

SUMMARY REPORT

ILSI SEA Region Malaysia Country Committee 9th Scientific Seminar on Drivers of Consumer Food Choices 15 November 2016, Kuala Lumpur, Malaysia

The question that is often asked is: “Why do people eat the foods they do?” People eat to satisfy their hunger. They generally do not consider what foods they need to consume to meet physiological and nutritional needs. Instead, there is a complex mixture of factors driving consumer food choice, including economic, physical, social and psychological determinants.

Understanding how consumers make food choices, and why they like what they choose to eat is of central importance to nutritionists, other healthcare professionals, researchers, policy makers and the food industry. Promoting healthy diets and increased physical activity have been recognised as key to preventing diet-related chronic diseases. A better understanding of the main determinants of food choices will enable us to develop policies and interventions to promote healthier eating patterns. In addition, in depth understanding on drivers of food choices will be essential in any initiative aimed at developing successful products and services by the private sector, including the food industry.

The high prevalence of non-communicable diseases (NCDs) and their risk factors in this country has been attributed to inappropriate food choices and a sedentary lifestyle. The way forward to arrest the further increase of these diseases among Malaysians is to promote healthy diet through informed food choices. First of its kind in the country, all stakeholders involved in promoting healthier diets were invited to attend the seminar to further understand the major determinants of food choices among Malaysians and explore collaborative approaches to interventions.

This seminar, organized by ILSI SEA Region Malaysia Country Committee and co-organized by the Nutrition Society of Malaysia (NSM), was focused on gaining insight into studies on consumer food choices in Malaysia. Papers that were presented were related to study on consumer food choices. The focus was also on issues and challenges to review programmes and food regulations in promoting healthier food choices. The seminar provided a platform for understanding drivers and discussing ways to improve consumer food choices through a multi-stakeholder approach as well as to identify research gaps.

The seminar was attended by 139 participants from various organisations including research institutions, academia, government agencies and several food companies. Participants included nutritionists, dietitians, food scientists and technologists, among others.

Drivers of Food Choice- Findings from Malaysian Food Barometer

To set the stage for the Seminar, the first presentation was on **Drivers of Food Choice- Findings from Malaysian Food Barometer** by Dr Elise Line Mognard from Taylor’s University of Malaysia. As a result of rapid urbanization and modernization, a sizable new middle class in Malaysia has emerged and the traditional ways of life and eating habits of the different ethnic communities are changing with the times. For many years, nutritional surveys have captured the transformation of food consumption habits but to date, a comprehensive survey focused on the socio-cultural determinants of food habits and eating decisions at the national level has not been attempted.

Based on this understanding, the Malaysian Food Barometer was conceptualised to fill this gap and to investigate the eating practices and cultural representations of food and eating in a multicultural context. Its aim is to describe and understand the food habits and transformation of the many different dimensions of Malaysian communities including practices, social norms, social representations and beliefs. Over 2,000 people across the northern, central, southern and northern regions of Peninsular Malaysia and Sabah and Sarawak participated in the 2013 survey.

The findings showed the correlation between the food lifestyle of individuals, social characteristics and body size status, or obesity.

Based on the findings of this national representative survey this presentation focused more precisely on the diverse rationalities driving food choices in the Malaysian context.

The Role of the Senses in Food Choice and Energy Intake

Dr Ciaran Forde, from Singapore Institute for Clinical Sciences, spoke on **The Role of the Senses in Food Choice and Energy Intake**. From infancy to adulthood and old age, foods sensory signals played an important role in shaping our eating behaviors and the dietary patterns that influence health and well-being. Traditionally, sensory evaluation has quantified sensation and related this to food likes and dislikes. Beyond food preferences, sensory perception informed intake and dietary learning and with repeated consumption humans and other animals learn to link the structural and chemical properties of a food to the underlying nutritional value of its consumption. Through this, the taste, smell and texture of foods played an important functional role in controlling meal size and the development of satiety, and can be adapted to support calorie reduction or promote energy and nutrient intakes among vulnerable populations. Food texture moderated the rate of eating and oral-metering of calorie ingestion through its influence on microstructural patterns of eating. Collectively, these processes informed portion selection and expectations of fullness, and were important in overall energy intake leading to either negative or positive energy balance.

A deeper understanding of how food and beverage sensory properties influenced food choice, portion selection and ingestion drove the development of successful behavioral and dietary strategies to manage chronic conditions such as obesity and type-2 diabetes. Dr Forde highlighted that their studies have explored how food texture moderates eating rate and total energy within a meal, and demonstrated the efficacy of using sensory approaches to control meal size.

