = 44 Snacks n = 49
Islam et al. 2018 Questionnaire based	Bangladesh	340 consumers
Kashyap 1987 Questionnaire based	India	69 vendors and 55 consumers
Kumar et al. 2017 Cross-sectional study	/ India	Adolescents n= 1652
Lachat et al 2009 24-h recall	Vietnam	Adolescents n= 1172
Naidoo et al. 2017Questionnaire Focus groups	Singapore	Adults, n = 1647 18 focus groups
Shaikh et al. 2016 Questionnaire	India	adolescents. N = 399
Solanki 2011 Food analysis	India	12 food items from each food zone
Sundaram et al. 2018 Questionnaires	Malaysia.	Univ. students n = 384
Tedd et al. 2003 Questionnaires	Sri Lanka & Bangladesh	Bangladesh: n = 114 Sri Lanka: n= 100
Wang et al. 2011 Questionnaires	China	Adolescents n = 3368

Consumer base

STUDY	CONSUMER BASE
Aloia 2013	2.7 times /year - 6.5 times /year
Charkravarty & Canet 1996	33% daily with 23% 1 - 4 times/week 75% of office workers
Cho 2011	62% of females and 40% of males ate 1 – 2 times/week.
Dalal 2016	17% daily, 29% weekly, 33% monthly
Kashyap 1987	25%, twice/ week, 21% weekly
Kumar et al. 2017	90% frequently, 37% often, 53 % sometimes
Naidoo et al. 2017	61 % daily – main meals. 5 times/ week – median frequency
Shaikh et al. 2016	1- 3 days / week - public school students 0-5 days / week - private school students
Sundaram et al. 2018	42 % of respondents who eat outside prefer street foods

STUDY	WHO IS THE CONSUMER?
Aloia 2013	Low SES: prefer street food to fast-food and restaurants
Bakshi 2017	Small + large cities. Low SES & students First choice for major meals.
Charkravarty & Canet 1996	Variable consumption (INR 40 – 400 / month)
Kashyap 1987	15-30% of total income Varied custom (businessmen, officers, office clerks, school teachers, daily-wage earners, children)
Naidoo et al. 2017	Younger participants less likely Men more likely Indians & Malays less likely compared to Chinese.
Shaikh et al. 2016	Public school students higher than private schools
Tedd et al. 2003	Main custom low SES

Demographics

A considerable proportion of the population depend on street foods

Those who rely on it do so frequently

Majority of adults studied were the working population.

More studies on adolescents

A greater proportion is of low socioeconomic status (SES)

Some are higher SES

What is the consumer's priority?

STUDY	FACTORS AFFECTING BUYING
Aloia 2013	Convenience, cost, social enjoyment, quality of meal
Bakshi 2017	Daily need Experience taste and flavors of a region.
Cho et al. 2011	Low cost (21%), time saving (6%), <u>accessibility</u> (32%), ready to eat (23%)
Dalal 2016	Taste (48%), <u>quick (</u> 13%), low cost (29%), socialise (23%). Negative factors: not hygienic (52%), spicy (27%), poor nutrition (21%)
Kashyap 1987	Cheap, <u>fast</u> , convenient, when shopping, early departure, difficult to prepare meals in advance, distance to work
Naidoo et al. 2017	Variety of cuisines under one roof, low cost, convenience, easy access, lack of time for eating and preparation
Sundaram et al. 2018	Variety of food available Relatively cheap

Factors that influence buying

Low cost, Convenience

Taste, Appearance

Variety

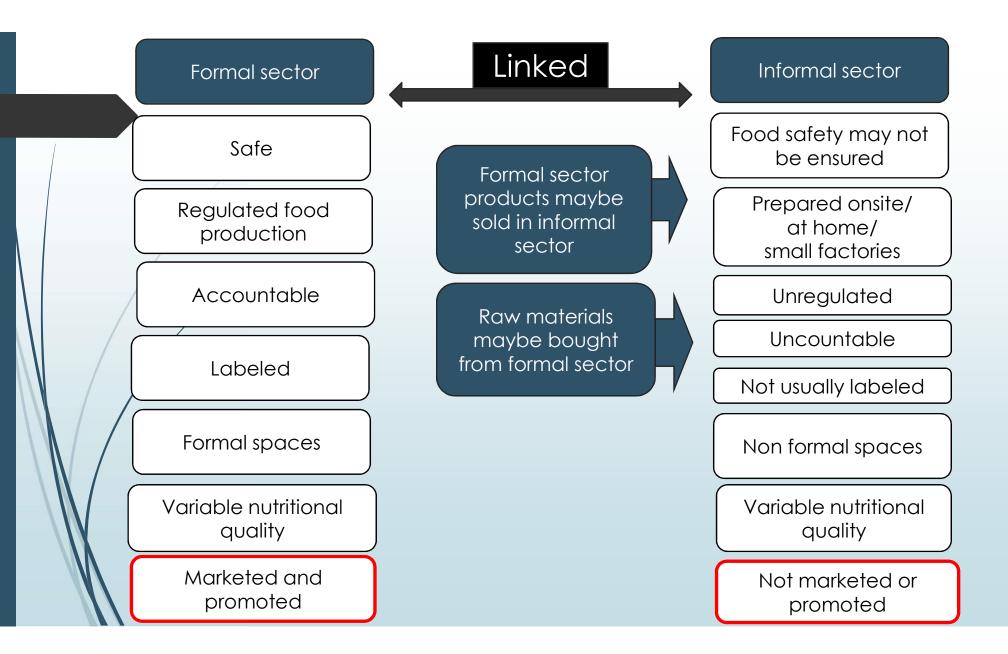
Social aspect – for entertainment

Food safety and nutrition are not major factors

Types of street food

STUDY	TYPES OF STREET FOOD
Aloia 2013	Samosa, channa batura, <mark>carrots and peppers</mark> served with white bread rolls, ddukbokki, sundae, and uhmok
Bakshi 2017	Tikki, chaat, samosa, kachori, dahi bhalla, golgappe, bhelpuri, channa chaat, fruit chaat, bread omelette, pakodas, burgers, chowmein, manchurian, spring rolls, pakodas, chholebhature, puribhaji, paobhaji, idli, dosa, sambhar, Jalebi, rasmalai, gulabjamun, falooda kulfi, lacche, ice cream, softies, jaljeerapani, lemon soda, milk shakes, cold drinks, sodas, hot gulab jamun, imarti, jalebi, halwa momos, tikki, burger, chhole bhature, chow mein
Bryan et al. 1992	Bhalla, Boondi, <mark>Iassi</mark> , <mark>salad</mark>
Charkravarty, Canet1996	Lassi, <mark>idli</mark> , <mark>dahi</mark> vara, <mark>dosa</mark> , <mark>vegetable curry</mark> , ghugn, alu kalb
Cho 2011	Ddukbokki, sundae, uhmok, hotteok, bungeoppand, toast
Gupta et al. 2016	Golgappe, mixture, freshly prepared kachodi, bhindi, sweet biscuits, salted biscuits rusk, pao, fan, mathri, <mark>moong dal</mark> , soan papdi, samosaa, kachori, bread pakora, bhatura

STUDY	TYPES OF STREET FOOD contd
Kashyap 1987	Peanuts, popcorn, roasted Bengal gram, samosa, chana bhatura, mutton-rice and <mark>dhal-rice/chapati-vegetables</mark> , muri, bhel, <mark>cut sliced fruits,</mark> sprouted Bengal gram, popcorns <mark>, cut fruits,</mark> soaked Bengal gram, fried peanuts and fried mung dahl
Solanki 2011	Snacks: pau bhaji, pani puri, bhel, kacchi bread, burger, pizza. Chinese food: Chinese rice, Chinese bhel. South Indian food: masala dosa, mendu vada. Punjabi food items: vegetable kolhapuri, paneer tikka masala
Tedd et al. 2003	Sri Lanka: wade, veralu pickle, cassava chips, murukku <mark>, gram</mark> , <mark>jak seeds,</mark> rotties, kolakenda (herbal porridge) <mark>Lunch (rice and curry)</mark>







Steyn et al (2013) 23 studies

contribution to individual intake

SEAR

No data on proportion of daily energy supplied by street food



Daily energy intake from street food

- Adults 13 % to 50 %
- Children 13 % to 40 %

Daily intake of protein

- 50 % of the recommended daily allowance (RDA)
- Iron, calcium, vitamin A

In SEAR: most studies report a high reliance on street foods

STUDY	NUTRIENTS
Charkravarty & Canet 1996	500g meal contains 1000kcal (20 – 30g protein, 12 – 15g fat , 174 - 183 g carbohydrate)
de Morais et al. 2018	Sodium: 500 - 2500 mg / serving Potassium: 35 -1646 mg / serving Na:K ratios 1.1 – 10.1
Gupta et al. 2016	Saturated fats - 25% to 69% of total fatty acids Trans fats - 0.1% to 30% of total fatty acids Mean fat content /100g serving: - 28.8 ± 17.8 g (villages), 29.6 ± 12.6 g (urban slum) Highest fat content/ 100 g: - snack mixture, 64.8 g (rural); kachodi, 46.6 g (urban)
Solanki 2011	Vended vs homemade: oil (15g vs 10g) spices (10g vs 3g)water (15g vs 7g) Pani puri: more oil (11g vs 6g) and tamarind pulp (10g vs 0g) Bhel: less Bengal gram (5g vs 10g) Pizza: more butter (8g vs 2g), oil (5g vs 2g) less cheese (5g vs 10g) Chinese rice: less food content, more water (47g vs 27g) Masala dosa: more water (35g vs 12g) less green gram (5g vs 15g)

Limited evidence....

Street foods are high in

- Saturated fat
- Trans-fat

Processing methods indicate the use of high fat, salt and sugar

- Deep frying
- Sweetening
- Salting methods

From the FEEDcities project, Central Asia, (Tajikistan, Kyrgyzstan),

- Very high sodium and inappropriate sodium to potassium ratio
- High in fat

Limited studies on micronutrients

Foods high in fat and carbs tend to be low in micronutrients

Challenges in addressing nutrient content

- Variation in recipes for the same product is a challenge
 - to labelling
- Poor preparation methods (deep-frying possibly with reuse of cooking oil) challenges improving nutrient content

Consumer and vendor awareness in creating healthy food environments

- Most studies: consumers consider taste, variety, convenience and cost
- Singapore: consumers were aware that street foods are high in fat and low in vegetables, but this did not appreciably influence buying
- Taste dominance more pronounced in lower income segments (Singapore. No documentation elsewhere).
- Vendors had poor knowledge of the nutritional aspects of the foods that were sold.
- Vendors were willing to use better oils if the taste and qualities could be maintained

Gaps in research

- "Prevalence" of street food consumption
- Individual diets and the contribution of street foods to total energy
- Macro and micronutrients
- Packaged foods and prepared foods separately
- Fresh fruit and vegetables minimally processed
- Linking food safety to nutrient density are nutrient dense minimally processed foods safe?
- Adulteration of prepared foods with addition of water or other cheap ingredients for cost reasons

Potential next steps...

Improve raw materials

- Link formal sector supply
- Informal sector supply
- Minimise waste

Promotion of better foods

and cooking methods

- Consumer awareness
- Vendor awareness

Address poverty-driven

nature of industry

- Incentives for better services?
- Subsidies/benefits?

Food safety & sustainability

- Sanitation & water, waste disposal, reuse, recycling
- Training in food handling

Street Food Management Model **Development in Thailand**

Food safety for Health promotion and tourist support



Chailert Kingkeawcharoenchai, Food Sanitation System Development Unit Bureau of Food and Water Sanitation, Department of Health, Ministry of Public Health, Thailand





Objectives

- To develop prototypes of street food management emphasizing sale & consumption of vegetables and fruits, and standard requirements
- To develop system & mechanism on street food management with cooperation of network partners
- To promote knowledge literacy of consumers for changing behavior of vegetables and fruits consumption
- To propose policy recommendation on development of street food management for the Public Health Ministry



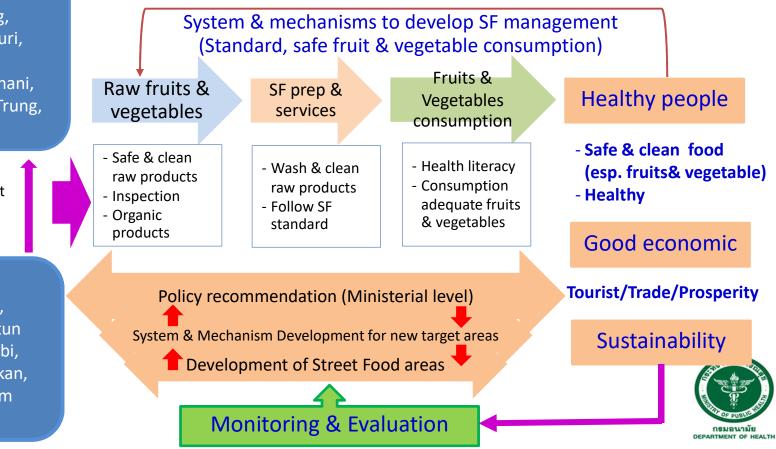
Conceptual Framework

Consumers' needs

12 previous provinces: ChiangMai, Lampang, Ayutthaya, Suphanburi, Chonburi, Burirum, Kalasin, Ubonrachathani, Suratthani, Phuket, Trung, Songkla

> Extend new target areas development by coaching from previous areas

12 new provinces: MaeHongSon, Phare, Chainat, Lopburi, Satun Prachuapkirikun, Krabi, Yasothon, Samutprakan, Khonkean, Chaiyapum Nakornpanum



Project Goals

Develop street food model management for health promotion

Promote sales & consumption of safe fruits & vegetables

Achieve street food standards requirement (health, economic, social and culture)

Goals

Develop system & mechanism to manage SF by local authority

Creating well-being for consumers and supporting Thai tourism.

DEPARTMENT OF HEALTH

Outcomes

- Local policy to promote safe street food for consumers' health & well-being
- Learning centers and services of safe street food
- Procedure to sustainably management of street food standard by network partners
- Knowledge on policy & measures to promote safe & adequate fruits & vegetables
- Reduction of risk of non communicable diseases and increase consumption of healthy food

5



DEPARTMENT OF HEALTH

Campaign, Study visit, Lesson learnt





















Clean Food Good Taste Project









Objectives:

- To reduce risk of water & food borne illness from foodservices
- To promote clean & hygienic food in foodservices for local and foreign tourists
- To promote food & environmental management of local government



Target group:

Restaurants and street foods around the country at tourist attractions:

- Airport
- National park, zoo, wildlife park
- Festival & special occasions
- Entertainment
- Petrol stations
- etc.



Strategies:



- 1. Formation of Multi-sectional party between government offices and private sector
- 2. Quality assurance for certified foodservices 'Clean Food Good Taste' sign
- 3. Sustainable management
- 4. Public relation



Responsible offices:



- Department of Health, Ministry of Public Health
- Ministry of Interior (local governments)
- The Tourism Authority of Thailand
- Other related government offices
- Private sectors

Target:



At least 80% of total number of foodservices (restaurants, street food) can meet the required standard of food sanitation (physical & biological)







Standard criteria for Clean Food Good Taste

Physical condition

- Food sanitation standard
 - (places, food, utensil, pest, person)

Bacteriological condition

 Test for contamination of coliform bacteria in food, utensil and cooks'hands (90% of the samples must be negative)





Food Sanitation Standard: Physical conditions





Monitoring & Evaluation System



- 1. Quantity
 - Report through supervision system of the Ministry of Public Health from local level to central administration viaE-Inspection

2. Quality

 Provincial Health Offices and local government carried out quality evaluation of the certified foodservices twice a year and report through E-Inspection

(30% of the CFGT certified food services around the country for quality control and evaluation.)



Monitoring & Evaluation System

- 3. Quality assurance by private sectors & consumers
 - Foodservices association incorporates with local government offices inspect their premises according to the CFGT standards
 - Consumer feed back to the officers when finding the sanitation problem in the foodservices



Coliform Test Kit (SI-2)





Sampling method





Food



Hand







Utensils

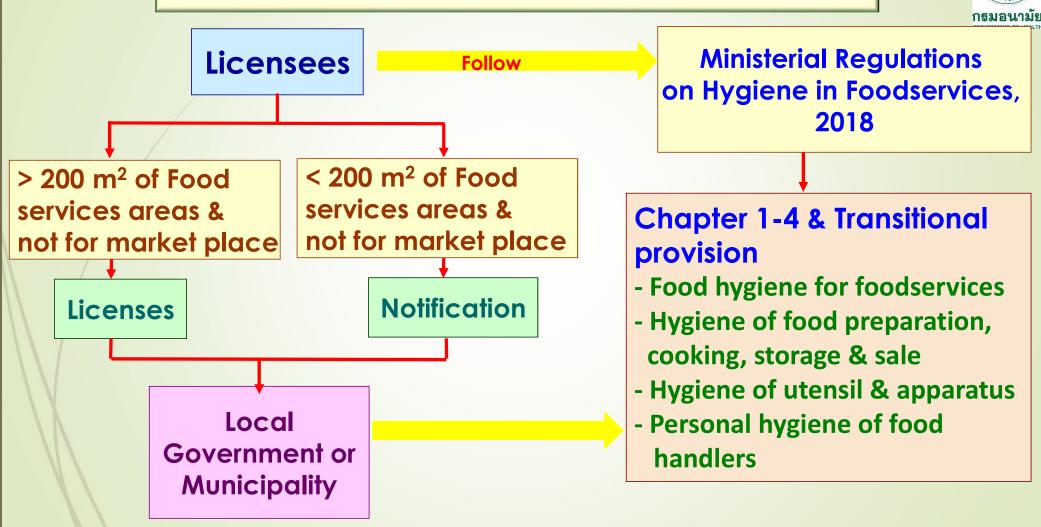
Results & Report





Licensing procedures for Foodservices



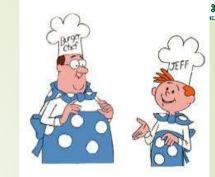




Chapter	No.	Details	
Introduction	1-2	Enforcement within 180 days & Definition	
Chapter 1	3-8	Food hygiene for foodservices	
Chapter 2	9 – 18	Hygiene of food preparation, cooking, storage & sale	
Chapter 3	19 – 20	Hygiene of utensil & apparatus	
Chapter 4	21	Personal hygiene of food handlers	
Transitional Provision	22	 Implementation within 180 days, except 1. No. 8 Fire Protection, corrected within 1 year 2. The owners & Food handlers passed Food sanitation course, corrected within 2 yaears 	



Affected people



"Foodservices' owner"

Person or corporation who obtained licenses or notification to establish foodservices. This includes the person assigned to supervise the operation of foodservices.

"Food handler"

Any person involved in the process of food preparation, cooking, distributing, and serving. This includes the person assigned for washing and storage equipment.



