





FOOD-ENVIRONMENT POLICY INDEX (FOOD-EPI):

Benchmarking Current Policies and Determining Priorities for Future Policies for the Malaysian Government 2016-2017









FOOD-ENVIRONMENT POLICY INDEX (FOOD-EPI):

Benchmarking Current Policies and Determining Priorities for Future Policies for the Malaysian Government 2016-2017





Food-Environment Policy Index (Food-EPI): Benchmarking Current Policies and Determining Priorities for Future Policies for the Malaysian Government 2016-2017

ISBN 978-983-42647-4-1

Published by Universiti Kebangsaan Malaysia.

Copyright © Universiti Kebangsaan Malaysia 2018

All right reserved. Dissemination of this publication for educational or other non-commercial purposes are authorised without any prior written permission from the copyright holder, provided the source is fully acknowledged. No part of this publication may be reproduced in any form or by any means, electronic or mechanical including photocopy for resale or other commercial purpose, without written consent from the copyright holder.

Soft copies of this Report are available on request (Project Leader).

Project Leader: Prof. Dr. Tilakavati Karupaiah

Email:

tilly_karu@yahoo.co.uk; tilly@ukm.edu.my; tilakavati.karupaiah@taylors.edu.my

Visiting Professor Faculty of Health Sciences Universiti Kebangsaan Malaysia Jalan Raja Muda Abdul Aziz 50300 Kuala Lumpur School of Biosciences Faculty of Health & Medical Sciences Taylor's University (Lakeside Campus) No.1, Jalan Taylor's 47500 Subang Jaya Selangor Darul Ehsan, Malaysia

Funding:

International Development Research Centre (IDRC), Canada (Grant No. 108176-001).

Printed by:

UKM CETAK Sdn. Bhd., Bangunan Penerbit UKM, Universiti Kebangsaan Malaysia, 43650 Bangi, Selangor.

Editorial Committee:

Ng See Hoe and Ruth Merry Paranjothi Yanok





TABLE OF CONTENTS

	рр
List of Tables	V
List of Figures	V
Research Team	vi
Food-EPI Expert Rating (FEER) Panel	vii
Government Stakeholders	viii
Acknowledgements	xi
Executive Summary	xii
Glossary	xvi
CHAPTER I INTRODUCTION	
1.0 Background: Malaysia	2
1.1 The Logic Behind Modifying	
the Food Environment	2
1.2 INFORMAS Public Sector Module:	
Government Food-EPI	3
CHAPTER II METHODOLOGY	
2.0 Food-EPI Procedures	6
2.1 Project Approval	6
2.2 Project Process	6
2.2.1 Evidence Compilation and	
Preparation	6
2.2.2 Assessment of Performance	
by FEER Panel	10
2.2.3 Advocacy	14

CHAPTER III RESULTS & DISCUSSION p		
3.0 Benchmarking Implementation of Food Environment Policies: Scorecard for Government	18	
3.1 Prominent Indicators under 'Policy' Component	20	
3.2 Prominent Indicators		
under 'Infrastructure Support' Component	24	
3.3 Feedback on FEER Workshop	27	
3.4 Policy Actions for Prioritisation	29	
3.4.1 Prioritisation by FEER Panel	32	
3.5 Policy component: Recommendations for Government	35	
3.5.1 Food Promotion	35	
3.5.2 Food Labelling	36	
3.5.3 Food Composition	37	
3.5.4 Food Retail	38	
3.5.5 Food Prices	39	
3.6 Infrastructure Support Component: Recommendations for Government	40	
3.6.1 Funding and Resources	40	
3.6.2 Monitoring and Intelligence	41	
3.6.3 Transparency in Governance	41	





CHAPTER IV CONCLUSION	рр
4.0 Policy Package for Government	44
Appendix I : Approval Letters	46
Appendix II : List of Government Stakeholders Engaged	49
Appendix III : Statements of Proposed Policy Actions	51
References	57



рр

v

FOOD-EPI MALAYSIA

LIST OF TABLES

1.	Description for prioritisation	13
2.	Prominent indicator as per 'Policy' component	23
3.	Prominent indicators as per 'Infrastructure Support'	