Another approach to reducing energy intake was to use sensory cues to mask covert manipulations to dietary energy density. Few studies have explored human sensitivity to increases or decreases in calorie content in the same food, and the impact this had on feelings of re-bounce hunger and energy compensation at the next meal. Two studies were conducted to explore the sensitivity to calorie reductions, where foods sensory properties were used to conceal underlying differences in energy content. The findings highlighted an imprecise control of energy intake with negligible adjustments for changes in energy intake. Covert reductions in total energy content in sensory matched foods that maintain a high sensory appeal creates the opportunity to use sensory properties to guide healthier choices and provide satisfying product experiences for fewer calories. Beyond palatability, foods sensory properties play a functional role in guiding calorie selection, informing eating rate and enhancing the oral metering of energy intakes. The implications of these perceptual and behavioural factors on nutritional well-being and health was discussed with examples from the current research by the Sensory Ingestive Behaviour group at the Clinical Nutrition Research Centre.

Food Labelling and Health Claims- Do They Make a Difference in Consumer Food Choices?

Ms Fatimah Sulong from the Negeri Sembilan State Health Department, Ministry of Health Malaysia talked about **Food Labelling and Health Claims- Do They Make a Difference in Consumer Food Choices?** Consumers are confronted with an increasing variety of foods, especially processed and packaged products. Consequently, it became more and more difficult to make healthy and informed choices while rushing through the supermarket aisles. Nutrition information on food labels played an important role to assist consumers in adopting healthy dietary practices by making wise food choices at the point of purchase. Promotion of nutrition labelling for all pre-packaged foods was also a proposed policy measure highlighted in the NCD Action Plan 2013 - 2020 which was adopted by the 66th WHA in May 2013 for promoting healthy diet and preventing NCDs.

Recognizing this importance, Malaysia has made nutritional labelling mandatory for selected food since 2003. Nutrition label provides information on the amount of energy and other nutrients in the product that a consumer is contemplating to purchase. Such information serves to remind the consumer to think of nutritional quality of a food in addition to other information such as ingredients, storage conditions, instructions for use and expiry date. Nutrition and health claims provided additional information to consumers on the functions of various nutrients and food components.

There were no major changes since the regulations have been enforced in 2005. However, efforts have been made to improve its usefulness including addition of nutrient reference value (NRV) column and additional permitted claims. It was important to determine how the nutrition information on food label can influence consumers' food choices. A better understanding of the main factors influencing food choices will then enable stakeholders to develop policies and interventions to promote healthier eating practices.

The available research and information in this area will guide decisions at all stages of the policy process towards evidence-based policymaking. The policy maker can use the information to continually improve program performance and expand innovative programs.

Ms Fatimah highlighted some of the published research of Malaysian consumers (including the National Health and Morbidity Surveys) in using nutrition information on food labels. She also concluded that more studies and research on this area should be undertaken such as focusing on the portion of the nutrition information on food label which consumers look at most and whether they find it difficult to understand.

Innovative ways to communicate to consumers

Ms Cher Siew Wei representing the Federation of Malaysian Manufacturers presented on **Innovative ways to communicate to consumers**. She shared some ideas on how the industry communicate in the new digital age and how they have engaged the consumers through various methods and channels through the digital media and social media.

Role of advertising in driving food choices

Mr Khoo Kar Khoon from Malaysia Advertisers Association spoke on **the role of advertising in driving food choices**. The role of advertising was indisputably an essential element of marketing since before 11th century BC with the initial intention to inform and influence the public on the adoption of goods or services by the trade, wishing to gain the trust and support of the consumers that would subsequently lead to sales.

It is estimated that the global advertising spending will reach US\$2.1 trillion in 2018. This was clear evidence that businesses acknowledge the effectiveness and the pivotal role advertising has on their business. With the growing options of advertising channels, which includes the new digital technology and devices, consumers can easily be targeted and engaged in the most effective and efficient manner, anytime and anywhere. Geotargeting, segmentalisation and personalized communication are some of the new approaches that provide connectivity with the consumer.

With the fast-changing media communication landscape and consumer media consumption habits, the roles of advertising has also evolved and expanded to cope with the complexities of the digital revolution. In recent years, the function of advertising has evolved from merely to inform or educate consumers on the functional benefit of the product, taste, availability, price to a stronger personal engagement through contemporary humour, creativity, emotional affinity, hoping to establish a stronger brand loyalty with the consumers.