- Notification of the Ministry of Public Health B.E 2561 (2018) Prescribing light intensity in foodservices (16 January 2019)
- 2. Notification of the Ministry of Public Health B.E 2561 (2018) Specification and criteria for storage temperature of fresh food (16 January 2019)
 - Notification of the Ministry of Public Health B.E 2561 (2018) Code and training management for proprietors and food handlers (25 April 2019)

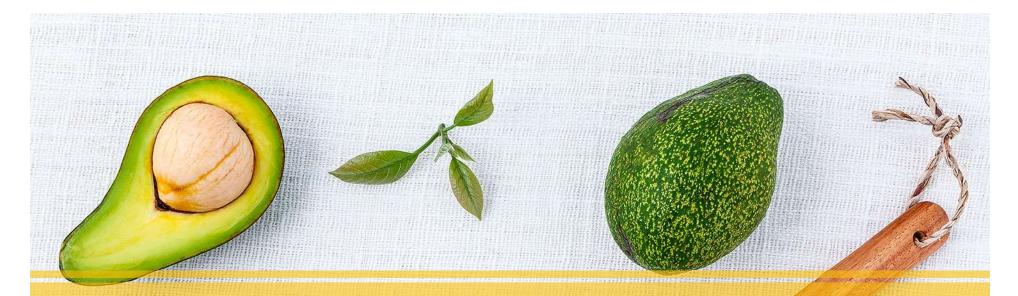


Chapter 4, No. 21 Personal hygiene for food handlers

Transitional provision: shall perform within 2 years after amendment of the Ministerial Regulation (16 Dec.2020)

Notification of the Ministry of Public Health B.E 2561 (2018) Code and Training Management for Proprietors and Food Handlers (25 April 2019)

Proprietors and food handlers in all foodservices shall pass the food sanitation training course

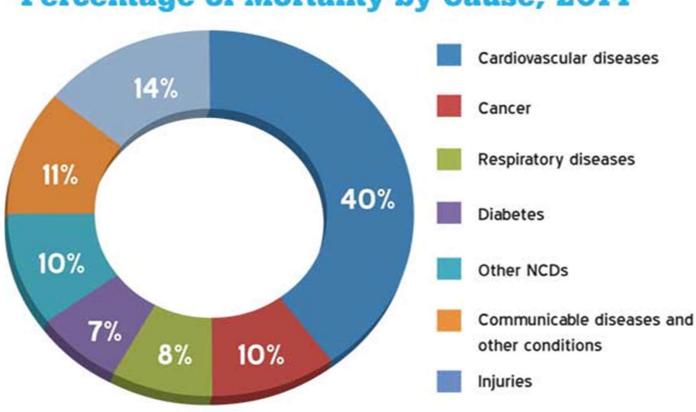


Promoting healthy food through informal food sector



Dr Ruwan Wijayamuni MD., MPH., MSc Comm Med Chief Medical Officer City of Colombo Public Health Department Colombo Municipal Council

Non communicable disease burden



Percentage of Mortality by Cause, 2014

Source: WHO (2014). "Non-Communicable Disease Country Profiles 2014" http://www.who.int/nmh/countries/en/(las access 9th March 2015)

Informal food sector in the City of Colombo

Food is regulated by the Food Act No. 26 of 1980 and the amended act of 1990

Municipal Councils Ordinance and the By Laws that are formulated under that Ordinance

Street Food is "Illegal"

The informal food sector in the city

- Approximately 500-600 street food vendors make up the major proportion of the informal food sector in Colombo City.
- Use food carts, temporary stalls, food vans,
- Three-wheeler or Tuk Tuk Mobile food vendors are selling mainly bakery products, and pastry
- Sellers of sliced fruits (pineapples, mangoes), fruit juices etc, fermented fruits (achcharu), Herbal porridge (kola kanda), tea, vadai, string hoppers, hoppers, etc.





Informal food sector in the Colombo City

- With the booming tourism sector during past decade informal food sector in the city have expanded remarkably.
- There are 880 eateries within Colombo city.
- Out of which 220 are unregistered.
- Mobile food vans are a growing trend in Colombo city.
- More than 500 street food vendors and 92 mobile food vans



Canteens: There are 182 government and school canteens.



Roadside Fruits stall









Approximately 300 home based informal food producers sell 375000 food parcels daily



Food riders connected through mobile apps e.g.- Uber eats).



GOT A BIKE?

Want to earn Rs.80,000 to Rs.100,000 per month?



PickMe.

Register now! Visit **309 High Level Road, Nugegoda.** Limited slots available, apply early! Call 0114 507 588

New initiatives taken by the Ministry of Health to promote Healthy Food

- Food Based Dietary Guidelines and
- National Food Policy being revised
- Under the Food Act the Regulation for Food Colour coding for Sugar, Salt, and Fat gazetted and has to be expanded to informal sector too
- Regulation for Food Premises Registration gazetted

Initiatives taken by the Public Health Department to promote safe and healthy food by the informal sector

- Implementation of food safety and hygiene regulations I to the informal food sector.
- Health education of food vendors regarding bad practices that can increase Non Communicable Diseases among consumers.
- Implementation of national policies and guidelines aimed at reducing NCDs.e.g.- implementation of Healthy Canteen Policy.
- Involvement of social media (facebook) in promoting healthy foods among General Public.
- Food handler training programs for street food vendors and home based food producers.

Preparing and implementing new guidelines for food delivery riders.



Implementation of food safety and hygiene regulations for the informal food sector.





food in unhygienic kitchens with minimum facilities and there can be contamination, Registering Vesak Dansals

was compulsory this time and action would be taken against individuals if PHIs conducted raids and find any food prenared and served unde

Health education of food vendors regarding bad practices that can increase Non Communicable Diseases among consumers.



Food handler training programs for street food vendors and home based food producers.









Food handler training programs for street food vendors and home based food producers.









Involvement of social media (facebook) in promoting healthy foods and food safety.



Posted by Gemunu Saliya Perera August 4 at 1:18 PM · 🕥

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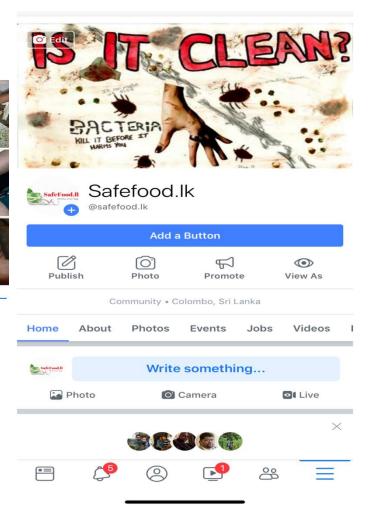
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Cold Food Storage

These storage guidelines for home-refrigerated foods will keep them from spoiling or becoming danger to eat. The guidelines for freezer storage are for quality only. Frozen foods remain safe indefinitely.

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Preparing and implementing new guidelines for food delivery riders.







CMC introduces guideline for mushrooming food deliverers

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The Colombo Municipal Council (CMC) has introduced a set of guidelines to be followed by all the food deliverers, who are on the rise in the city.

The officials of the Municipality's Health Department had drafted the guideline to food deliverers in line with the Food Act under the guidance of Mayor Rosy Senanayake and the instructions of Chief Medical Officer Dr Ruwan Wijayamuni.

The City Food Safety and Hygiene Promotion Unit, Dr Subash Mendis said there were several deliverers attached to various restaurants to deliver food in the past and the number has increased recently with the entry of Uber and PICKME Food deliverers.

Challenges and Issues

- Street food is Illegal but Do Exist
- Huge demand among consumers
- Need to promote On-Site Preparation of street food
- Very high turnover of food handlers involved in informal food sector.
- Seasonal variations in number of street vendors. Numbers very high during festive very seasons such as New year and Vesak festival.
- Consumers are very sensitive of the price of street food. Which in turn forces ven dors to prepare food items using substandard raw material and overuse oil for fr ying.
- **Grossly inadequate knowledge and training among food handlers** regarding food safety, hygiene procedures and healthy food.



New trend in emergence of home base<u>d</u> food industry who sell their

products using mobile apps and food delivery services (Uber Eats, Pick Me eats).

Thank you

Viet Nam's Experience in Ensuring Street Food Safety

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VIET NAM - MOH

Contents

- I. Street Food
 - Definition, Advantages and Food Safety Risks
- 2. Street Food Management
 - Legal documents and state authorities
- 3. Shared Responsibility
 - Roles of Government
 - Collaboration with private sector, development partners and consumers
 - Difficulties in street food management



I. Street Food

• Definition:

Street food means the food processed for instant consumption which is displayed and sold in the street, at public places or similar places.

(Food Safety Law, 2010)



I. Street Food

- Advantages:
 - Low price
 - Easy to approach
 - Diverse types of food
 - Create jobs

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I. Street Food

• Food Safety Risks:

- Hard on traceability
 - Lack of document records
 - Mobility of stalls...
- Poor processing conditions
- Health conditions
- Lack of safe water, storage facilities (chilling)
- Sewage and garbage treatment



2. Street Food Management

• Legal documents:

Food Safety Law (2010):

- Conditions for ensuring food safety in respect to places where street food is displayed for sale:
 - It must be separate from toxic and contaminant sources.
 - Food must be displayed for sale on tables, shelves or means, ensuring food safety and hygiene and goodlooking street.
 - Sellers must wear clean and neat clothes and use one time gloves when directly contact with food and drink.

Regulations for street food saleman

- Have a certificate of training on food safety.
- Have a certificate of eligibility for health.
- Persons suffered from diseases on the list of contagious diseases as prescribed by the Ministry of Health not allowed to sell street food.

On October 2018, Government was dated Decree 115/2018/ND-CP on penalties for administrative violations against regulations on food safety. This decree regulates a higher level of penalties than previously regulations for street food business:

- A new point of the Decree 115 is the elimination of warning sanction and only maintain money sanctions.

- The penalty level is also much higher than before: from 500,000 VND to 1,000,000 VND (≈ 1.000 Baht) for street food business establishments against one of the following acts:

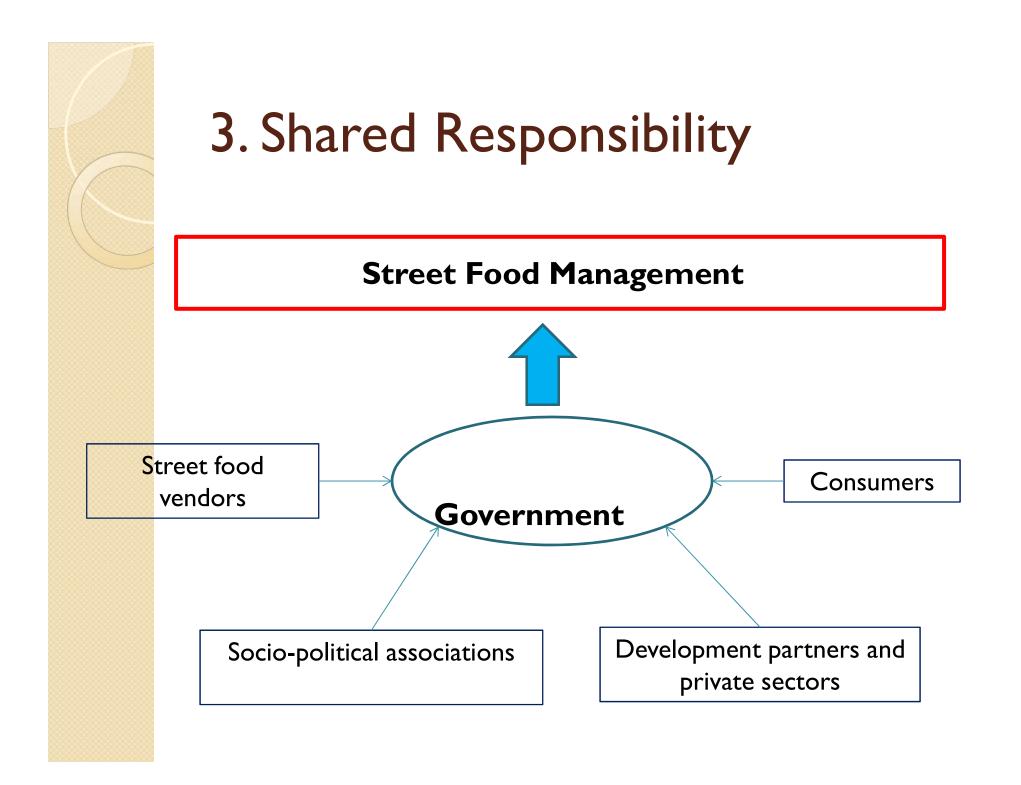
+ without tables, cabinets, shelves and equipments as regulations for selling food;

+ food are not be covered to prevent dirt, insects..;

+ do not use gloves during direct contact with cooked food, instand food ...

2. Street Food Management

- State authorities:
 - The Minister of Health specifically stipulates the conditions for ensuring food safety in trading street food.
 - People's committees of all levels are responsible for management of street food trading in the locality.



- Roles of Government:
 - Develop the regulation on conditions for ensuring food safety in trading street food
 - Inspect periodically (2, 3 or 4 times per years)
 - Inspect unexpectedly while food safety incidents occur
 - Enhance the knowledge on food safety for consumers and people taking part in food processing

- Sub-VFAs at some provinces have established "Model of Safe Street Food Stalls".
- In Ho Chi Minh city, local authorities are developing models for control food safety conditions of street food:
 - Food Streets;
 - Streets with no food stalls
 - Logos for "Safe Street Food"

Chến TRUC PHụ lục: Tiêu chí đánh giá cơ sở kinh doanh TĂĐP và chỉ tiêu xây dựng phường điểm kiểm soát điều kiện ATTP trong kinh doanh TĂĐP BAN QUÂN LÝ TRUẢN THỰC PHÁT Hàn Kế hoạch số 363/KH-BQLATTP ngày 24tháng 3 năm 2018 của Ban Quản lý TRUẢN THỰC PHÁT Hàn thực phẩm Cải thiện điều kiện đảm bảo an toàn thực phẩm thức ăn đường phố năm 2018 đến năm 2019 trên địa bàn Thành phố Hồ Chí Minh)

Stt	TIÊU CHÍ	Chỉ tiêu/tổng số cơ sở		
1	Nơi kinh doanh phải sạch, cách biệt nguồn ô nhiễm (cống rãnh, rác thải, công trình vệ sinh, nơi bày bán gia súc, gia cầm).	> 85%		
2	Bày bán thức ăn trên bàn/giá cao cách mặt đất ít nhất 60 cm.	> 85%		
3	Thức ăn được che đậy, bảo quản hợp vệ sinh, chống được ruồi, bụi bẩn, mưa, nắng và các loài côn trùng, động vật khác.	> 85%		
4	Không để lẫn giữa thực phẩm sống và thức ăn chín.	> 85%		
5	Có dụng cụ xúc, gắp thực phẩm sạch sẽ/găng tay sử dụng 1 lần khi tiếp xúc trực tiếp với thức ăn chín.	> 85%		
6	Bảo đảm có đủ nước và nước đá sạch phù hợp với quy định.	> 85%		
7	Người kinh doanh thức ăn đường phố phải được khám sức khoẻ.	> 85%		
8	Người kinh doanh thức ăn đường phố phải được tập huấn kiến thức về an toàn thực phẩm.	> 85%		
9	Có sổ sách ghi chép nguồn gốc thực phẩm.	> 85%		
10	Có đủ dụng cụ, túi đựng chất thải, rác thải kín và hợp vệ sinh.	> 85%		

- Collaboration with socio-political associations:
 - Government and Vietnamese Fatherland Front signed a document for the collaboration program on promoting and monitoring food safety activities in the period of 2016-2020

- Development partners and private sectors:
 - Provide technical supports
 - Provide tools: gloves, aprons, hats, masks...
 - Improve the awareness on food safety for consumers and people taking part in food processing



• Consumers:

- Viet Nam Food Safety Month in 2014 (15 Apr to 15 May) "Action for Street Food Safety" enhanced the responsibilities of consumers on ensuring the safe of street food:
 - Choose the safe food: cooked thoroughly, safe storage...
 - Choose the clean stalls
 - Choose healthy handlers

Difficulties in street food management

- The inspector force is not enough
- Awareness of business people is still low, some people do not know the sanctioning decree

Solutions

- Strengthening communication, education and raising awareness for people.
- Remindering for the first time violation and higher penalties for next time violation.



THANK YOU!



INFORMAL FOOD SECTOR FOOD SAFTEY IN THE PHILIPPINES

JOSEFINA H. SERNEO, RND, MSc. Nutritionist Dietitian IV DOH-MMCHD PHILIPPINES

Republic Act No. 10611: Strengthening the Food Safety Regulatory System

- In August 23, 2013 President Benigno Aquino S. Aquino III signed into law Republic Act No. 10611: otherwise known as the "FOOD SAFETY ACT of 2013"
- The law primarily adheres to the Philippine Constitution's declaration to protect and promote the right of the people and keep its populace from the threat of trade malpractices and substandard and hazardous products





Karinderia para sa Kalusugan ni Chikiting at Buntis

INNOVATED 120-DAYS DIETARY SUPPLEMENTATION FEEDING OF MALABON CITY





Karinderia para sa Kalusugan ni Chikiting at Buntis (Carinderia for the Health of Children and Pregnant)

- Feeding program of Malabon City were innovated and improved its strategies in operating the program.
- **Before**, caregivers of feeding beneficiaries and Barangay Nutrition Scholars (BNSs) are responsible in preparing nutritious hot meals, washing of soiled dishes and cleaning the venue after feeding session
- With this, it affects the time of BNSs in preparing quality report (they are tired already after feeding session) and caregivers spend lots of their time helping settling the venue of feeding session





Karinderia para sa Kalusugan ni Chikiting at Buntis (Carinderia for the Health of Children and Pregnant)

- Now, Karinderia owners are responsible in preparing the nutritious food for under 5 years old children for 120-days
- Foods are more palatable and appetizing. With this, there is a good result or accomplishment because children are more excited to visit the feeding venue due to food is more delicious (karinderia cook are well-equipped in cooking)
- BNSs can create their quality report on time and Caregivers can spend much more of their time for their family.
- The City can provide livelihood programs for the small carinderia business in the community





Good Practices

➤The City are consistently supported by private sectors, business establishments, Non-Government organizations and private individuals through sponsoring and donating goods (rice, eating utensils and etc) for the feeding program. Gifts and other incentives were also donated every graduation for the feeding beneficiaries.

Karinderia owners are taking their responsibilities more than our agreement. They are doing house to house visit when children are not around during feeding session





Good Practices

➢ The program is hitting two birds in one stone (nutritional status of children were improved while Carinderia owners is receiving livelihood program from the City Government

➢Karinderia owners were also responsible in providing food during emergencies (fire, flooding and etc)







Children and Nutritionally at risk pregnant are not able to attend the feeding session due to heavy rain and flooding

Karinderia owners are doing house to house visit to provide hot meals for their feeding beneficiaries.

➢When children and Nutritionally at risk pregnant are not feeling well and was not able to attend feeding session

➢ Karinderia owners will look for medical prescription or any proof of medication and they will send food for the beneficiaries.





Sample Cycle Menu

WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
1	Sayote with Giniling Boiled Rice Fruit in Season	Chicken Potchero Boiled Rice Fruit in Season	Fish (Fillet) Sarciado Boiled Rice Fruit in Season	Pork Langka Sinigang Boiled Rice Fruit in Season	Ginataang Sitaw Kalabasa Boiled Rice Fruit in Season	Pork-Tokwa Menudo Boiled Rice Fruit in Season	Chicken Adobo with Patatas & Saba Boiled Rice Fruit in Season
2	Vege- Tofu Guisado Boiled Rice Fruit in Season	Pork Giniling with Quail Eggs Boiled Rice Fruit in Season	Guinisang Monggo with cassava at talbos ng kamote Boiled Rice Fruit in Season	Chicken Tinola with Sayote Boiled Rice Fruit in Season	Batchoy with Malunggay Leaves Boiled Rice Fruit in Season	Fish Shanghai Boiled Rice Fruit in Season	Fried Fish (Fillet) Pinakbet Boiled Rice Fruit in Season
3	Vegetable Omelet Boiled Rice Fruit in Season	Chicken Afritada Boiled Rice Fruit in Season	Ginulayang Isda (Fillet) Boiled Rice Fruit in Season	Pork Nilaga Boiled Rice Fruit in Season	Pinakbet with Dried Dilis Boiled Rice Fruit in Season	Chicken with Liver Adobo Boiled Rice Fruit in Season	Tuna-Sayote-Carrot Guisado Boiled Rice Fruit in Season
4	Pork-Veggie Express Boiled Rice Fruit in Season	Veggie-Sardines with Miswa Boiled Rice Fruit in Season	Pork-Tokwa Apritada Boiled Rice Fruit in Season	Chicken Simanpalukan Boiled Rice Fruit in Season	Almondigas with Patola and malunggay Boiled Rice Fruit in Season	Pesang Tilapia (Fillet) Boiled Rice Fruit in Season	Pork-Veggie Burger Boiled Rice Fruit in Season



Thank You!