 Comments about the FEER Workshop from participants (n=30)

component

LIST OF FIGURES

рр

26

28

1.	Mapping of top 15 prioritised policy actions to the Malaysian government	xv
2.	Overall framework of Food-EPI in Malaysia	4
3.	Process flow of Food-EPI	7
4.	Engagement mapping of government stakeholders	9
5.	Flowchart of FEER Workshop	11
6.	Timeline of Food-EPI process and major outcomes	15
7.	Extent of implementation of food environment policies and infrastructure support by the Malaysian government	19
8.	Participant feedbacks of FEER Workshop (n=30)	27
9.	Algorithm to construct the list of proposed policy actions for prioritisation process	30
10.	Consensus for proposed policy actions (Second vote)	31
11.	Prioritisation of proposed policy actions as per weighted and unweighted scores	33
12.	Scatter plot of proposed actions as per importance and achievability criteria	34



vi FOOD-EPI MALAYSIA

RESEARCH TEAM

Members		
Prof. Dr. Tilakavati Karupaiah	Project Leader, Universiti Kebangsaan Malaysia & Taylor's University	
Mr. Ng See Hoe	Research Fellow, University of Wollongong, Australia	
INFORMAS Contributors		
Prof. Dr. Boyd Swinburn	University of Auckland, New Zealand	
Associate Professor Dr. Bridget Kelly	University of Wollongong, Australia	
Dr. Stefanie Vandevijvere	University of Auckland, New Zealand	
Advisory Members		
Emeritus Prof. Dr. Mohd Noor Ismail	Taylor's University, Malaysia	
Prof. Dr. Heather Yeatman	University of Wollongong, Australia	





FOOD-EPI EXPERT RATING (FEER) PANEL

FEER panel members were the pillars to the benchmarking process of applying the Food-Environment Policy Index (Food-EPI) to the Malaysian context. The following FEER members are appreciated for their valuable inputs and commitments throughout the stages of rating, prioritisation of proposed policy actions and improving the final document.

Institution	Name
Academy of Medicine of Malaysia (AMM)	Prof. Dr. Rosmawati Mohamed
Consumers Association of Penang (CAP)	Ms. Narinder Kaur
Diabetes Malaysia	Ms. Poh Kai Ling
Heart Foundation of Malaysia (HFM)	Dr. Robin Sambhi
Institute for Democracy and Economic Affairs (IDEAS)	Mr. Azrul Mohd Khalib
Malaysian Alliance of Salt Reduction Initiatives (MASRI)	Dato' Dr. Zainal Ariffin Omar
Malaysian Association for the Study of Obesity (MASO)	Prof. Dr. Norimah A. Karim
Malaysian Dietitians' Association	Dr. Zulfitri Azuan Mat Daud
Malaysian Paediatric Association (MPA)	Assoc Prof. Dr. Muhammad Yazid B. Jalaludin
Malaysian Society of Hypertension (MSH)	Prof. Datin Dr. Chia Yook Chin
National Cancer Society of Malaysia (NCSM)	Dr. Saunthari Somasundaram
National Kidney Foundation of Malaysia (NKF)	Dr. Sivashanker V. Kanagasabapathy
Nutrition Society of Malaysia (NSM)	Assoc Prof. Dr. Mohd Nasir Mohd Taib
Public Health Research and Education Association of Malaysia (PHREAM) - Affiliate of Federation of Malaysian Consumers Associations (FOMCA)	Mr. Sharvin A/L A. Subramaniam
The Malaysian Public Health Physicians Association (PPPKAM)	Prof. Capt. Dr. Mohamed Rusli B. Abdullah
International Islamic University Malaysia (IIUM)	Assoc Prof. Dr. Nik Mazlan B. Mamat
International Islamic University Malaysia (IIUM)	Assoc Prof. Dr. Wan Azdie B. Mohd. Abu Bakar
International Medical University (IMU)	Assoc Prof. Datin Dr. Safiah Bt. Md. Yusof
Senior Dietitian, Hospital Selayang, MOH	Madam L. Mageswary A/P Lapchmanan
Taylor's University	Dr. Roseline Yap Wai Kuan
UCSI University	Prof. Dr. Mirnalini Kandiah
Universiti Kebangsaan Malaysia (UKM)	Prof. Dr. Wickneswari Ratnam
Universiti Kebangsaan Malaysia (UKM)	Dr. Norshamliza Chamhuri
Universiti Sains Malaysia (USM)	Assoc Prof. Dr. Foo Leng Huat
Universiti Sains Malaysia (USM)	Prof. Dr. Andrew Tan Khee Guan
Universiti Sultan Zainal Abidin (UniSZA)	Dr. Sharifah Wajihah Wafa

Note: Arrangement of the name list above is in alphabetical order of institutions.