With the growing pressure and concern on health-related diseases resulting from bad eating diet and habits, the food industry has started to explore more healthy food options in both their

products and advertising contents. This was a good initiative and great collaborative role played by the advertisers to help in combating the issues at hand, particularly child obesity. Mr Khoo shared with the participants a few good and impactful examples that focused on communicating health messages in the advertisement. He concluded that with the proven effectiveness and influence of advertising, consumers should continue to be informed, educated and engaged on good eating diet and habits through all the relevant channels while ensuring more transparency and responsible advertising is practiced by the industry.

How to use risk communication in affecting consumers' food choices

Dr Zhong Kai from China National Centre for Food Safety Risk Assessment spoke on **How to use risk communication in affecting consumers' food choices**. Food choice was a complicated and challenging issue for both the industry and the regulators. It was a decision based on knowledge, experience, habits, tradition, culture, socioeconomics and many other determinants. Communication could play an important role to influence the consumers, but the ultimate goal of a successful communication is to help them make informed decision which will lead to healthy diets.

IT technology has dramatically changed the communication environment, for example, how consumers produce and consume information, but nothing can compare to the impact of social media. It brings about both challenges and opportunities for the communicators, and Dr Zhong Kai highlighted some good examples, challenges and interesting ideas of communication through social media.

Contribution of various stakeholders towards promoting healthy food choices- government, professional body, and food industry

The next presentation was on **contribution of Ministry of Health Malaysia towards promoting healthier food choices** by Ms Zalma Abd Razak from the Nutrition Division, Ministry of Health (MOH) Malaysia. She started the presentation with the prevalence of overweight and obesity amongst adults and adolescents in Malaysia based on results of the National Health and Morbidity Surveys conducted by the MOH Malaysia. The prevalence of obesity amongst adults has increased dramatically from 4.4% in 1996 to 14.0% in 2006 and 17.7% in 2015. Amongst adolescents, the prevalence of overweight and obesity was 31.8% and 24.4% for those aged 7 to 12 years and 13 to 17 years, respectively.

The studies also showed that generally Malaysians do not practice healthy eating especially in terms of the consumption of fruits and vegetables, and fat intake. Malaysian Adults Nutrition Survey 2014 showed that only 10.3% adults and 6.3% adolescents consume the recommended amount of vegetables daily. Similarly, only 15.0% adults and 48.3% adolescents consume the recommended amount of fruits daily. Meanwhile, 45.6% adults exceed the daily recommendation of fat. Therefore various strategies had been implemented by MOH Malaysia to promote and inculcate healthy eating habits amongst Malaysians, including promoting healthier food choices. This has been done through various settings such as health facilities, schools, child care centers and supermarkets; and through various initiatives such as Healthy Cafeteria, Healthy Catering and Healthy Community Kitchen.

MOH has also conducted frequent dialogues with food industries to encourage production of healthier food products. Healthier food choices are also promoted through both conventional and social media. Ms Zalma highlighted that all these activities will continue to be implemented as outlined in the National Plan of Action for Nutrition (NPAN) of Malaysia III, 2016-2025, with the objective to enhance nutritional status of the people and reduce diet-related non communicable diseases in Malaysia.

Prof Dr Norimah A Karim from NSM followed up with a presentation highlighting **contribution of Nutrition Society of Malaysia towards promoting healthy food choices**. She started off by stating that the primary objective of the NSM is to contribute towards promoting better nutrition

for all Malaysians and that the Society has carried out various activities and they are in line with and in support of the National Nutrition Policy (2005) and the NPAN of Malaysia (2006-2015).

Prof Dr Norimah highlighted that NSM had worked relentlessly towards ensuring that Malaysians have access to appropriate nutrition information for the past 31 years, in support of the MOH's efforts in combating diet-related diseases. In the area of promotion of community nutrition specifically promoting healthy lifestyle and healthy food choices, NSM regularly carries out community nutrition outreach programmes for the public. The largest of such programmes has been the nationwide Nutrition Month Malaysia (NMM), initiated in 2002. It is a collaborative programme between three professional bodies, namely NSM, the Malaysian Dietitian's Association (MDA) and the Malaysian Association for the Study of Obesity (MASO) which aims to increase awareness of Malaysians towards importance of healthy eating and active living through a variety of communication activities and approaches, for example public fairs/carnivals and publication of annual signature publication and a website (<http://nutritionmonthmalaysia.org.my>).