Expanding Food Control System to Promote Healthy Diets

Citra Prasetyawati

Presented in:

FAO/WHO Inter Regional Meeting to Promote Healthy Diets through the Informal Food Sector

20-23 August 2019



Agenda

Food Safety System : Scope and Objective

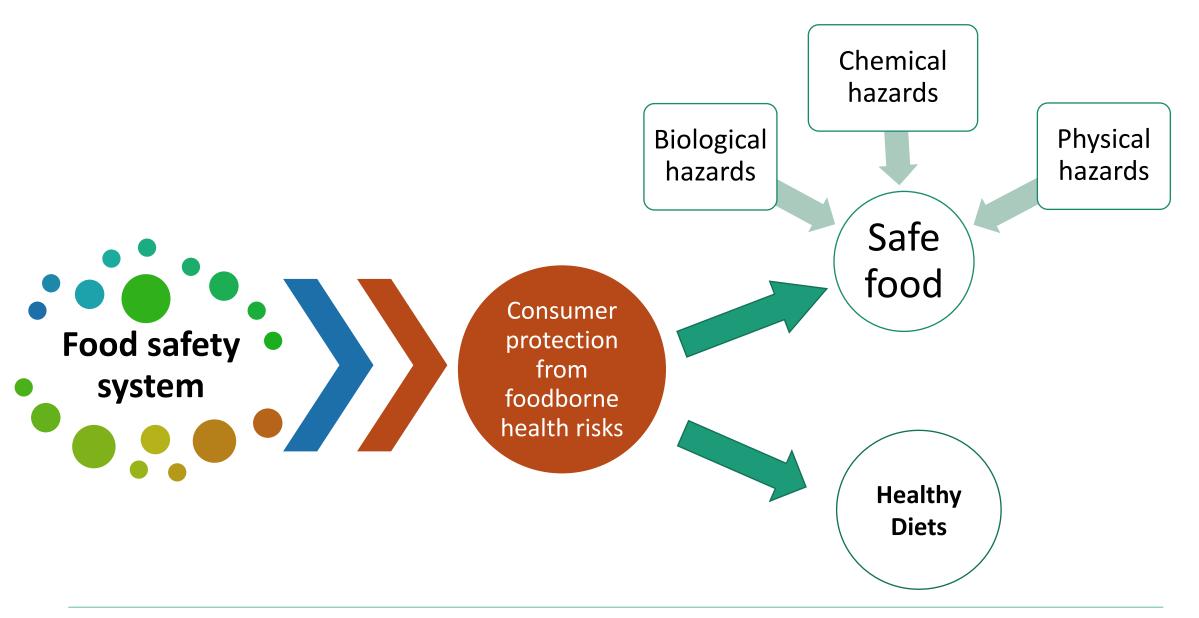
Current Challenges on Food Safety

Food Safety and Nutrition

Official Food Control system

Nutrition Program and Official Food Control- A collaboration

Practical Examples



A broader scope of food safety

Current Challenges on Food Safety

	• 2 nd highest globally; 150 million illnesses, 175 000 deaths
SEARO	• Top 4 to cause death: <i>Salmonella typhi</i> , norovirus, hepatitis A virus, Salmonella enteritidis
	• Top 4 to cause diseases: <i>Campylobacter</i> species, <i>Shigella</i> species, enterotoxigenic <i>E</i> coli, and non-typhoidal <i>Salmonella</i>

 • 125 million illnesses, 50 000 deaths • Top 4 to cause death: aflatoxin, Salmonella typhi, par Echinococcus multilocularis, Clonorchis sinensis (Chi Top 4 to cause diseases: Shigella species, norovirus, n Salmonella and Campylobacter species

WHO Global Estimation on foodborne diseases burden *) (2010)*) based on available publications

Foodborne Events of International Concern (INFOSAN, January– March 2019)

29 food safety incidents involving 66 countries globally

Hazard

- Microbiology : (Salmonella (7), Listeria monocytogenes (4), E. coli (2), Bacillus cereus (1), Hepatitis A virus (1), Norovirus (1), Vibrio parahaemolyticus (1), and Vibrio vulnificus (1))
- Physical: metal fragment (2), plastic (2) dan glass (1)),
- Allergen: almond (1), eggs and milk(1), gluten (1), pistachio (1)),
- Hazardous chemical Poor hygiene practices

Contaminated food

Milk and milk products(5), spices(4), meat and meat product(4), snacks, desserts(4), fish and seafood (3), fruit and fruit products(3), product for special nutrition purpose(2), cereals and cereal based product(1), composit food(1), nuts and vegetable oil (1), and vegetables (1).





Key Food Safety Challenges in Informal Sector

Low investment on food safety

- Unsafe raw material including water source
- Lack/absence of cold chain facilities (i.e. electricity, cold chain appliances)
- Lack of hygiene facilities (i.e. running water, trash bin, food safety equipment for handlers)

Lack of food safety awareness

- Poor hygiene and sanitation practices
- Low awareness on labelling information

Food Safety and Nutrition within A Cycle (FAO-The Future of Food Safety, 2019)

Food safety is the base of healthy diets and lives

Unsafe food prevent suitable intake of nutrient and affect the long term development delays in children (aflatoxin & stunting)

People with malnutrition are more susceptible to diseases, including those are foodborne

Commitment on Expanding Food Safety Norms for Nutrition

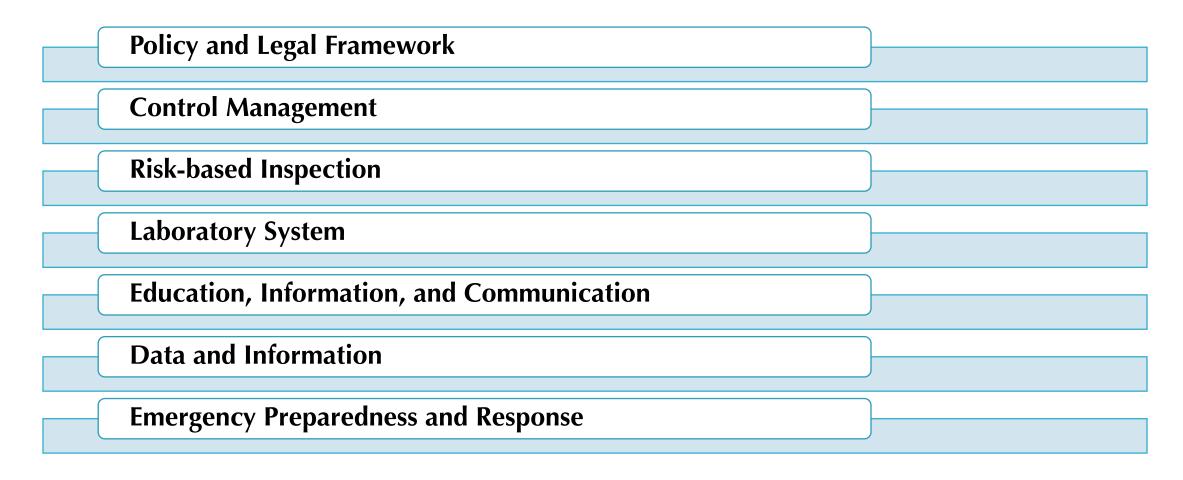
Food safety cannot be only about preventing people from getting food poisoning or falling sick due to food-borne illnesses, but must tackle the full spectrum of diet-related health risks

(Jose Graziano da Silva, FAO DG, on International Food Safety Conference 2019)

Broaden food safety framework for action to promote healthy diet (WHO SEARO, 2019)

The importance of food safety in achieving better human nutrition through healthy diets (International Conference on Nutrition 2, Rome, 2014)

Food Control System – The Fundamental Elements



FAO/WHO Guidelines for Strengthening National Food Control System

Policy and Legal Framework

• Develop coordinated policy to include regulation for healthy diets as a part of control system

• Some practical examples:

► Regulation on Food fortification

Labelling requirement to include nutrition information

► Policy on Salt and Sugar reduction

► Restriction of hydrogenated fat (Trans fatty acid)

Risk-based Inspection

- Official inspection is conducted to enforce the implementation of policy and regulation
- Modern risk-based food inspection assesses the effectiveness of any measures taken to prevent foodborne diseases and facilitates improvement of measures to manage foodborne risks
- Some practical examples:
 - ✓ Hazard specific control programmes such as to monitor aflatoxin which is associated with stunting
 - ✓ Encourage investment on cold chain to facilitate supply and storage of fresh and perishable foods
 - ✓ Facilitate investment on hygiene facilities and potable water
 - ✓ Certification/ licensing/recognition of food facilities based on current level of hygiene and nutrition i.e. food star award system

Education, Information, and Communication

- Consumers play significant role in initiating behavioral changes within their communities, both for food safety and nutrition programmes
- Sufficient information and communication strategy should be made available for consumers education on healthy diets
- Practical examples:
 - ✓ Information for consumers to promote healthy diets such as to put calorie of food on menu, to add nutrition information in food label
 - ✓ Food safety campaign to include promotion on healthy diets (i.e. 3 five keys)
 - ✓ Consumer education to promote healthy diets i.e. salt and sugar reduction
 - ✓ Training for food handlers on two inter-related topic: food safety and healthy diets

Food Safety Campaignintegrated with nutrition and healthy lifestyle

The Five Keys to Safer Food has been used since 2001 as basis of education programmes by public and private sector for training of food handlers (street food vendors, household, school children)

The Five Keys to Safer Food has been translated into more than 50 languages all over the world

The Three fives was introduced at WHO health promotion campaign in Beijing Olympic in 2008

- Five Keys to Safer Food
- Five keys to a healthy diet
- Five Keys to Appropriate Physical Activities

safer food, healthier nutrition and regular physical activity, you can improve your health throughout your life. These choices are particularly important because they are about personal decisions that only you can make.

Increasing your knowledge about the Five key behaviors related to each of the areas above can help you make better choices. These key behaviors are important for your health no matter how old you are or where you live in the world. Look better, feel better, reduce your visits to the doctor, maintain normal blood sugar and blood pressure, keep a healthy weight – these are just a few of the benefits of adopting the key behaviors described in this brochure.

As the teams display the highest levels of fitness and health, the 2010 FIFA World Cup provides a unique opportunity to share these messages. This brochure has been prepared by the South African Department of Health in collaboration with the Regional Office for Africa, World Health Organization. It is part of an overall strategy to enhance public awareness

about the contribution of food and physical activity to healthy lifestyles.





Healthy choices, healthy life...

> More information is available at: www.who.int/foodsafety/consumer/en



The 3 Fives

Five keys to safer food,

Five keys to a healthy diet,

Five keys to appropriate physical activity.





Challenges on Expanding **Food Control System for** Nutrition in Informal **Sector**

- Cross-sectoral coordination based on country institutional and specific situation, i.e.:
 - \checkmark establish coordinated policy
 - ✓ develop joint programmes for food safety and nutrition
- Involvement of food business operators and their association
- Initiating behavioural changes of food handlers and consumers on some long rooted habits

Thank you!



Addressing data gaps in informal food sector; learnings from the FeedCities project and beyond

Dr Angela de Silva

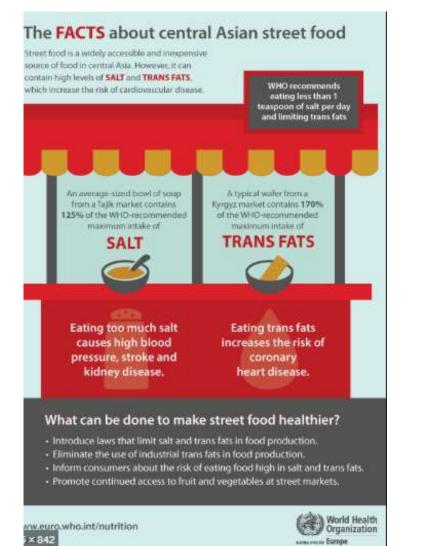
Regional Adviser Nutrition and Health for Development WHO Regional Office for South-East Asia





Data gaps hinder actions on promoting healthier diets

- Country policies and laws, local government regulations
- Vendors and consumers information: demographics, SES, perceptions, priorities
- Foods: what type, nutrients
- Supply chains for raw materials
- Vendor associations



FeedCities Project

- Ongoing multicountry study, which describes the urban food environments of cities in central Asia and South-eastern Europe.
- Focus on street markets and vending sites (including food markets, kiosks and street vendors) selling ready-toeat food in urban areas and document the types of food most commonly sold.
- Characterizes vending sites and assesses the trans-fatty acids, sodium and potassium content of foods based on laboratory analyses.
- WHO will work with countries to interpret the findings and develop appropriate responses.

Useful information

Homemade	In	Industrial		
В	E F	G		
D	н	- 1		
A		F		
C	G	н		
E	. 1	. i		
В	E F	G		
D	н	1		

- Low cost tie up with academia
- Small scale assessment, but adequate information to extrapolate to other cities in the relevant country
- Some common issues identified across countries salt, TFA, high sale of beverages; solutions could be multi country
- Compensates somewhat to the lack of data on dietary habits and food composition at a larger scale
- Examination of data from this study with data from other smaller studies to verify and validate inferences.
- As in other street food environments, although traditional foods were widely available, new ingredients and foods processed by large-scale food manufacturers are becoming more prevalent.
- Traditional homemade foods, can also be unhealthy

	Total (%)			
Food offered	Mobile (n = 164)	Stationary (n = 436)		
Fruit	2.4	5.1		
Food other than fruit	90.2	83.7		
Industrial	13.1	23.1		
Homemade	64.1	53.8		
Homemade and industrial	22.8	23.1		
Beverages	59.8	62.3		

Table 6. Food offered at 600 street vending sites by type of ven

- Nutrient data: of specific nutrients of concern: TFA and sodium
- Characterization of vendors and sites
 - Stationary and mobile street food vending sites.

- Vendors were mainly women and owned their business

- Generally, food was sold everyday across the yearnot seasonal.

- Characterization of foods:
 - what kind of foods were available
 - were they solids or beverages
 - prevalence of sales of fruit and vegetables
- home made or industrial products (many sites had a mix of foods)

Information



- Mapping of informal food sector pathways- for specific diets or focus areas
- Identifying governance structures, policies, pathways and actors to

plan an implement an enabling environment

 Vendor and consumer informationknowledge, attitudes, behaviours......

Going beyond foods and nutritional information



Regional Office for South-East Asia

Thank you





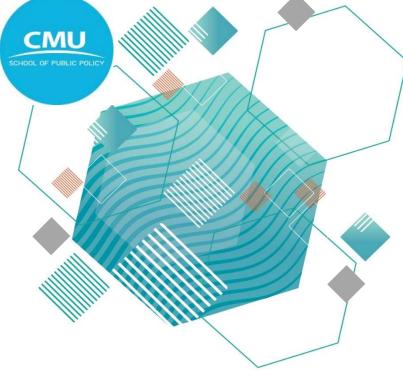
An urban food systems approach for promoting healthy diets:

urban policies, built environment and practices

Asst. Prof. Piyapong Boossabong, PhD

School of Public Policy

Chiang Mai University

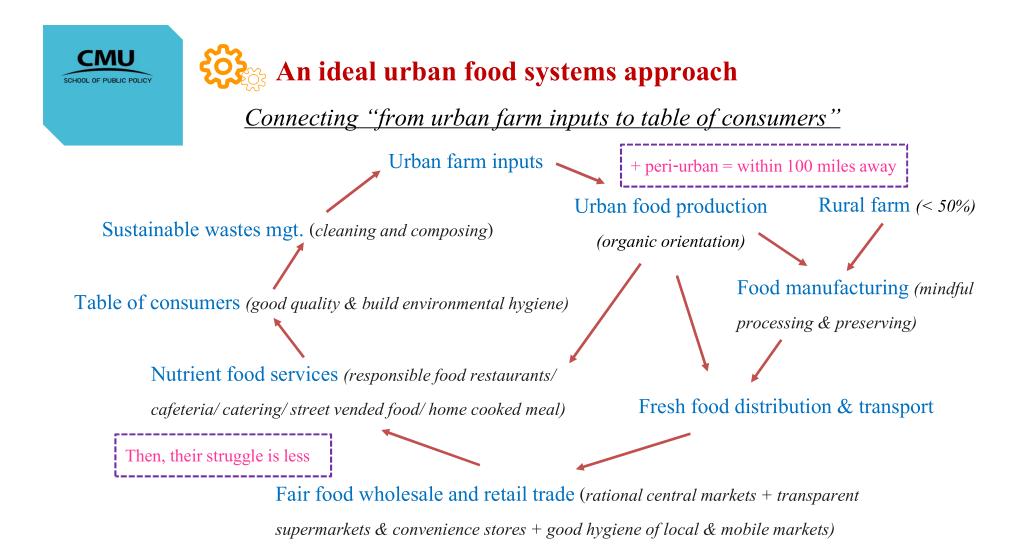


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An entry point:

"Unhealthy diets start from poor food systems"

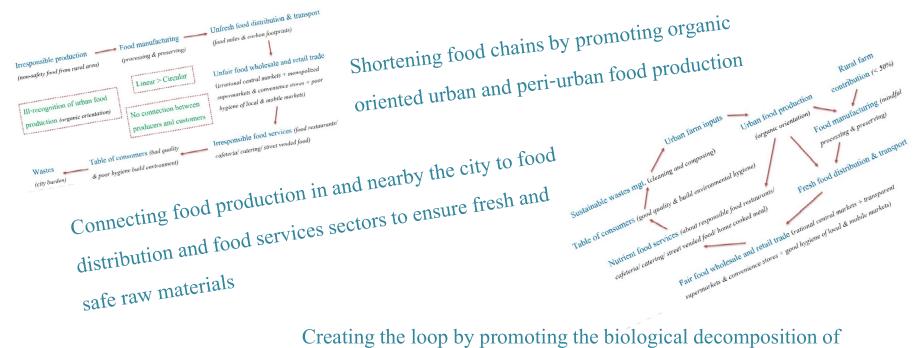
Irresponsible pr (non-safety food fr		Food manufacturing (processing & preserving)	→ Unfresh food of (food miles & car	distribution & transport <i>rbon footprints</i>)		
Ill-recognition of urban food production (organic orientation)		Linear > Circular	Unfair food wholesale and retail trade			
		No connection between demand-side and supply-side	supermarkets & convenience stores			
Understand the whol	e chain, then we s		Because of the structural barriers above			
Wastes (city burden)		na build anvironment)	i rresponsible food services (food restaurants/ afeteria/ catering/ street vended food)			





Urban policies toward healthier diets

Transforming the linear food systems to be more circular



organic waste and turning to the urban food production sector



Urban policies, in particular to street vended food

-Incentivizing such food service to use fresh and safe raw materials from trustable urban and peri-urban farmers by proposing the lower price than the market price

- Paying the difference between the market price of those organic products and the proposed

lower price

OR

The example of going beyond only putting a pressure on them (understanding their structural barriers)

- Building the direct link between them to reduce the transaction cost

-Standardizing the street vended food by labelling the quality of food services based on the

degree of healthy diets

Re-imagine

-Promoting healthy diets as a new culture, identity, and image of street food in the 21st century

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Built environment toward healthier diets



- Regulating the nutritional quality of food and hygiene of the cites with the strict sanction
 - Zoning the dense area of street vendors

-Providing safe, piped drinking water, sanitary facilities & basic waste disposal

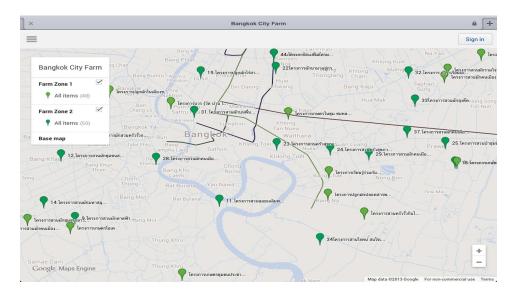
- Promoting waste mgt. innovation
- Providing the street vendors the trash can that could turn food waste into garden treasure

- Building a waste hub of each zone



SCHOOL OF PUBLIC POLICY

Examples of the practices toward healthier diets Promoting organic oriented urban food production and connecting to the street vended food sector



- Protecting urban and peri-urban farming areas
- Reforming the agricultural extension tasks to
 include the city scale = Governance mechanism
 Stimulating organic food production within and
 nearby the city, including in schools, hospitals and
 governmental offices
- Supporting smallholder and part-time farmers in accessing to land and starting their food production
- Transferring knowledge and innovation to the target groups in the city
- Increasing its contribution (> 50%), in particular to the street food sector

Cope with structural barriers – not only access to micro-credit CMU SCHOOL OF PUBLIC POLICY

Examples of the practices toward healthier diets



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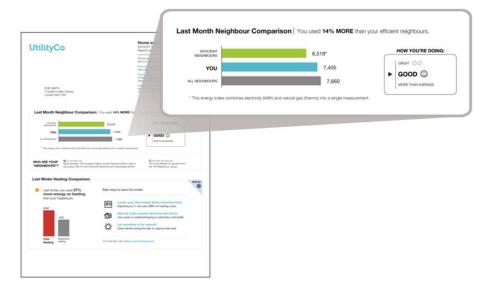
Nudging the

supply-side

Examples of the practices toward healthier diets

Stimulating behavioral changes ("nudging") of street food vendors

by sending monthly letter to their home providing the information about "customers health surveys" and their "rank" in term of nutritional quality and good hygiene in comparison to others in the same area Move to "how" =



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				Total Amoun	t Payable: \$21.	87
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Water Services by Public Utilities Board Usage: 1.9 Cu M				1 _		\$9.04
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psychological activation



Examples of the practices toward healthier diets

]	Transfor	rming he	ealthy d	liets int	o the au	thentic fa	ivor
Nudging t		of regula	ar street	food cu	istomer	`S		
demand-s	ide	Expecte	d reduction	n in daily	calorie in	*	Me -	
One sugar cube = 10 kcal	5	Cognitive nudges	7 carigata caracterization	Affect nudg		20		
	Descriptive labeling	Evaluative labeling	Visibility enhancements	1	Pleasure appeals OYNAMITE BEETS	Convenience enhancement	Size	

Definition: Labels in supermarkets, cafeterias, Descriptive Nutritional and chain restaurants with calorie and nutrition facts. Labelling Example: The shelf label or the menu board Nutrition Facts provides information about calorie, fat, sugar States - States and salt content. Definition: Labels in supermarkets, cafeterias. Evaluative and chain restaurants providing colour-coded Nutritional nutrition information that easily identifies Labelling healthier foods. 0 Example: The shelf label or the menu board provides information about calorie and fat ٢ content and shows a green sticker if the food is healthy or a red sticker if the food is unhealthy. Definition: Supermarkets, cafeterias, and chain Visibility restaurants making healthy food more visible Enhancement than unhealthy food. Example: Supermarkets place healthy food rather than unhealthy food near cash registers while cafeterias and restaurants make healthy food more visible and easier to find on their menu than unhealthy food. Definition: Staff in supermarkets, cafeterias, Healthy and chain restaurants prodding consumers to Eating Calls eat more healthily. Example: Supermarket or cafeteria cashiers or ... restaurant waiters ask customers if they would like to have fruits or vegetables. Definition: Supermarkets, cafeterias, and chain Pleasure restaurants making healthy food more Appeals appealing than unhealthy food. Example: Healthy foods are displayed more attractively in cafeteria counters or are O'NAMITE BEETS described in a more appealing and appetising way on menus.

Nudge Types

CMU SCHOOL OF PUBLIC POLICY

Examples of the practices toward healthier diets

Move from "stick" to "carrot" - hard to soft

- Awarding annually the best street vendor of the zone who helps creating the healthy environment
- Initiating the mutual monitoring system (monitor by other anonymous street venders in the same area) that can give a friendly feedback direct to each street vendor

Move from "surveillance" to "critical friends"

Enhancing relations and mutual responsibilities between street food vendors and consumers by creating platforms to communicate, reflect and send any requests in relation to the nutritional quality of food and hygiene of

the cites

Move from "inspection" to "mutual understanding"

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Examples of the practices toward healthier diets

Facilitating the formation of an inclusive association of street food consumers to push forward more healthy diets of street food (e.g. pushing Good Agricultural Practices (GAP), Community Supported Agriculture (CSA) and Participatory Guarantee System (PGS) to ensure fresh and safe row materials)





🔗 Examples of the practices toward healthier diets

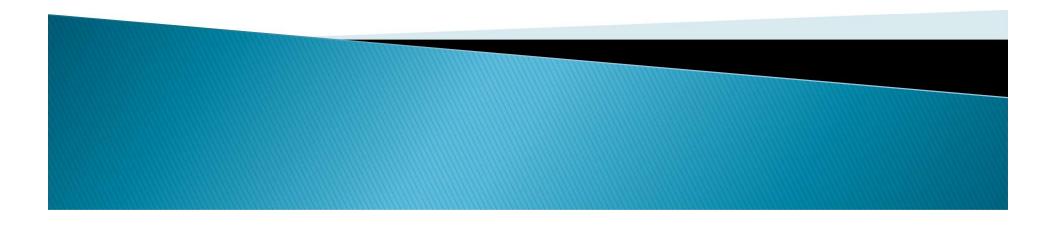
Rebranding street food vendors from "street cook" to "chef" *(inspired by Netflix)* to stimulate nutritional quality enhancement and good hygiene development of the cites



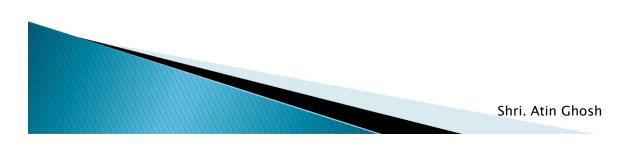
Plus - articulating all these
to climate change/ crisis
adaptation plan (as
informal sector is the most
resilient part?), city
foresight (re-positioning
for the future) & behavioral
policy sandbox/ policy lab

Leadership of Mayors and Local Government - Remarks

Shri. Atin Ghosh, Deputy Mayor, Kolkata Municipal Corporation (KMC), Govt. of West Bengal



It gives me immense pleasure to be a part of this extremely important Inter-Regional meeting being jointly organized by the WHO and FAO to promote Healthy diet through the informal food sector in this beautiful city of Bangkok.



I bring my best wishes from my city Kolkata, India.



I would specially like to thank Dr. Padmini Angela De Silva for her effort to invite me for this consultation.

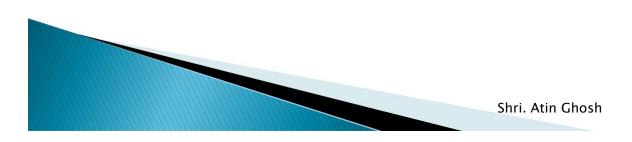


Kolkata and Bangkok, as far as they may geographically be from each other, the vibrant cities have one thing in common. Love for street food is sewn into the fabric of the rich culture and heritage of both these cities. Varied tastes, palatable items and colorful presentation.. Street food easily brings delight to travelers and natives alike.

'Street Food of Kolkata', as it is of Bangkok, is famous all over the world.



I understand the Hon'ble Mayor of Bangkok was here also yesterday and I am sure he also spoke about the excellent street food selection that Bangkok has to offer.



As both these cities have a remarkable connect, boasting of its rich street food culture, it is not only a responsibility of city corporations, it is obligatory that substantial hygiene control and strict law be implemented in this sphere.



Kolkata is a city that boasts of one of the largest numbers and variety of Street Food vendors, not only in the country but in the world.



The variety ranges from traditional food of our beautiful state Bengal as well as other states in the country along with cosmopolitan multi cuisine food. Actually, we have more than 200 varieties of Street Foods. So if you are looking for cheaper versions of dishes that are served in high-end restaurants, you are sure to find them on the streets!

What makes Kolkata street food attractive is the low price point at which it is available, making it the cheapest in the country, it is also easily available in nearly all public areas and roadsides.



We have approximately 16 thousand street food vendors in the city, some of whom are ambulatory and some have fixed kiosks.



The Kolkata Municipal Corporation (KMC), the erstwhile Calcutta Municipal Corporation (CMC) was the first city to initiate studies on street foods for better management and hygiene regulation.



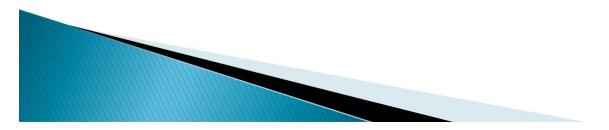
The first study that CMC did was with Dr. Indira Chakravarty in 1992 – 1995 (Dr. Chakravarty is here with us today); with Chief Secretary of the state chairing the Steering Committee. This endeavor was supported by FAO of the United Nations and it received the highest award – the 'Eduardo Sauma Award' from FAO of the United Nations for developing the 'Calcutta Model' based on this study in, 1995.



- This study for the first time highlighted that safety of street food can only be ensured if all stake holders such as the Municipality, Police, Customers, vendors etc. work together for the multiple factors that have an impact on it.
- Hence, my predecessor Mr. Subrata
 Mukherjee was invited by FAO to Chair the 'Feeding Asian Cities' Summit in 2000.



Subsequently, several other studies were conducted, supported by WHO and also by Govt. of West Bengal as well as Govt. of India, to take this process forward.



Now, personally, As a true Kolkatan, I have huge affinity towards our Street food. As a stakeholder as well as head of civic body, it is my duty to ensure that this rich heritage of our city is not marred with unhygienic, unscrupulous practices. It may not be a oneman-job, but I try my best to crack the whip wherever I possibly can.

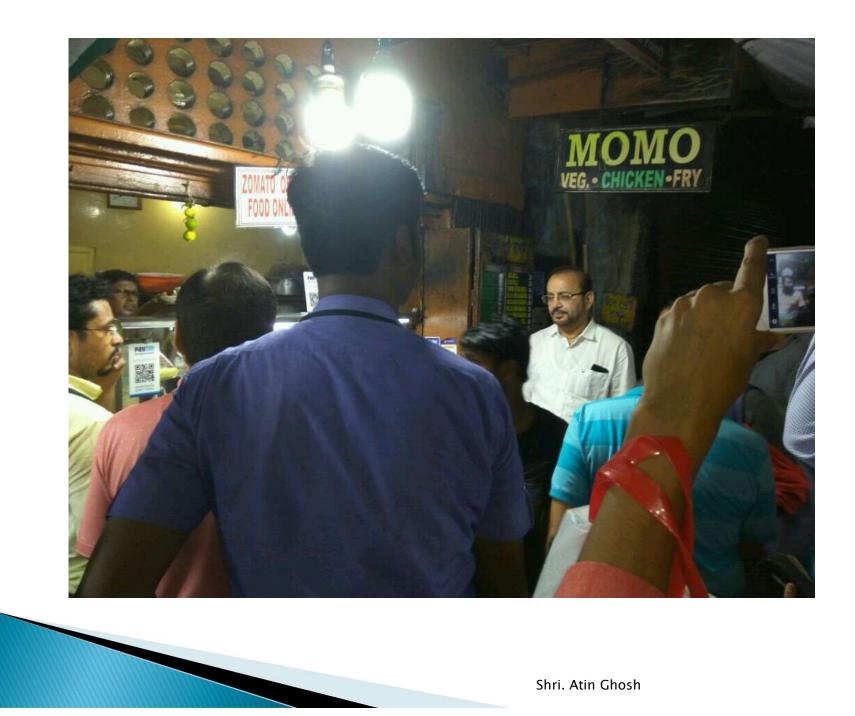
My strong belief is that regulation cannot be done sitting in the comfort of my office. Hence I personally take to the streets on a regular basis to check on the status of Street Food, discuss with vendors, customers, local Police and others to find out their difficulties, starting from taste and quality; usage of ingredients, availability of water; garbage disposal; lighting; accessibility; cleanliness of area and any other related problems.

Subsequently, I try to discuss about these issues with my officers and take relevant corrective actions.

Here are a few glimpses of what I just mentioned:















Shri. Atin Ghosh







Shri. Atin Ghosh



In 2015, when I took over the charges of this department, one of the major bottlenecks I faced was inadequate number of officers to monitor or assess the quality of Street foods to improve both safety as well as nutritive value.

The number of vendors were massive compared to our regulatory infrastructure.

Hence it was imperative that we build up the required man force to deal with the issue in hand. I am proud to say that as of today, we are well equipped with manpower as well as infrastructure to strictly regulate Street Food Standards. You will be glad to know that to reinstate this successfully, the first step was initiated by **WHO** in India, in a meeting in Mysore in 2016, December. And I feel proud to say that I chaired this consultation.



In this meeting many municipalities, institutions, scientists, UN agencies etc. participated which was coordinated by Dr. Indira Chakravarty and conducted by the Foundation for Community Support and

Development (FCSD), our NGO partner in this.

Here are a few glimpses:









Shri. Atin Ghosh

I am very glad to state that based on this Bureau of India Standard (BIS) the standard creating agency of Government of India created a revised ISO Standard (IS 16066 : 2017) which helps in a fast, simple and non-laboratory linked audio – visual testing for first level selection of safe foods (vendors). This also helps us in identification of the cause of the problems as more than 40 individual indicators are used.



भारतीय मानक IS 16066 : 20 Indian Standard
फेरी लगाकर खाद्य पदार्थ बेचने वाले
— खाद्य सुरक्षा अपेक्षाएँ
(पहला पुनरीक्षण)
Street Food Vendors — Food Safety Requirements (First Revision)
ICS 67.020
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© BIS 2017
भारतीय मानक ब्यूरो BUREAU OF IN DIAN STANDARDS मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली-1100 MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MAI NEW DELH-110002 www.bis.org.in www.standardsbis.in
March 2017 Price Grou

Lastly, I will like to say that we are now conducting a massive study on this, covering 104 areas of Kolkata, which covers assessment and evaluation; targeted awareness generation; reassessment to evaluate impact and then assessing its sustainability. It is an unique study as there are partners from all relevant agencies like the

- Kolkata Municipal Corporation (KMC) Municipality,
- World Health Organization United Nations,
- Bureau of Indian Standards (BIS) Government,
- Foundation for Community Support and Development (FCSD) -NGO and
- Kinley Parivartan Industry.

Shri. Atin Ghosh

I am determined to improve the quality and safety of street food in my city, the "**City of Joy**".

We in Kolkata like to eat safe, live safe and feel safe – to be happy, healthy and joyful, like all of you here.

The common man (who eats at the street) to a tourist (who also eats at the street) must feel satisfied and happy.



- I again convey my best regards to everyone here and thank the WHO and FAO for inviting me.
- And all good wishes to the Hon'ble mayor and the people of Bangkok.
- I look forward to seeing him in the International Mayor's summit being held in Dusseldorf next month.







Shri. Atin Ghosh



Prof (Dr.) Indira Chakravarty Padmashri PhD, D.Sc

Chief Adviser, Public Health Engineering Department, Govt. Of West Bengal Director (Independent), ECL, Coal India Chairman, Water and Beverage sc. Panel, FSSAI, MOHFW, GOI Member, Empowered Programme Committee (EPC), National Health Mission (NHM), MOHFW, GOI Member, Governing Council, Indian Council of Medical Research, Dept. of Health Research, MOHFW, GOI Member, Scientific Advisory Board (SAB), Indian Council of Medical Research, Dept. of Health Research, MOHFW, GOI Chairman, SAC, ICMR - RMRC, Dept. of Medical Research, MOHFW, GOI Chairman, SAC, ICMR - RMRC, Dept. of Medical Research, MOHFW, GOI Chairman, Stop Diarrhea Program, Save the Children Chairman, Innovation Center, Schevaren Chairman, Maharashtra Nutrition Project, Reckitt Benckiser Member, Advisory Board, National Center for Science Communication, GOI Member, Hygiene Index comm., Reckitt Benckiser Member, Core Committee, WASH, Swachh Bharat, MODWS, GOI Member, Advisory Board on Water Week, Singapore Water Convention, PUB, Govt. of Singapore Member, International Board of Advisers, International Inst. of Global Health, United Nations University (UNU)

Former Addl. Director General of Health Services, MOHFW, GOI Former Director & Dean, All India Inst. of Hygiene and Public Health, MOHFW, GOI Former Director, Chittaranjan National Cancer Inst., MOHFW, GOI Former Director Professor & HOD, Dept. of Biochemistry and Nutrition, AllHPH, MOHFW, GOI Former Regional Adviser ac (Nutr), WHO, South East Asia Regional office (SEARO) Former Regional Director, South Asia, MI, IDRC (Canada)



Street foods are an ever increasing phenomenon not only in Urban cities and towns, but even in peri-urban or even selected rural areas.



- Calcutta (Now Kolkata) was possibly one of the first cities to have started work on Street foods since **1992**, supported by **FAO**, in collaboration with **Calcutta Municipal Corporation (CMC)**.
- At that time we had also visited **Bangkok** for a **study tour**.
 - Mayor in council (Health), CMC
 - Commissioner of Police, Kolkata
 - Myself
- This project developed the 'Calcutta Model' which got the first prestigious 'Eduardo Sauma Award' of FAO. This study looked into safety status; management and monitoring methods to regulate Street foods and also their nutrient composition in 1995



Regional Seminar on Street Food Development Bangkok, Thailand, September 29- October 1, 1999

Some of the actions already initiated include

- Listing of all the vendors
- Designing of an ambulatory Kiosk
- Preparation of training manual for local administrators, street food inspectors, street food vendors and selected targets of consumers.
- Prohibition of hawking in certain roads
- Rehabilitation of some vendors in permitted areas
- Provision of water supply and latrine facilities to permitted premises

Subsequently FAO established the Regional Centre of Excellence for street foods in Asia at All India Institute of Hygiene and Public Health with Prof. Indira Chakravarty as the Regional Coordinator on a joint agreement signed between the Hon'ble Minister of Health and Family Welfare, Govt. of India and the ADG and Regional Representative RAPA, FAO of United Nations.



A FAO Regional Technical Meeting on street food was held by All India Institute of Hygiene and Public Health, Calcutta, in November 1995 with experts on street foods from various countries viz. China, Colombia, France, India, Indonesia, Mauritania, Peru, Philippines, Thailand, Togo and in 1996 with Police Chiefs and Mayors of 13 important cities of the region.

In December 1996 another seminar supported by FAO of United Nations was held on Integrated Approach for Improving Street Foods by the All India Institute of Hygiene & Public Health, Calcutta with participation from 13 countries which aimed at facilitating an exchange of views amongst Mayor level officials of municipal administrations and chiefs of police of importance cities in Asia. The meeting for the first time brought a linkage, co-operation and co-ordination amongst all concerned Departments. The seminar was attended by 25 participants and 18 observers representing 13 cities including Bangkok, Beijing, Calcutta, Colombo, Dhaka, Hanoi, Jakarta, Kathmandu, Kuala Lumpur, Manila, Phnom Penh, Vientiane and Yangon. Subsequently a National Committee on safety of street foods of Govt. of India has also been formed with Additional Secretary, Ministry of Health and Family Welfare, Govt. of India, Additional Secretary, Ministry of Agriculture, Govt. of India, Director General of Health Services, Govt. of India, Food and Agriculture Organization with Prof. Indira Chakravarty as Member Secretary.

Based on the Calcutta study a future proposal has been initiated by the Calcutta Municipal Corporation to be considered by the National Committee which envisage following activities.

- Development of a "Model Street Food Corner" on the street behind the Writer's Building area which is predominantly a street food vending area
- To create awareness continuous training would be imparted at all level of street food preparation right from start till the end involving all supportive agencies
- Data generation on small town a smaller municipal settings
- Increase involvement of women in the entire sector at all levels.

This would help in developing country strategies as well as Regional Strategies for this part of the world to improve the overall street fcod situation in cities, towns as well as periurban areas.

At the end Prof. Indira Chakravarty conveyed the best wishes and invitation of the Chairman of the National Committee on Safety of Street Food, Mr. J. V. R. Prasad Rao, Additional Secretary, Ministry of Health & Family Welfare to hold the next meeting in India. He had conveyed this to Prof. Indira Chakravarty indicating all his support and commitment to this Programme.