In line with the focus of this Seminar, Prof Dr Norimah emphasised that NSM has also carried out a number of intervention programmes for specific target groups. Particular attention has been given to infants and children so that healthy eating habits can be inculcated from young. Current programmes include Healthy Kids Programme, MyNutriBaby and Positive Parenting Programme. Focus has also being given to mothers and woman of reproductive age. The MI-Care programme are current programmes that focus on care of the pregnant and lactating women as well as breastfeeding for the newborn.

The Society has also published numerous educational resources to empower the public with appropriate, unbiased information on healthy eating and food choices. These include publication of leaflets, booklets, articles in the newspaper as well as a series of cookbook namely Nutritionists' Choice Cookbook - Vol. 1 and Volume 2 and the Junior Chef Cookbook Vol. 1 which is intended to promote healthy eating among primary school children. All of NSM's publications are made available for free download at the Society's website <http://nutriweb.org.my>.

NSM will continue to implement community outreach and intervention programmes to complement the government's vision of a healthier nation, and healthier Malaysians. NSM is looking forward to continued collaborations and partnership with all stakeholders, including various government agencies and the food industry, in achieving our mission. Prof Dr Norimah further highlighted that NSM believes in strategic partnerships, in a transparent professional manner, for the ultimate goal of benefitting the people.

Next, Ms Sharidah Yusoff, represented the Federation of Malaysian Manufacturers (FMM) in sharing views from the food industry in promoting healthy food choices. FMM comprises of manufacturers and affiliates of various Food and Beverage companies and has been set up to promote cooperation to drive health and nutrition related matters in Malaysia. In light of the emerging obesity pandemic, front-of-pack (FOP) calorie labels may be an important tool to assist consumers in making informed healthier food choices. FOP labelling as well as nutritional information panel on the product packaging, if applied correctly and adequately used, understood and trusted by the consumer, can assist consumers in taking into account the nutritional content of the food product in their purchasing decisions. The amount of calories present in individual foods is a crucial piece of information needed by the consumers in order to help them make informed dietary choices.

In order to tackle the emerging problem of obesity and NCDs, advertising and marketing are powerful sectors that should be used to influence consumer behaviour. Voluntary efforts by the industry in responsible marketing to children should complement the existing and different approaches being taken by other stakeholders. This voluntary approach can potentially act quickly and effectively to tackle rising overweight and obesity rates.

There is also growing interest among the manufacturers, in the composition of manufacture food and the role that reformulation can play to make diets healthier. Industry has already taken important steps. Industry is encouraged to reformulate their products, for example to adjust level of fat, sugar and sodium. This reformulation effort taken by the industry includes wide variety of foods, such as breakfast cereals, beverages, biscuits, confectionery, dairy products, sauces, soups, snacks and sugary foods.

In conclusion, Ms Sharidah emphasised that various efforts could be taken by the industry as public-private-partnership in the country to help reducing obesity and NCDs in Malaysia. Industry has to play a big role in ensuring that these efforts are continuously being taken in Malaysia.

Roundtable Discussion

The Seminar ended with a roundtable discussion to provide an opportunity to speakers and participants to further deliberate on issues and challenges in improving consumer food choices through a multi-stake holder approach. The session was chaired by Dr Tee E Siong, and panel members include Ms Zalma, Prof Dr Norimah, and Ms Sharidah who represented viewpoints from the respective stakeholders, namely government, professional bodies, and the food industry, on how they can work together to overcome issues and challenges in improving consumer food choices.

Panel members and participants pointed out various concerns regarding drivers of consumer food choices. One important issue discussed was the cost effectiveness and evaluation of the promotions towards healthier food choices. Ms Zalma emphasised the difficulties in measuring the outcome from the intervention towards promoting healthier food choices. However, from her observation, the awareness among the community to choose healthier food choices is rising. She highlighted that more have to be done to promote healthier food choices in the community and MOH would like to focus on a few key messages to promote healthier food choice in order to reach the masses in future.

Ms Sharidah explained that FMM regularly conducts various technical meetings on regulations of nutrition labelling. In 2006, MOH had given the guidelines on nutrition claim such as low-fat, low-sodium food products. She further emphasised that it depends on the consumer's preferences/ awareness when deciding whether to make the healthier food choice. FMM and its members have been actively finding and implementing new and innovative ways to market healthier food choices to the consumer based on the current needs. Ms Sharidah identified that one of the obstacles was the regulation of nutrition and health claims of food products.