Increase of Dependency on Street Foods

- High Urban migration
- Huge **Population pressure**
- Fast service,
- Very Tasty
- Low cost (Most affordable))
- Immense variety Both Traditional and fast food
- Needs minimal space to function
- Easy employment for jobless (Informal Economy) Huge employment
- Needs no formal training

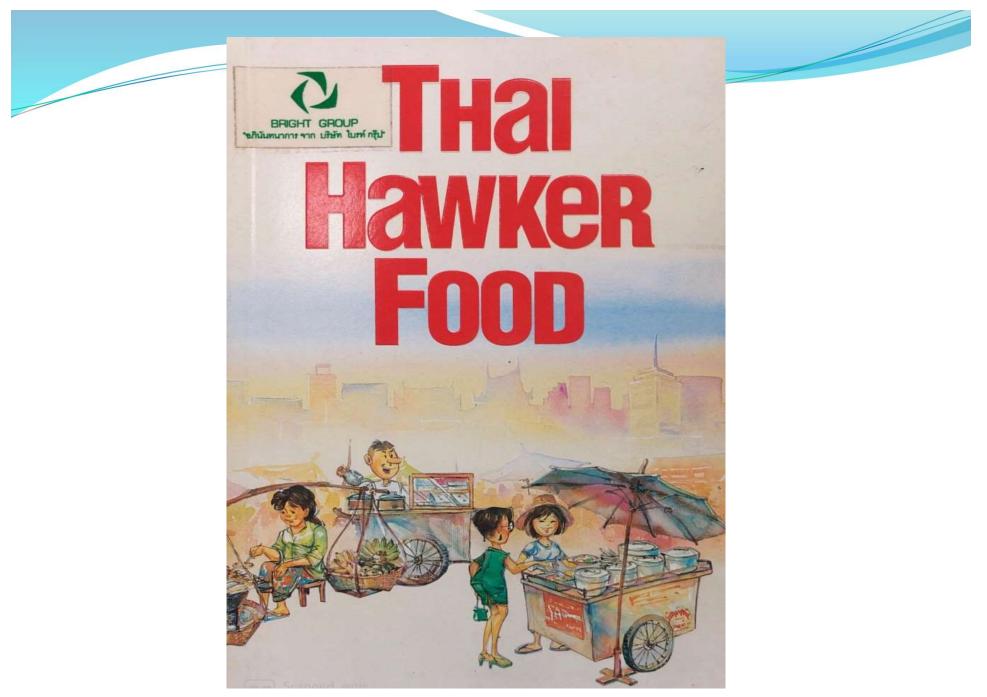
Problems with Street Foods (1/2)

- Questionable quality & safety of Food and beverages served.
- Unsanitary food handling.
- Use of inadequate **quantity** and unsafe **quality** of **water**.
- Poor personal hygiene of Vendors.
- Improper washing methods.
- Uncivic behaviour of Vendors and consumers.
- **Poor sanitation** around the area.
- Open garbage accumulation.
- No segregation of organic / Inorganic garbage
- **Difficulty in accessibility** to facilities water, latrines, garbage bins etc.
- Contamination from open environment.

Cont...

Problems with Street Foods (2/2)

- Illegal actions by vendors eg: drawing of unauthorised electricity, over use of polluting cooking fuels etc.
- **Poor processing** technologies. affects nutritive quality
- Unhealthy dietary composition selectively
- No knowledge of vendors and consumers on balanced nutrition
- **Drudgery** of Vendors No access to amenities, hard labour etc.
- Often **poor health of vendors**, causing contamination.
- No social coverage of vendors
- Poor coordination among all stake holders.
- Non- cooperation of authorities.
- No reporting or support mechanism to get support for vendors / customers.



Prof (Dr.) Indira Chakravarty

Street Foods and Non-Communicable Diseases INTRODUCTION

- The concept of **nutrition transition** was to change the dietary patterns of populations.
- Nutrition transition has contributed to accelerating the epidemiological transition, in other words, a gradual increase in chronic non-communicable diseases such as overweightness and obesity, type II diabetes, arterial hypertension, dyslipidemia, cardiovascular disease and cancer.
- This has also affected street foods

(Ababio PF, Lovatt P (2015) A review on food safety and food hygiene studies in Ghana. Food Control 47: 92-97. and Popkin BM (2002) What is unique about the experience in lower-and middle-income less-industrialized countries compared with the very-high-income industrialized countries? The shift in stages of the nutrition transition in the developing world differs from past experiences. Public Health Nutr 5: 205-214.

Street Foods and Non-Communicable Diseases INFERENCES

 Despite the fact that street foods have been sold for numerous decades and provide a source of income to many families, there is a dearth of data regarding the contribution of street foods to the nutritional value of the diet.

(Steyn NP, Mchiza Z, Hill J, Davids YD, Venter I, et al. (2013) Nutritional contribution of street foods to the diet of people in developing countries: a systematic review. Public Health Nutr 17: 1363-1374; Haslam DW, James WPT (2005) Obesity. Lancet 366: 1197–1209. and Lobstein T, Baur L, Uauy R (2006) Obesity in children and young people: a crisis in public health. Obes Rev 5: 4-104.)

 Street food ingredients are country/region specific and rarely they are reported and/or analysed.

(Namugumya BS, Muyanja C (2011) Contribution of street foods to the dietary needs of street food vendors in Kampala, Jinja and Masaka districts, Uganda. Public Health Nutrition 15: 1503-1511. and Draper A (1996) Street Foods in Developing Countries: The Potential for Micronutrient Fortification. John Snow, Inc/OMNI Project 4-104.)

• Several social, cultural and economic issues influence this practice.

The Calcutta Model (1/3)

PROXIMATE NUTRIENTS AND CALORIFIC VALUE OF SOME STREET FOODS (1/2)

Foods	Weight (gm.)	Protein (gm.)	Fat (gm.)	Carbohydrate (gm.)	Energy (K.cal.)
Meal (Rice, Dal, Egg Curry)	500	26.0	14.0	174.0	966.0
Meal (Rice, Dal, Meat Curry)	500	30.0	15.0	175.5	955.0
Meal (Rice, Dal, Fish Curry)	500	28.0	13.0	176.0	933.0
Meal (Rice, Dal, Veg. Curry)	500	21.0	12.0	183.0	924.0
Egg Chow	250	18.1	27.7	75.9	624.4
Mutton Chow	250	15.8	21.7	75.9	56.2
Veg. Chow	250	11.8	21.0	77.0	543.9
RDA		1 gm./kg. B.W.	40.0 gm.	455.0 gm.	240 C K.cal.

Cont...

The Calcutta Model (2/3)

PROXIMATE NUTRIENTS AND CALORIFIC VALUE OF SOME STREET FOODS (2/2)

Foods	Weight (gm.)	Protein (gm.)	Fat (gm.)	Carbohydrate (gm.)	Energy (K.cal.)
Egg Roll	150	12.6	22.3	41.3	416.7
Mutton Roll	150	10.0	16.2	40.4	347.5
Veg. Roll	500	6.1	15.5	43.7	338.8
Egg Curry	200	7.7	27.0	13.0	324.9
Paratha	75	5.5	5.5	37.0	219.5
Paratha Curry	200	1.8	10.0	23.9	192.9
Ghugni	100	8.2	5.5	27.1	190.4
Samosa	30	1.2	7.1	9.2	105.5
RDA		1 gm./kg. B.W.	40.0 gm.	455.0 gm.	2400 K.cal.

The Calcutta Model (3/3)

CONCLUSION

- Most of the food were high on carbohydrate
- Meals were mostly balanced
- Since most of these were traditional foods, they possibly were much more balanced, compared to other fast foods

Issues to be Considered

For improving the management of Street Food sector the **Primary Issues** identified are therefore –

- Improving **safety and hygienic** standards
- Improving **nutritive value** and encourage healthy dietary composition
- Awareness of vendors in all respects
- Customer awareness
- Improving Environmental hygiene and overall cleanliness of the areas
- Improved Monitoring and assessment method, which shall be simple; easy to implement; cost effective; fast and scientifically acceptable.

Monitoring of Street Food (1/2)

Monitoring is not only a problem but nearly impossible

Reasons:

- 1. Extremely **Limited** regulatory **man power** for monitoring, training, hand holding, awareness generation etc.
- 2. The existing **Monitoring Process** is **cumbersome**, time consuming, needs laboratory support and expensive.
- 3. The existing Food Safety assessment method also does not identify the cause of the problem
- 4. It does not have a **Preventive approach**

Cont...

Monitoring of Street Food (2/2)

What is needed

- To get a simple, easy, quick as well as dependable method which can be used by all stakeholders, including the Vendors, for monitoring the quality and safety of street foods. – This can be an excellent method to segregate the vendors at Primary Level with best, good, fair and poor behavior.
- 2. Grading of vendors using a scientifically approved Scoring method
- 3. The **reason for the unhealthy / unsafe food** can be identified.
- 4. Initiate a **Preventive approach** based on it.

Actions Taken to Develop a Simple Monitoring and Management Method (1/8)

Method developed with support of **WHO** by the Foundation for Community Support and Development (FCSD) **in December 2016**

Two levels

Level 1 – Simple Audio Visual testing (No Lab support needed) – ISO 16066:2017

This will help in –

- Quick and easy audio-visual assessment at primary level,
- Segregate vendors into various categories at grade them
- Identify the cause of the problems
- Poorly functioning vendors identified for Level 2 testing

Level 2 – Traditional Laboratory linked method

Actions Taken to Develop a Simple Monitoring and Management Method (2/8)

1. Categories – (Following the 'Calcutta Model')

Category I : Food prepared as a small scale industry Category II : Food prepared at vendors home Category III: Food prepared at place of vending

- 2. Assess quality using -
 - Indicators 10
 - Sub Indicators 39-42

Covers a number of all essential parameters, needed for monitoring of quality and Safety of Street foods and beverages

- 3. Scoring
- 4. Grading
- 5. Star Rating

Actions Taken to Develop a Simple Monitoring and Management Method (3/8) INDICATORS (1/4)

1. Raw Material

- 1.1. Fresh
- 1.2. Good Quality (Visually)
- 1.3. Healthier and seasonal raw ingredients used preferentially

2. Storage of Raw material

- 2.1. Washed and Cleaned
- 2.2. Separated from cooked food

3. Processing and Cooking

- 3.1. Use of clean equipment's, amenities' etc.
- 3.2. Clean hands and overall personal cleanliness of handler
- 3.3. Use of potable water
- 3.4. Through cooking done

Cont...

Actions Taken to Develop a Simple Monitoring and Management Method (4/8) INDICATORS (2/4)

4. Transportation to street food stall / Kiosk

- 4.1. Properly packed / covered
- 4.2. Reach area within a short time (Maximum 4 hours)
- 4.3. Unpacked using clean hands

5. Display / sale of food

- 5.1. Food is kept covered
- 5.2. Sold using clean food grade holding utensils and serving utensils with no damage
- 5.3. Disposable utensils not reused
- 5.4. Proper cleaning and washing of equipment's and utensils
- 5.5. Veg and Non-Veg food separated
- 5.6. Cooked and uncooked food separated
- 5.7. Cooked food sold within 4 5 hours and temperature maintained
- 5.8. Heat food thoroughly

Cont...

Prof (Dr.) Indira Chakravarty

Actions Taken to Develop a Simple Monitoring and Management Method (5/8) INDICATORS (3/4)

6. Use of left overs / garbage management

- 6.1. Disposed off in covered bins
- 6.2. Segregated into Inorganic and Organic wastes

7. Personal Hygiene and Health of Food Handlers

- 7.1. Wash hands with soap and water before touching food
- 7.2. Wear clean clothes / apron
- 7.3. Have no contagious diseases
- 7.4. Any cuts on fingers are properly bandaged and kept clean
- 7.5. Wear no jewellery on fingers /palms, if used shall be covered
- 7.6. Disposable gloves (if used) not reused
- 7.7. Loose hair tied and covered

Cont...

Actions Taken to Develop a Simple Monitoring and Management Method (4/8)

INDICATORS (4/4)

8. Overall cleanliness

- 8.1. Working surface clean and hygienic
- 8.2. Kiosk cleaned with safe cleaning agent
- 8.3. Placement not near any latrine /garbage dump / dirty area
- 8.4. Surrounding area clean / not congested
- 8.5. Properly illuminated

9. Water and Ice

- 9.1. Source of water Potable
- 9.2. Water container cleaned daily with safe cleaning agents
- 9.3. Water contained covered with a side tap
- 9.4. Ice made of potable water
- 9.5. Ice used for storage, kept separately

10. Nutrition

- 10.1. Use of healthy Seasonal vegetables and fruits
- 10.2. Healthy cooking methods eg. Steaming, boiling, sauté etc.
- 10.3. Avoid of repeated heating/use of oil

Cont...

Actions Taken to Develop a Simple Monitoring and Management Method (2/8) STANDARD CREATED

- Based on this a revised ISO standard (ISO 16066:2017) was created by the BIS (Bureau of Indian Standard) – The official Standard agency of Govt. of India (2017)
- Rolled out in Kolkata Jointly by the **BIS** and the **Municipal Corporation of Kolkata** (KMC) (2017), with participation of **WHO**

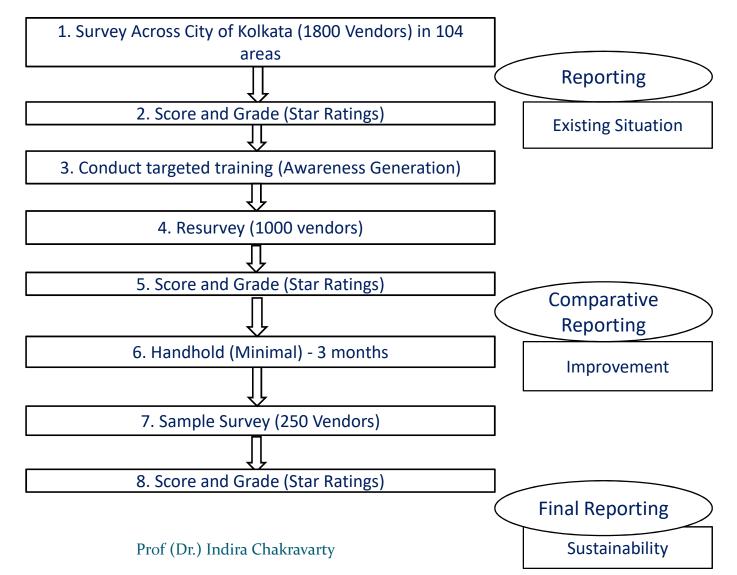


Pilot Study

A study has been initiated with Joint partnership of several concerned agencies –

- 1. The Kolkata Municipal Corporation (KMC)
- Foundation for Community Support and Development (FCSD) The NGO - Conducting the study
- 3. Bureau of Indian Standard (BIS) Govt. of India
- 4. World Health Organization (WHO) Knowledge Partner
- 5. Kinley Parivartan Private sector (A multinational Corporate Industry)

Pilot Study STEPS OF ACTION





Coverage

City	Zones to be Covered	Area to be Covered	No of Vendors
Kolkata, India	10	104	≅ 2000

Outcome (1/4)

TYPE OF VENDORS

Inferences					
Category I	76% (Highest) – Prepare at point of sale				
Category II	16.6% - Prepared at Vendors home				
Category III	7.3% - Prepared at small scale manufacturing units				



RATING AND GRADING OF VENDORS

Among the 1767 vendors surveyed it is seen that –

- Excellent Vendors (2.1%) numbering **37** (5 Star)
- Very good Vendors (18.5%) numbering 326 (4 Star)
- Good Vendors (61.34%) numbering 1082 (3 Star)
- Fair Vendors (18.08%) number 319



Inferences –

Types of food sold

- Snacks (48.55%) Maximum
- Meal (25.52%)
- Other (25.75%)

Outcome (4/4)

IDENTIFICATION OF ISSUES ON WHICH SCORING WAS POOR

Issue	Percentage (%) of vendors did not follow
1. Garbage segregated	96%
2. Garbage disposal in covered bins	80%
3. Hair uncovered	78%
4. Hand washing	77%
5. Disposable gloves (if used) not reused	61%
6. Water container cleaned daily with safe	49%
cleaning agents.	4970
7. Kiosk cleaned with safe cleaning agents	46%
8. Water container covered with side tap	43%
9. Avoidance of repeated heating/usage of oil	38%
10. Wear clean clothes /apron	37%

Future Actions Suggested

- 1. Revision of the standard marginally Already in discussion with the Bureau of Indian Standard (BIS)
- 2. The draft will be prepared immediately (possibly first week of September, 2019)
- Will be shared at the WHO supported meeting on Street Food standards for Southern States of India to be held in Hyderabad (19/20 September)
- 4. Changes suggested
 - Minor wordings related to some hygienic issues
 - Add more nutrition related Parameters
 - Add on Garbage management



Thank You!

Prof (Dr.) Indira Chakravarty

Group work 1. Brainstorming

- Identifying possible action points related to promoting healthier street foods including filling information/knowledge gaps
- Convergence and working with other sectors: Identify possible agencies that would lead interventions to promote healthier street foods, other sectors/partners and stakeholders and opportunities and constraints in implementing programmes
- Monitoring and evaluation

Bangladesh, India, Thailand,

Table 1

Point 1: Identifying possible action points

S.no	Parameter	Bangladesh	India	Thailand
1.	 Data & Knowledge Gap 1. Landscape of Vendors 2. Food Safety 3. Nutrition 	Data unavailable– mapping of street food vendors (1-3) – first do mega cities (infrastructure, food supply etc., understand consumers)	Generate more data and scale up data collection with support of State/City	Data is available in terms of licensing but partial data on food safety & nutrition
2.	Health/Nutrition education to both the consumer and vendors to align supply and demand	Sporadic NE activities towards consumers – no education to the vendors. Food based dietary guidelines by ministry of food and health exist but not disseminated widely.	Communication to the urban groups of consumers but some rural pockets. Need for an extension.	Through the Thai Health Foundation - Health literacy to producer for license including body check ups. Healthy eating behaviours not efficiently disseminated to the consumer.
3	Public health comparative outcome in terms of safe and safe & healthy food	Sensitization of policy makers must be done	Needs more sensitization however some States are	
4	SPOC	BASF – Ministry of Food	Health Department	Health Department

Point 2: Convergence and working with other sectors

- (Centre/State)Ministry of 1. Food Processing & industry, Regulatory 3. authorities - FDA, Standards, Health, Social welfare, local authorities, Urban & Rural 4. Development, Water & Sanitation, Agriculture, Livestock, Culture & Tourism, Finance, Education, Information & Broadcasting, Skill development, labour
- 2. Vendor Associations/ NGOs/ Civil organizations/

- Consumer research organizations
- Media/ Influencers/ Religious Leaders/ UN Agencies
- Universities / Academia / health Professionals

Point 3: Monitoring & Evaluation

- Design the project and identify parameters for monitoring
 - Evidence gathering for baseline data

Levels at all departments - Centre/State and Local Govt

No	Possible action points	Country
	 Dissemination and advocacy meeting related stake holders; Piloting at the provincial level (DKI Jakarta) : a. Stickerization not only for food safety but also for healthy food (less sugar, salt, and fat) b. Healthy food apps for the restaurant Develop healthier foods recommendation for street vendor Training course for vendor Improve healthy diet promotion Surveillance for the street food Joined program with NCD Department Draft street food regulation 	INDONESIA, VIETNAM, CAMBODIA INDONESIA VIETNAM VIETNAM INDONESIA, VIETNAM CAMBODIA CAMBODIA CAMBODIA
	Identify possible agencies Local government unit Ministry of Health Food and Drug Department Ministry of Agriculture Ministry of Education Ministry of Trade Ministry of Science and Technology Social Political Association	VIETNAM, INDONESIA VIETNAM, INDONESIA, CAMBODIA VIETNAM, INDONESIA, CAMBODIA VIETNAM, INDONESIA VIETNAM, INDONESIA VIETNAM, INDONESIA VIETNAM
	 Monitoring and evaluation Development of monitoring and evaluation instrument and mechanism frame work; Technical supervision 	INDONESIA INDONESIA, CAMBODIA

Sri Lanka

1. To map the informal food sector landscape Pilot – Colombo municipal council

2. Action point – to address lunch packets



2/3

- Standardize the lunch packet based on food based dietary guideline recommendations that is in place in Sri Lanka
- 2- way discussion for cost and taste feasibility

Variables to assess

Mode of selling

- Street
- Mobile
- kiosks

Source

Vendor Profile

- Cooked at home Consumer profile
- Point of sale
- Small factories

Food safety Hygiene Nutrition

- F&V
- Source of fat
- Whole meal- lunch packets

Stake holders

- Ministry of Health
 - Nutrition Division
 - Food Safety Directorate
- Public Health Department of Colombo Municipal Council
- Faculty of Medicine, University of Colombo
- Canteen Association
- food vendors association
- CBO

Monitoring and evaluation

Assess whether the standardized lunch packed complies with recommendation Customer and vendor acceptance

Changes to food preparation methods and labelling of street vended foods.

Visith Chavasit Institute of Nutrition Mahidol University, Thailand

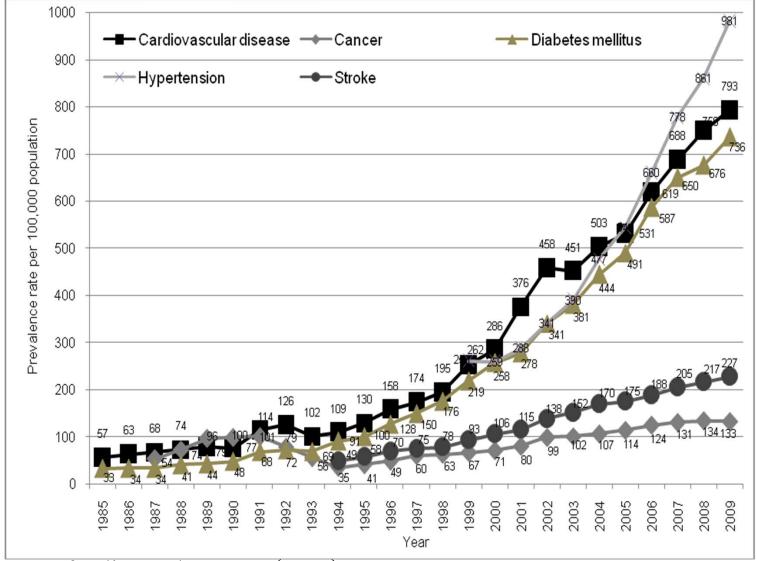
Nutrients that the Thai p	eopie rec	elved ir	om 100d	consum]	ption (19	00-2009	
Nutrients received	Year				complex		
(per person per day)	1960	1975	1986	1995	2003	2009	carbohydrates but
Energy (kcal)	1821	1749	1766	1751	1436	1443	increase
Carbohydrate (g)	359.0	310.6	293.7	276.9	222.9	197.9	consumption of
Protein (g) 1	49.1	50.2	50.8	58.1	53.5	56.4	sugar
Fat (g) 🔨	18.0	25.5	42.6	45.6	38.1	45.2	
% energy from Carbohydrate	78.9	71.0	66.7	64.3	62.1	54.9	
% energy from Protein	10.8	11.5	11.5	13.2	14.9	15.6	CHO: Pro:
% energy from Fat	8.9	13.1	21.8	22.2	23.9	28.2	fat
Animal protein (g)	15.2	19.6	22.9	29.7	29.2	37.5	55:16:28
Calcium (mg)	278	359	301	344	220	313	
Iron (mg)	10.0	12.9	11.8	18.1	8.5	10.3	
Vitamin A (µg)	231.5	367.9	608.3	676.7	171.5	428.4	
Thiamin (mg)	0.48	0.63	0.89	0.89	0.79	0.72	
Riboflavin (mg)	0.40	0.52	0.73	1.1	0.79	0.93	2X of the limit
Niacin (mg)	15.0	12.8	13.3	14.7	13.7	13.3	for healthy
Vitamin C (mg)	34.0	30.0	95.9	94.8	34.7	75.1	consumption
Sodium (mg)	-	-	-	-	-	4030.7	
Potassium (mg)	-	-	-	-	-	1277.4	
Cholesterol (mg)	-	-	-	-	-	262.6	
Dietary fiber (g)	-	-	-	-	-	8.77	

Reduce

Nutrients that the Thai people received from food consumption (1960-2009)

Modified from: Department of Health, 1995 and 2003; Aekplakorn et al., 2011

Prevalence of NCDs in Thailand



Source: Bureau of policy and strategy (2011)

Death from non-communicable diseases in different countries of the ASEAN (2008).

Country	Total Pop (x1000)	NCD death (x1000)	% death
Brunei Darussalam	415	1	0.240964
Cambodia	15269	56.5	0.370031
Indonesia	234181	1064	0.454349
Lao PDR	6230	23.8	0.382022
Malaysia	28909	89.5	0.309592
Myanmar	60163	242.4	0.402905
Philippines	94013	309.6	0.329316
Singapore	5077	17.9	0.352570
Thailand	67312	418.4	0.621583
Vietnam	86930	430	0.494651
ASEAN	598498	2653.2	0.443310
ASEAN6	429907	1900.5	0.442072
CLMV	168592	752.7	0.446462

Modified from: WHO (2011)





Street foods contribute at least 40% of energy intake for Thais



a alamy stock photo

KX2GNX www.alamy.com

Local franchised street food vendor





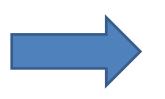




Local food court



Food court in Department Store





Nutritive values of street foods

- Macronutrient profiles: carbohydrates : protein : fat
- Problem nutrients:

Sodium and Saturated fatty acids

• No problem on *trans* fatty acid

Nutritive values of traditional street foods

	Energy	Energy density	СНО			Sodium		Distribut	ion of energy (/%)
Serving size (g)	(kcal)	(kcal/g)	(g)	Protein (g)	Fat (g)	(mg)	СНО	protein	fat	Sat. fat
Rice topp	ed with coconut mil	k based curry e.g. Ri	ce with green cu	rry, rice with mac	kerel in dried red	curry, and rice with mat	saman curry			
297 (252-353)	365 (307-487)	1.23	52 (45-66)	14 (12-16)	11 (8-18)	1286 (1042-1547)	58 (54-60)	16 (13-20)	27 (22-33)	13 (9-17)
Rice topped with cu	ırry without coconu	t milk e.g. Rice with	sour curry, rice v	with tai pla curry,	and rice with yell	ow curry				
330 (295-371)	323 (314-339)	0.98	66 (64-69)	11 (10-12)	2 (1-2)	1149 (971-1487)	82 (81-84)	13 (12-14)	5 (3-6)	1 (1-2)
Rice topped with stir-fried vegetables and/or meats e.g. Rice with stir-fried chicken and basil leaves, rice stir-fied cat fish and pork					ied cat fish and spicy mi	ked herbs, a	> 10		e and crispy	
298 (228-395)	466 (402-546)	<u>> 60</u>	0?? <mark></mark>	<u>19</u> (14-27)	16 (11-23)	1273 (608-1880)	54 (39-65)	(13-21)	ა (23-40)	10 (7-13)
Rice topped with Cl gravy	hinese style dishese.	.g. Rice cooked with	curry powder ar	nd chicken, rice co	oked in chicken b	roth, topped with steam	ed chicken, a	and rice top	ped with roast	ed pork and
304 (248-352)	541 (432-619)	1.78	69 (59-81)	21 (13-28))	20 (11-24)	1250 (906-1430)	51 (45-55)	15 (7-18)	34 (27-41)	11 (7-14)
Kow-taew: with sou	up e.g. Rice noodles	with meat ball and	soup, rice noodle	es with steamed c	hicken and soup					
552 (485-572)	364 (244-463)	0.66	43 (30-67)	24 (15-30)	11 (7-15)	2141 (1786-2649)	47 (38-58)	26 (22-33)	27 (19-32)	8 (6-9)
Kow-taew: without	soup e.g. Egg noodl	es with pork or rice	noodle with por	k						
255 (244-265)	498 (463-533)	1.95	49 (43-54)	22 (17-27)	25 (21-28)	2203 (2028-2377)	39 (37-41)	18 (13-23)	44 (41-47)	13 (12-14)
Kow-Tiew: fried and	d topped with sauce	s e.g. Fried rice noo	dle with pork an	d Chinese kale in	gravy					
425 (399-450)	482 (457-506)	1.13	56 (51-61))	21.8	15 (14-17)	1902 (1753-2051)	46 (45-48)	13	14 (39-43)	18 (16-20)
Kow- Tiew: Stir-frie	d e.g. Stir-fried noo	dles with prawn or s	tir-fried noodles	with chicken and	Chinese kale					
284 (250-320)	538 (486-633)	1.89	59 (56-82)	23 (20-27)	18 (16-21)	1204 (961-1592)	49 (46-52)	14 (10-17)	38 (37-38)	13 (11-15)
	ala ta T ara data a sa d	Nutrition Problems	ta Thattand							

Source: Fast Foods in Transition and Nutrition Problems in Thailand



Na contents in restaurant-prepared noodles before & after being seasoned

Sodium content in noodles prepared by seller before being seasoned by consumer							
Sodium content (mg/serving)	Fish ball	Tom Yum	Blood-curd soup	Duck	Pink sauce	Roasted pork	Average
Mean	1,592	1,547	1,393	2,150	2,071	1,522	1,682
Range	976-1,914	1,309-3,123	652-1777	1,607–3,296	1,364-2,909	1,284-1,878	652–3,296
Sodium content in noodles after being seasoned by consumer							
Sodium content (mg/serving)	Fish ball	Tom Yum	Blood-curd soup	Duck	Pink sauce	Roasted pork	Average
Mean	1,670	2,001	1,430	2,006	2,049	1,586	1,763
Range	865 – 2,439	1,305 – 3,370	761 – 2,096	1,482 – 4,415	1,308 - 3,128	1,098 - 1,995	761 – 4,415
% difference of sodium content before and after being seasoned by consumers	5	29	3	-7	-1	4	5

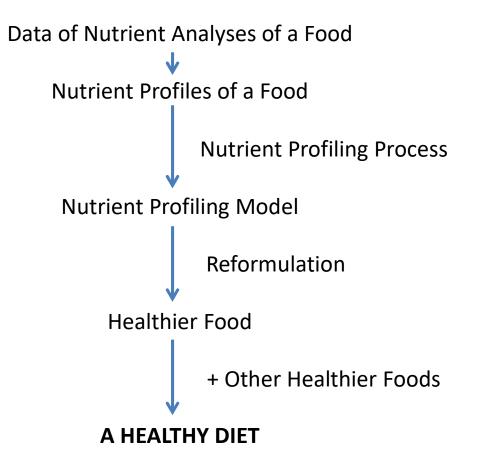
Studied by Thai President Foods PLC, 2010

Trans fatty acid problem

Fats/Oils	gram per 100 gram			
Palm oil	0.38			
Rice bran oil	0.63			
Soybean oil	0.81			
Margarine	0.08-0.38			
Shortening	0.02-0.46			



From nutrient profiles to <u>a healthy diet</u>

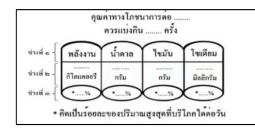


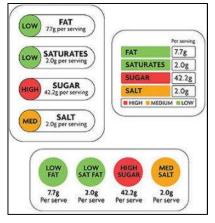
Population nutrient intake goals



Dietary factor	Goal (% of total energy, unless otherwise stated)		
Total fat	15-30%		
Saturated fatty acids	<10%		
Polyunsaturated fatty acids (PUFAs)	6-10%		
n-6 Polyunsaturated fatty acids (PUFAs)	5-8%		
n-3 Polyunsaturated fatty acids (PUFAs)	1-2%		
Trans fatty acids	<1%		
Monounsaturated fatty acids (MUFAs)	By difference ^a		
Total carbohydrate	55-75% ^b		
Free sugars ^c	<10%		
Protein	10-15% ^d		
Cholesterol	<300 mg per day		
Sodium chloride (sodium) ^e	<5 g per day (<2 g per day)		
Fruits and vegetables	≥400 g per day		
Total dietary fibre	From foods ^f		
Non-starch polysaccharides (NSP)	From foods ^f		

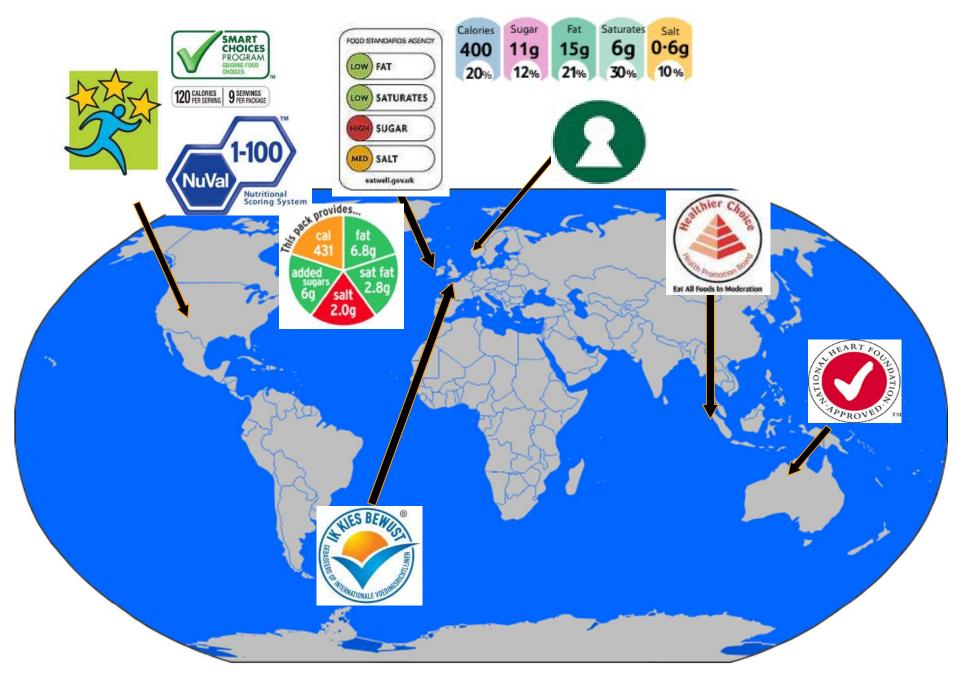
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Simplified Logo





Source: Popkin (2013)





Guideline for scoring system

Nutrient	Value per 2000 kcal	Value per 100 kcal		
Protein	50-100 g	2.5-5.0 g		
Total fat	32.5-65.0 g	1.65-3.25 g		
Saturated fat	20 g	1 g		
Fiber	25 g	1.25 g		
Sugar	25 g	1.25 g		
Sodium	500-2000 mg	150, 120, 100 mg		
Calcium 750-3000 mg		40-150 mg		
Iron	15-45 mg	0.75-2.25 mg		

Scoring system for values per 100 kcal

Nutrient	Linit	Score						
Nutrient	Unit	0	1	2	3	4	5	
Protein	Gram	<0.50, >5.00	0.50-1.00	1.01-1.50	1.51-2.00	2.01-2.50	2.51-5.00	
Total fat	Gram	<1.65, >3.25	2.94-3.25	2.62-2.93	2.30-2.61	1.98-2.29	1.65-1.97	
Saturated fat	Gram	>1.00	0.81-1.00	0.61-0.80	0.41-0.60	0.21-0.40	0-0.20	
Fiber	Gram	<0.25	0.25-0.50	0.51-0.75	0.76-1.00	1.01-1.25	>1.25	
Total sugar	Gram	>1.25	1.01-1.25	0.76-1.00	0.51-0.75	0.25-0.50	<0.25	
Calcium	Milligram	<8,>150	8-16	17-24	25-32	33-40	41-150	
Iron	Milligram	<0.14, >2.25	0.14-0.28	0.29-0.42	0.43-0.56	0.57-0.70	0.71-2.25	
Sodium								
First period	Milligram	<25, >150	125-150	100-124	75-99	50-74	25-49	
Second period	Milligram	<25, >120	101-120	82-100	63-81	44-62	25-43	
Third period	Milligram	<25, >100	85-100	70-84	55-69	40-54	25-39	

Higher score \rightarrow healthier







Sodium content in condiment

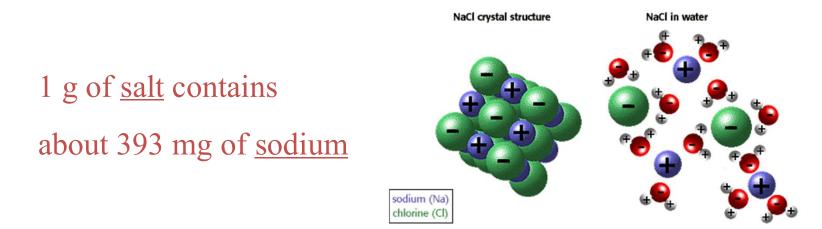
Conditionent	○	Sodium	% of	
Condiment	Quantity*	Range	Mean	requirement (1500 mg/d)
Salt	1 tsp	-	2000	133.3
MSG	1 tsp	-	610	40.7
Seasoning powder	1 stp	-	815	54.3
Bouillon cube	1 cube	-	1760	117.3
Fish sauce	1 tbsp	1070-1620	1350	90.0
Soy sauce	1 tbsp	880-1570	1190	79.3
Seasoning sauce	1 tbsp	1110-1340	1187	79.1
Oyster sauce	1 tbsp	450-610	518	34.5
Sweet chili sauce	1 tbsp	360-410	385	25.7
Chili sauce	1 tbsp	60-350	231	15.4
Tomato sauce	1 tbsp	90-190	149	9.9

*condiment 1 tsp = 5 g; Bouillon cube 1 cube = 10 g

Source: Kriengsinyos, 2013

Salt and Sodium

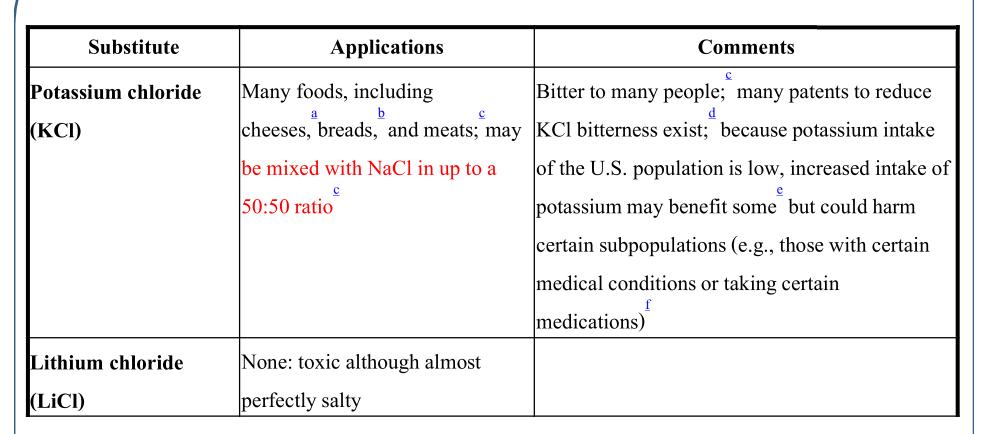
• Salt (NaCl) comprises 40% sodium and 60% chloride



Products available in the market may have replaced NaCl partially with other ingredients, such as potassium chloride (KCl). Their sodium content may be 25% to 40% lower than the regular

Selected Examples of Proposed Salt Substitutes

MAHIDOL



a:Guinee and O'Kennedy, 2007; b:Cauvain, 2007; c:Desmond, 2007; d:Porzio, 2007; e:Anthony, 2007; f:Dietary Guidelines Advisory Committee, 2005; g:Murphy et al., 1981; h:Kilcast and den Ridder, 2007; i: Desmond, 2006; j:Pszczola, 2007.