Prof Dr Norimah stated that NSM has many initiatives to promote the importance of good nutrition knowledge in the community. She shared that there are still major gaps to translate the nutrition knowledge, which may affect their behaviour in choosing healthier food options. She emphasised that a lot of work needs to be done to increase knowledge and behavioural changes towards promoting of healthier food choices.

Dr Tee asked the participants on the data of main determinants of food choices in Malaysia. Dr Mognard stated various factors play a role in determinants on drivers of consumer food choices such as senses. Emeritus Prof Geok Lin Khor, Universiti Putra Malaysia, suggested targeting two levels on drivers of consumer food choices such as global macro level and micro level (household, and community). With reference to the Food Balance Sheets, she stated there is a significant increase of total sugar consumption per capita, based on food availability among the community. Prof Khor shared that there is a lack of expertise on drivers of consumer food choices at the micro level in Malaysia. She suggested for NSM, FMM and MOH to work together and establish a task group to look into scientific writings, regulatory affairs, research and development. She further emphasised the need to focus on science when promoting healthy eating and physical activity in the community. Dr Tee also highlighted that nutritionists need to work with professionals in other disciplines such as social & behavioural scientist, food scientists, and psychologists to find out what are the drivers of consumer food choices.

The second issue discussed was the challenges in improving consumer food choices through a multi-stakeholder approach. Ms Zalma stated that the public's perception towards healthy eating habits is their biggest challenge in improving consumer food choices. Insufficient resources as well as collaboration with other ministries in promoting healthy food choices are other challenges faced by MOH.

Prof Norimah explained that the nutrition education programme conducted by NSM could not reach all segments of the population in Malaysia. She suggested collaborating with advertising agency, behavioural scientists, and others to make the key messages more interesting. Participants agreed that there should be a balance between the content of the messages and the attractiveness of how it is delivered. Dr Tee shared that the public might think of healthy eating as not being a vital role in reducing the risk of NCDs and their concern about obesity might be about aesthetic issues instead of serious health problems.

Participants discussed on which platform the government, professional bodies, and the food industry could work together to improve consumer food choices. Ms Zalma suggested the Technical Working Group for Nutrition Promotion as a platform for multi-stakeholders to work together through one common activity to achieve the same shared goals. However, there should be transparency and clarity on regulation when it comes to working together with multi-stakeholders and they are open for further dialogue and discussion. Ms Sharidah added that FMM has a Technical Working Group for Health and Nutrition. However, they do not have the active members in the technical working group which makes it difficult to collaborate with other agencies.

There was a general agreement on the need for multi-stakeholder approach towards promoting healthier food options and improving consumer food choices. This should include government ministries and agencies, the food industry, professional bodies, and small and medium enterprises. It should also span to include the participation of individual professionals and experts such as behavioural scientists, psychologists, and food technologists.

Short Communications

Local researchers were invited to present on their current work related to topic of the Seminar. The topics of the short communications were:

1. Knowledge and practices towards food labels among university students in Malaysia
Dr Roseline Yap Wai Kuan, Taylor's University Malaysia
2. Rethinking the nutritional labels design to make better informed food choices
Ms Poulina Koh Chai Lin, Universiti Sains Malaysia
3. Cross-cultural comparison on equally trained sensory panels in food profiling
Ms Teo Pey Sze, Taylor's University Malaysia
4. Texture contrast and consumer preferences of peanut butter
Ms Teo Pey Huey, Wageningen University, The Netherlands
5. A qualitative study on consumer food motivations behind the purchase of functional food
Ms Carolyn Loong, UCSI University Kuala Lumpur
6. Food choices and diet quality at school food environment: A qualitative insight from the perspective of adolescents and canteen operators
Ms Suhaila Abd Ghaffar, Universiti Kebangsaan Malaysia
7. The effectiveness of the weight management programme among community KOSPEN in Kampung Meranek, Samarahan
Ms Constance Geoffery, Klinik Kesihatan Kota Samarahan, Sarawak

8. Nutritional knowledge in relation to Body Mass Index (BMI) among participants of healthy eating promotion at supermarket in Samarahan division
Ms Syahrizan Anggas, Pejabat Kesihatan Bahagian Samarahan Sarawak
9. Associations between dietary cost and diet quality of adults in three districts of Selangor, Malaysia
Ms Ibnteesam Pondor, Universiti Putra Malaysia