Source: http://www.ncbi.nlm.nih.gov/books/NBK50965/



Sodium and Potassium consumption of Thais

	Sodium	n (mg/d)	Potassiun	n (mg/d)		
Age (years)	male	female	male	female		
6-8	2683	2524	722	771	Recommendation:Sodium 2,000 mg/d	
9-12	2615	2720	828	832	Potassium 3,500 mg/d	
13-15	2777	2746	935	777		
16-18	3387	2891	1247	821		
19-30	3634	3338	1079	999		
31-50	3470	3470	1185	1119		
51-59	2962	3252	1142	916	Source: Aekplakorn 2011	
60-69	3367	3238	1114	1063		
70-79	2832	2963	1053	917		
≥ 80	3249	2851	1005	850		

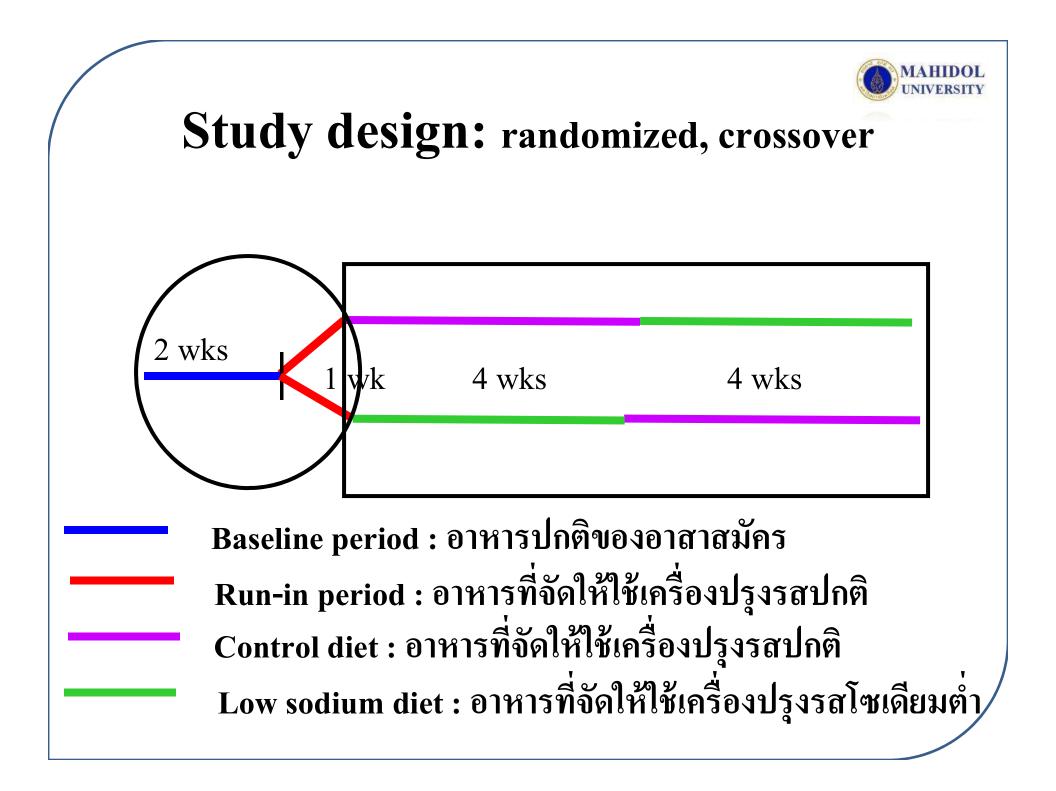


Effect of diets prepared by using sodiumreduced condiment on lowering blood pressure in hypertensive people



Study population

- 18 hypertensive subjects:
 - 15 subj: recently been diagnosed stage 1 hypertension
 - 2 subj: on antihypertensive medications
 - 1 subj: hypertension with diabetes mellitus

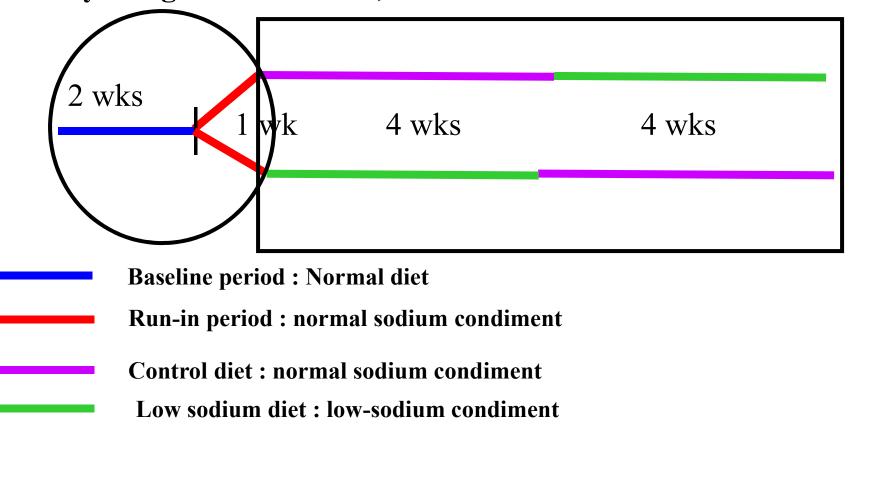




Effect of diets prepared by using sodium-reduced condiment on lowering blood pressure in hypertensive persons

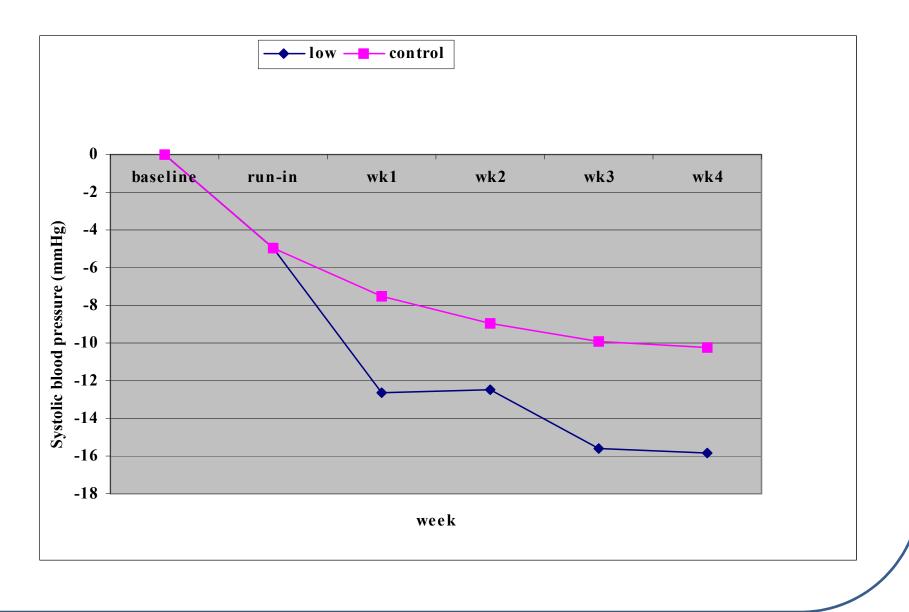
MAHIDOL

Study design: randomized, crossover



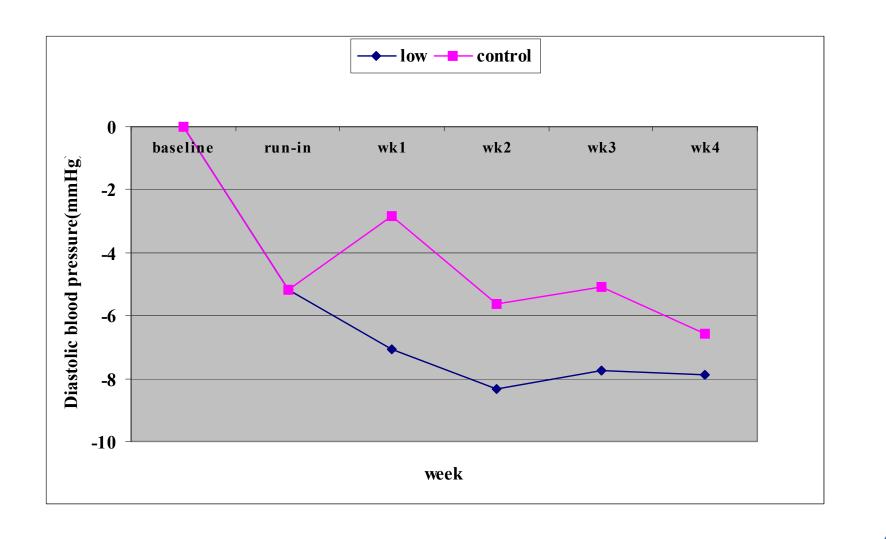


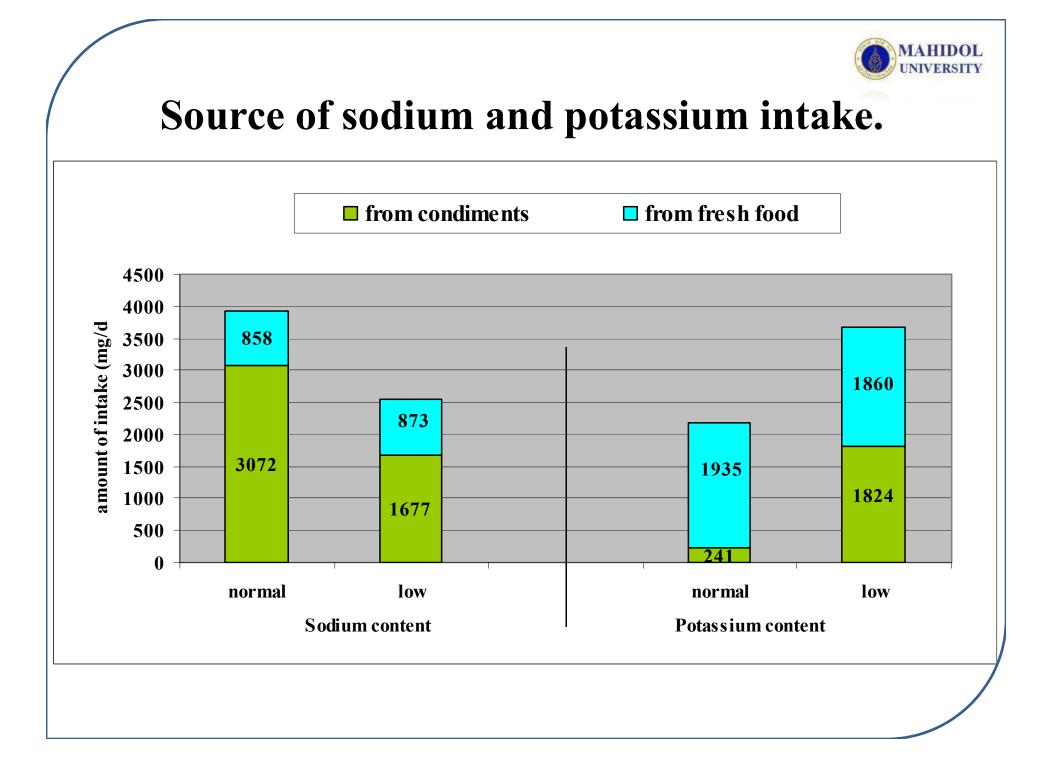
Mean change of systolic blood pressure

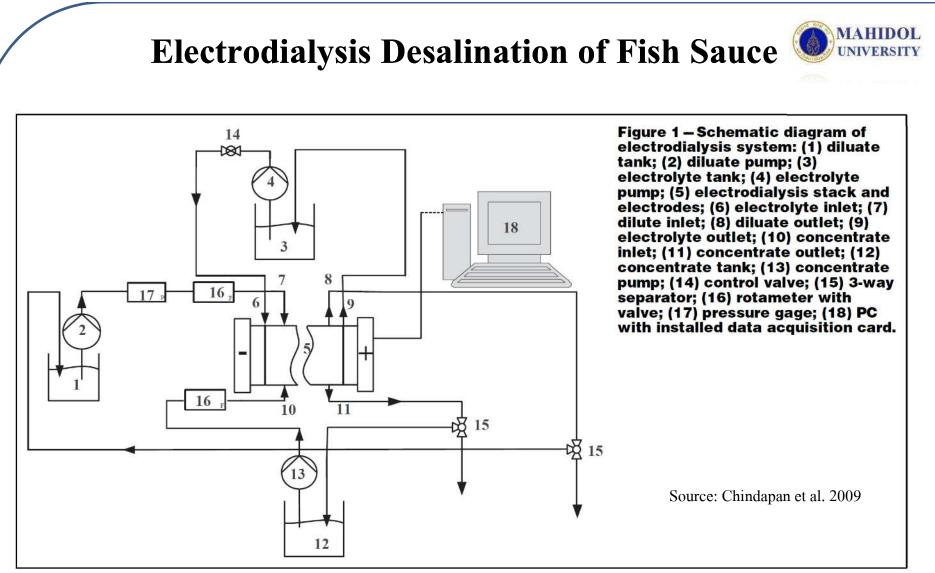




Mean change of diastolic blood pressure





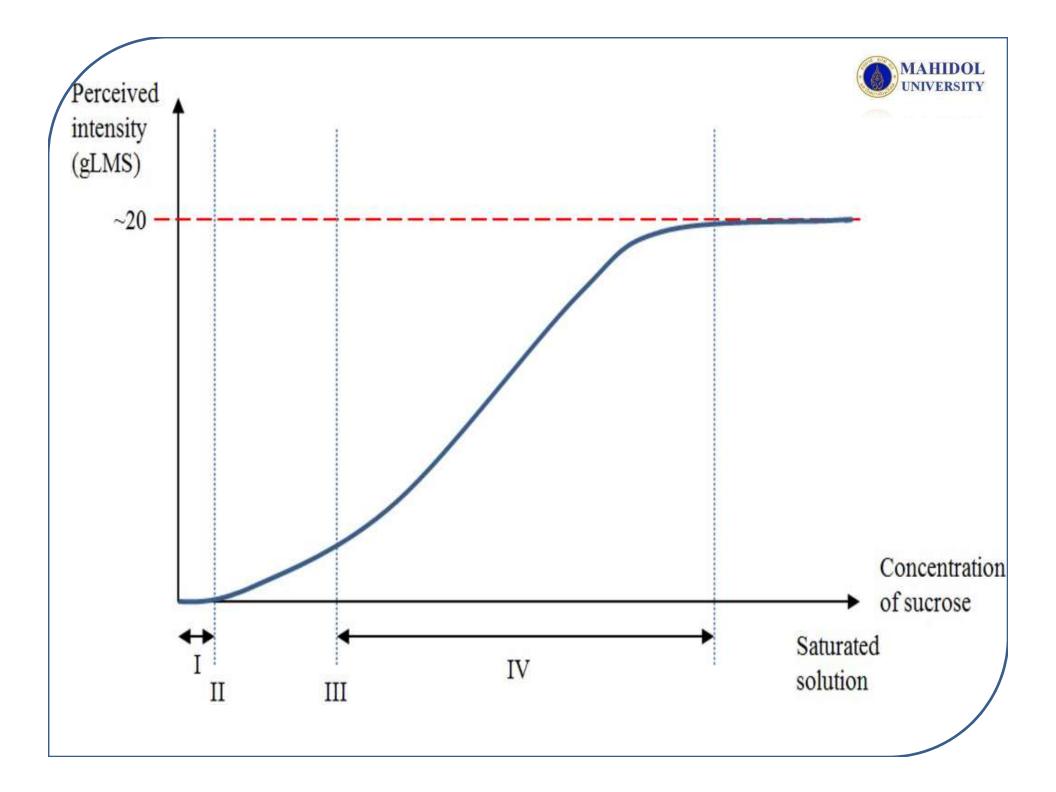


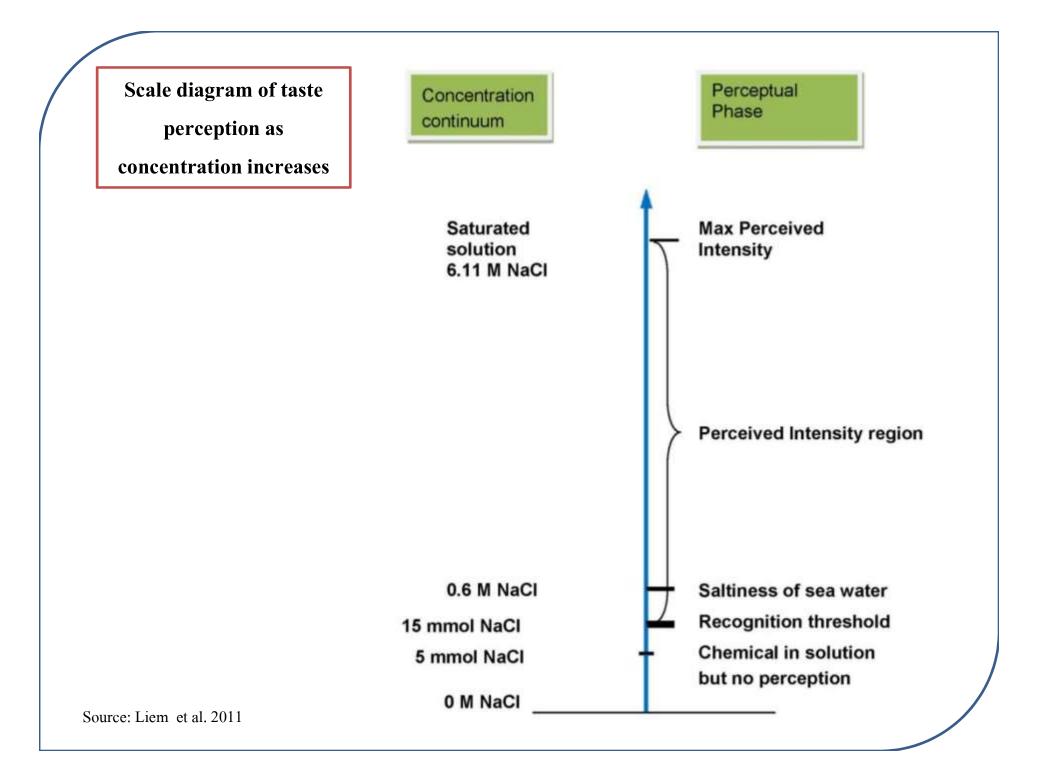
- Fish sauce with an initial salt content of around 25% (w/w) had undergone electrodialysis to reduce the salt content to various predetermined values.
- The optimum conditions should be the use of an input voltage of 6 V and the maintenance of the salt content of the treated fish sauce in the range of 6% to 14% (w/w).



Different sensory thresholds have been defined;

- <u>Absolute threshold</u>: the lowest level at which a stimulus can be detected.
- **Recognition threshold:** the level at which a stimulus can not only be detected but also recognized.
- **Differential threshold**: the level at which an increase in a detected stimulus can be perceived.
- **Terminal threshold:** the level beyond which a stimulus is no longer detected.

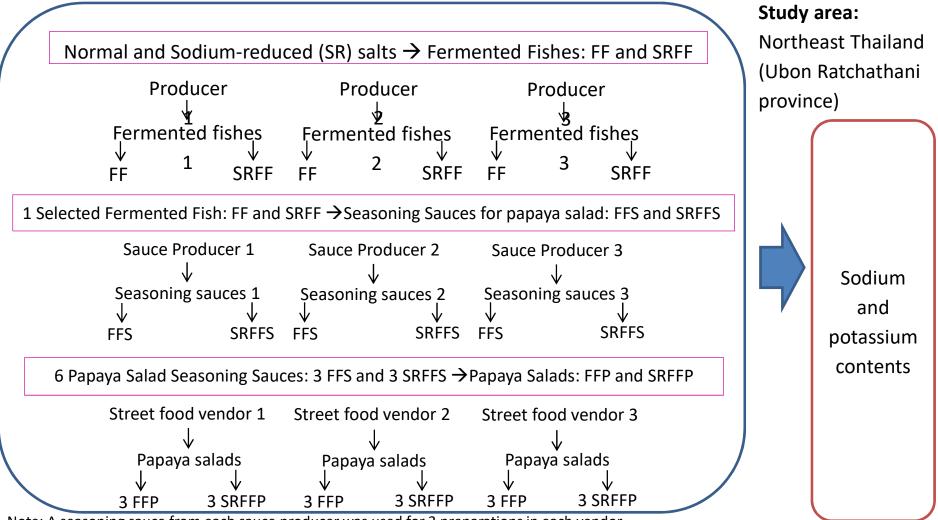








Use of low sodium salt as Primary Input



Note: A seasoning sauce from each sauce producer was used for 3 preparations in each vendor.

Na in papaya salad (1 serving, 160 g):

• 1,182 mg (59% of RDI) → 787 mg (39% of RDI)

K in papaya salad (1 serving, 160 g):

• 270 mg (8% of RDI) → 782 mg (22% of RDI)

Na/K ratio in papaya salad

7.24 → **1.71**

Conclusion

- Improvement of the nutrient profile of foods in restaurant and street food vendor is complicated.
- In this case, roles of Front of Pack labelling is limited but somehow is still beneficial.
- By naturally merging the healthier food products into these food services, a healthier diet can be obtained.



HEALTHER LUNCH PACKET PROGRAMME NEXT STEPS

Vision: healthy food for healthy city

Theme: healthy lunch pack for city of Colombo

Goal: to design and enforce the informal sector to market a healthy lunch pack within the city of Colombo.

Generating evidence/situational assessment:

Specific objectives

- 1. To conduct a market survey to identify the spectrum of the whole meal lunch packets sold within the city
- 2. To ascertain if the packs promote NCD
- 3. To design a healthier lunch pack (if necessary) in terms of its safety hygiene and nutritional value
- 4. To design a mechanism for its implantation monitoring evaluation and enforcement.

Urban planning

Explore ways to improve locations (zoning) and

- Provide water and sanitation
- Sustainable waste disposal and locations for segregated collection of waste

Use data from situational analysis to

- map where food is prepared
- explore improving transport time
- explore how to improve raw material (link with agriculture)

Activities

- 1. To formulate a working group comprising of ministry of health (director nutrition, DD food safety directorate, Academia, faculty of medicine)
- 2. Comprehensive sampling and analysis of lunch packs
- 3. To explore the possibility of adopting the "healthy plate" designed and promoted by the Ministry of Health for improvement of the street vended lunch packet
- 4. To establish simple testing mechanism
- 5. To advocate for the city policy makers
- 6. To Communication for the public (in media)
- 7. To implement at pilot level
- 8. Monitoring and evaluation

Required possible technical assistance: WHO /FAO

Documentation and dissemination of information regarding the program and effectiveness

Country Presentations-2

Action Points - Bangladesh

Parameters	Current Progress	Next Steps				
Urban Planning	 Under Ministry of Local Govt, Mo Food and Industry : mobile court is working Zoning is available and zonal food inspectors are placed 	 Dedicated section for hawkers for non-mobility Check the feasibility of scaling up the concept of 'Orange Cart' 				
Communication/ Advocacy	 No progress in the informal sector BFSA has started working targeting the informal sector in collaboration with the local govn. 	 Beginning advocacy with the policy makers and creation of correct and targeted message through right channel. Continuing communication with the street vendors on maintaining hygiene and safe preparation 				
Generating evidence/ Situational assessment	Evidence on food safety is there but not nutrition	 Make use of evidence and begin data collection on nutritional value Need to gather evidence on local cuisine. So as to recognize the key problem and address it. Data on informal food vendors Consumer behaviour pattern analysis 				
Technical assistance needed		Yes – WHO FAO – revisit the curriculum for risk based inspection WFP – fill the nutrient gap analysis Regional experts Study tour to India (FSSAI)				

Action Points - India

Parameters	Current Progress	Next Steps
Urban Planning	 Cluster Approach (50 or more) – through the street food hub project Clean Fruits and Vegetable market – just launched Organic market through the Jaivik Bharat initiative 	 Scale up the projects and include nutrition parameters Mobile vendors need to be addressed in convergence with the local police Local models may be looked at for best practices
Communication/ Advocacy	 All the content is available vetted by experts Too many messages available 	 Convergence as a major issue Multiple agencies working together Wider dissemination – at communication strategy
Generating evidence/ Situational assessment	Evidence is available	 Make use of evidence and begin scale up Get district level – detailed data from local Linking of data is essential – make a big database Monitoring and evaluation plan should begin
		Already have experts and support

MALAYSIA

1) Meeting with related stakeholders :

- Ministry of Health (MOH)
- Ministry of Agriculture (MOA)
- Ministry of Domestic Trade and Consumerism
- Ministry of Communication and Multimedia (MCMC)
- Local council (Putrajaya)
- FAMA (Federal Agricultural Marketing Authority)
- Hawker association

2)Gathering data and background of the targeted area

- Double burden of malnutrition (based on available data (NHMS))
- Number of stalls in targeted area
- 3) Choose of area for pilot :
 - A) Putrajaya Food Court
 - B) Farmers market
- 4) Target number of food stalls selling meals
- 5) Discussion with all stake holders and vendors
- 6) Consultation and implementation
- 7) Monitoring by Phase
- TECHNICAL ASSISTANCE
 - Study tour and meeting organize by WHO in India and involve all the related stakeholders

What	Reduce intake salt
Why	Cardiovascular, hypertension, cancer
Where	In hospital canteen
who	caterer
how	 Education (message, poster, handout) Action point (no table salt, ginger, garlic,etc) Identifying some common dish that are lower in salt(huushuur)
monitoring	order

PHILIPPINES

Josefina H. Serneo Nutritionist Dietitian IV

What to do?	Reduce the sugar content in beverages
Why?	Decrease Sugar Intake
Who?	Food vendor
Where?	Malabon City – with a supportive Mayor thru the wife who is a Chef.
How?	Using the WHO Guidelines Encourage the provision of reduced sugar version
	 Vendors - Educate and Advocate the preparation of beverages (variety of choice for sugar content 25%, 50% 75%) Provide a logo to the food vendors.
	Customers – create a demand - Orientation be given to the population the good point of have less sjugar - To introduce the promotion of logo
Monitoring	Using sugar meter for monitoring of the content of sugar in a random visit (Refractometer as advised by Ms. Mandy Kwan of Hongkong) Ask the help of Dr. Indira on her experience using the extensive monitoring tool.



กรุงเทพมหานคร BANGKOK METROPOLITAN ADMINISTRATION

Food Sanitation Management

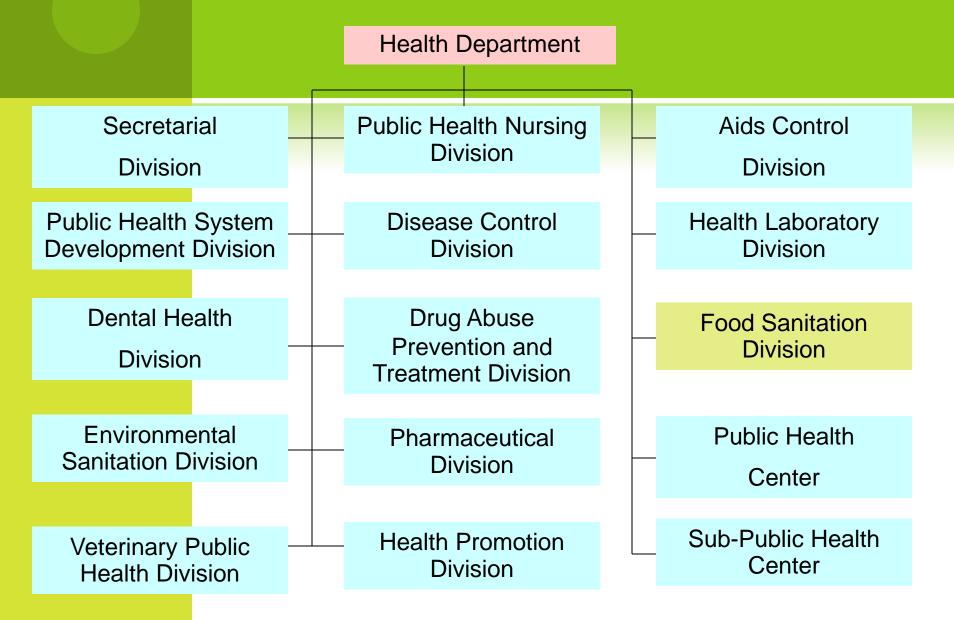
in Food Establishments



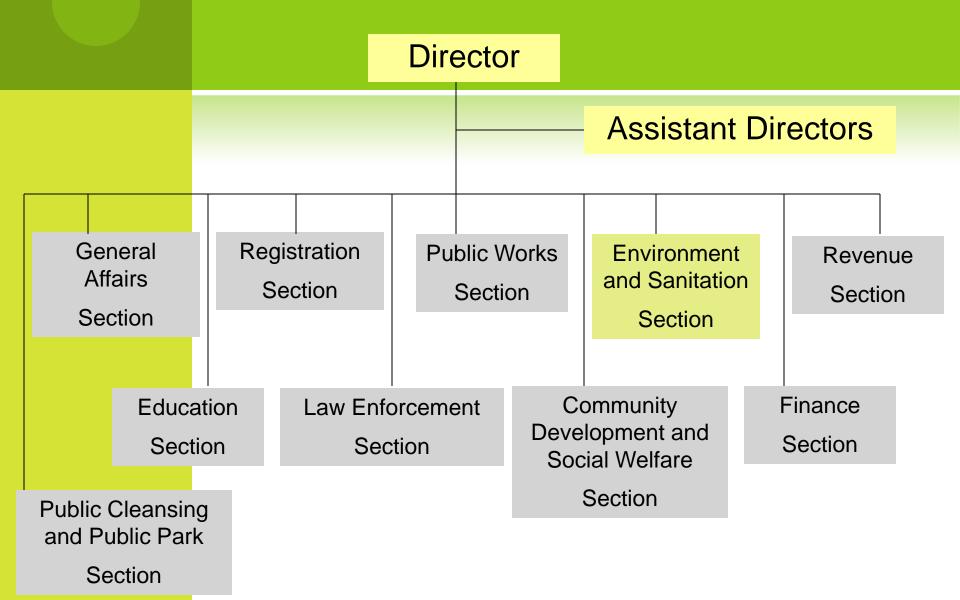
ORGANIZATION CHART OF BANGKOK METROPOLITAN ADMINISTRATION (BMA)

				G	Governor of Bangkok		ok				
	Civil Se	rvic	vice Commission				— Т	The BMA Council			
Permanent Secretary for the BMA											
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C	epartment of Culture ports and Tourism	o [.] P	epartment f Disaster revention and /litigation	City	artment of y Law cement	Departi of Medio Servi	cal	of of I		Depar of Dra ar Sewe	inage nd
	Departmen of Social Developme		Departme Traffic a Transpor	and		District Tices	C	artment of City nning	. (rtment of Budget	

ORGANIZATION CHART OF HEALTH DEPARTMENT



ORGANIZATION CHART OF THE DISTRICT OFFICE





20-YEAR DEVELOPMENT PLAN FOR BANGKOK METROPOLIS (2013-2032)

BANGKOK METROPOLITAN ADMINISTRATION

Together We Build The Vibrant of Asia





<u>The six-dimens</u>ion vision

- 1. Bangkok as a safe city
- 2. Bangkok as a green and convenient city
- 3. Bangkok as a city for all
- 4. Bangkok as a compact city
- 5. Bangkok as a democratic city

OPOLITAN ADMINISTRATION

6. Bangkok as an economic and learning centre





กรุงเทพมหานคร BANGKOK METROPOLITAN ADMINISTRATION

STRATEGY 1: BANGKOK AS A SAFE CITY

Supporting strategy: Free from urban illnesses with availability of safe food





FOOD ESTABLISHMENTS IN BANGKOK

Туре	Number	%
Restaurants	13,249	70
Fresh-food Markets	389	2
Supermarkets	253	1
Convenience Stores	3,656	19
Street Food Stalls	1,490	8
Total	19,037	100

September28, 2018



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2

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4

FOOD SANITATION MANAGEMENT



• Food quality

Food handlers/vendors

• The certification of food safety standards of Bangkok

Existing legislation and standard

- Public Health Act , B.E. 2535(1992)
- Public cleansing and orderliness Act, B.E.2535(1992)
- Food Act, B.E.2522(1979)

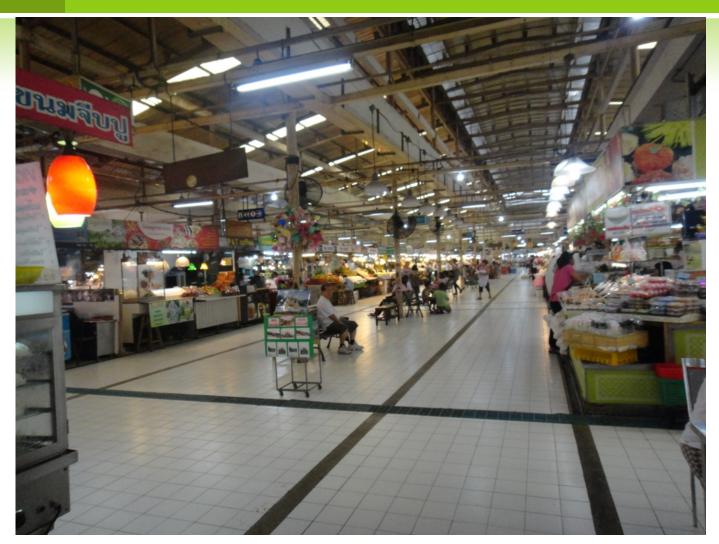
Existing legislation and standard

- Bangkok's ordinance on place where meals are sold and place where foodstuff is stored, B.E.2545 (2002)
- Bangkok's ordinance on the distribution of merchandise in public places or ways, B.E.2545(2002)
- Bangkok's ordinance on fresh-food market, B.E.2546 (2003)

The control of local government concerning fresh-food market Person establishing a fresh-food market Private Ministry, bureau, department, local government, or state organization Do not apply for license but Obtain a Alteration, expansion or must comply with other reduction of fresh-food market license provisions of the Act Must comply with local Conditions to Local official provisions (The BMA's be notified in Ordinance on Market:2003) written forms Hygienic conditions



Fresh-food Market

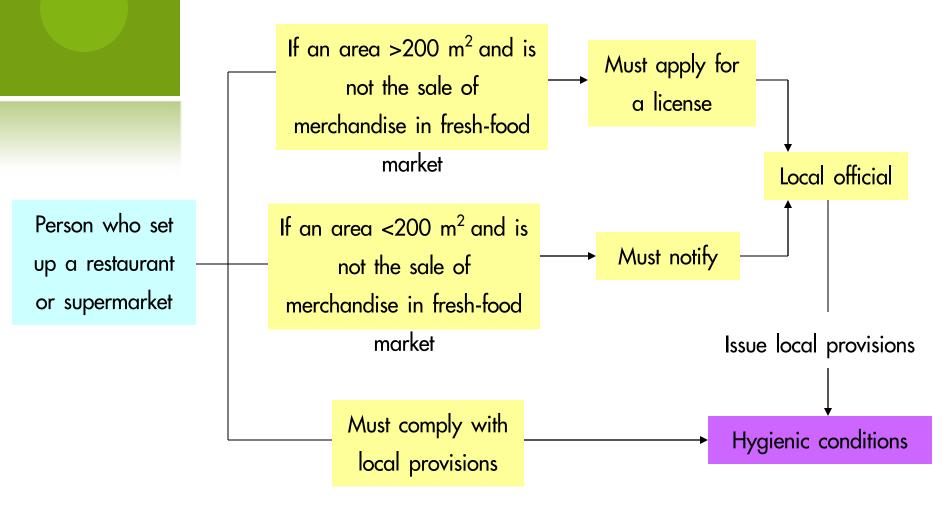




Fresh-food Market



The control of local government concerning restaurant/supermarket





Food Sanitation Management

food quality

Randomly food sampling of hazardous chemical Randomly ready-to-eat foods : sampling for pathogen analysis in laboratory

















3 Consulting

ให้คำปรึกษาด้านความปลอดภัย ในอาหาร





יישטאישיע איפון איפו איפון איפו

α το w/o n o το αποστολικελολουδοί πόσκοτη): Ο στοστάθητα εθλαλιτικα θο σοστηρί 40.00 του Οσσταμίζη για το Ιστοστηρί 40.00 του Οσσταμίζη για το Ιστοστηρί το Οσστά το Οσσταμίζη του Ιστοδοματική πλαθαστό που μηθιλατικό

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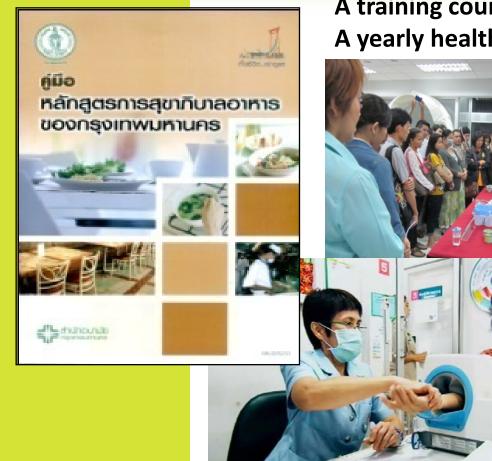






Food Sanitation Management

Food handlers/vendors



A training course on food sanitation A yearly health check





Food Sanitation Management

The certification of food safety standards of Bangkok.





FOOD SAFETY CERTIFICATION FROM BMA



หลักสูตรการสุขาภิบาลอาเ





Street food Vendor Management.

- License for vendors (Renew the License every year)
- Maintain general cleanliness and orderliness of vending stalls and pavement.
- Control of hygiene and sanitation of street food vending stalls.
- Food inspection by using screening test on chemical and biological contamination and food analysis for food borne pathogens in laboratory.
- Law enforcement

* Food Safety Certification from BMA.

- License
- Street food vendor ID card
- Law Enforcement Section, District office

- Direct control by District office
- Sampling audit by Health Department

District office

- Environment and sanitation Section
- Law Enforcement Section
- License
- Good hygiene condition
- Quality of Food
- Training on Food sanitation



Street food Vendor Management.

License of Street vending

Street vending ID card

<image>



The food safety certificates issued by BMA.

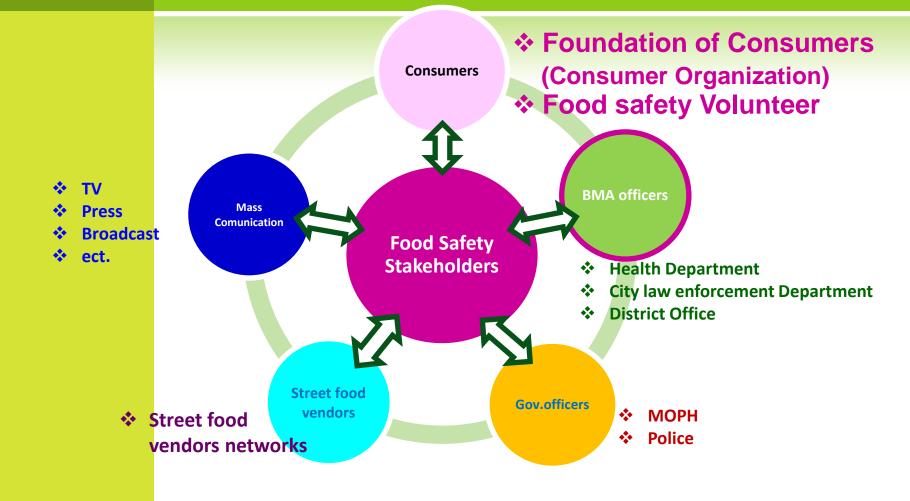


Certificate of Food sanitation training





STAKEHOLDERS (ROLES & RESPONSIBILITIES FOR MONITORING)





Street food Vendor Management.







Street food Vendor Management.





Street food in Bangkok



Superinter State State States



Street food in Chinatown (Yaowarat Road)











Street food in Chinatown (Yaowarat Road)













Thank you