GOVERNMENT STAKEHOLDERS

The project received extensive support from the participating Malaysian government stakeholders from various Ministries/ Departments/ Divisions. Contributors are listed below:

*Ministry of Health (MOH) (Former Deputy Director General of Health -Public Health) Datuk Dr. Lokman Hakim B. Sulaiman

Nutrition Division, MOH

Madam Zalma Bt. Abdul Razak Ms. Rusidah Selamat Madam Zaiton Bt. Daud Mr. Nazli Suhardi B. Ibrahim Madam Khairul Zarina Mohd Yusop Madam Fatimah Zurina Mohamad Ms. Teh Wai Siew Madam Ainan Nasrina Ismail Madam Siti Adibah Bt. Ab Halim Mr. Mohd Hasyami Saihun Madam Norfahimah Mohd Norddin Ms. Nur Amalina Muhamad Ms. Shirly Chai Sook Yi Madam Umadevi Nadarajah Mr. Muhammad Azwan Kamaruddin Mr. Leong Han Yin Madam Noor Faezah Abdul Jalil Mr. Mohd Al-Saufreen Akhiruddin Madam Nuurdiana Bt. Mohd Rafien Madam Siti Noor Syarma Mohd Sharif Madam Fadwa Bt. Ali Madam Fitri Nurdiana Bt. Mahmud

Disease Control Division, MOH

Dr. Chong Chee Kheong Dr. Feisul Idzwan Mustapha Dr. Noor Raihan Bt. Khamal Dr. Rosnah Bt. Ramly Datin Dr. Sarina Shuib Dr. Azriman B. Roslan Dr. Norzaleha Dr Sofwan Albar Madam Viola Michael Mr. Azhar Yusuf Mr. Ooi Poh Keong Health Education Division, MOH Madam Zanariah Bt. Zaini Mr. Mohd. Razif B. Zakaria Madam Inin Roslyza Bt. Rosli

Family Health Development Division, MOH Madam Nurul Huda Bt. Ibrahim

Food Safety & Quality Division, MOH Dr. Chin Cheow Keat Madam Norliza Bt. Zainal Abidin Ms. Noor Ul-Aziha Muhammad

Malaysian Health Promotion Board, MOH

Dr. Manimaran A/L Krishnan Kaundan Madam Arfah Mahani Bt. Hj. Amran Miss Noraini Bt. Mustafa Madam Nurul Nadia Bt. Hamdan

National Institute of Health, MOH Dr. S. Asmaliza Ismail

Madam Roslinda Abu Sapian

Institute for Health Systems Research, MOH Dr. Zalilah Abdullah

Institute for Public Health, MOH Dr Hj. Tahir B. Aris

Madam Rashidah Bt. Ambak Madam Ruhaya Salleh Madam Lalitha Palaniveloo Madam Syafinaz Bt. Mohd. Sallehuddin

Account Division, MOH Madam Norleen Bt. Ibrahim Mr. Hanafi B. Husaini

Policy and International Relations Division, MOH





*Prime Minister's Department (PMD) Economic Planning Unit Madam Noor Lunar Bt. Md. Salleh

PERMATA Division, PMD Mr. Mohd Zulhasmi B. Jamaludin Madam Azmaini Mr. Ahmad Faiq B. Ramli

Department of National Unity & Integration Madam Suraya Bt. Wen

*Ministry of Education (MOE) School Management Division, MOE Mr. Nadzman B. Radzaly Tuan Haji Zafrullah B. Shamsuddin Tuan Haji Bahrin Masduki Madam Noor Akmar Bt. Jais

Fully Residential & Excellent Schools Management Division, MOE Mr. Noor Azizan B. Abd. Hadi Madam Noor Arina Bt. Mohamed Bakri

*Ministry of International Trade & Industry Sectoral Policy Division Mr. Abdul Aziz B. Mohamad Sharkawi

*Ministry of Women, Family & Community Development (MWFCD) Department of Social Welfare, JKM, MWFCD Madam Ida Suzita Ms. Nor Aisah Bt. Abdul Raoof Ms. Noorhafiza Bt. Ahmad Mr. Mohd Azan B. Hussin Mr. Mohd Hamizan B. Nasir

*Ministry of Rural & Regional Development Community Development Department (KEMAS) Madam Aainaa Mastura Bt. Abu Bakar *Ministry of Urban Well-being, House & Local Government (MuwHLG) Dr. Hasnah Bt. Bibon Mr. Mohamad Ridzuan B. Mohamad Salleh Mr. Abd. Jamal B. Abd. Razak

*Ministry of Home Affairs (KDN) Film Censorship Board, KDN Mr. Mustafa B. Abd Hamid

*Ministry of Domestic Trade,
Co-operatives & Consumerism (MDTCC)
Policy & Strategic Planning Division, MDTCC
En. Muhammad Salimi B. Sajari
Pn. Sukinurlin Bt. Yusuf

Franchise Division, MDTCC Mr. Afkhar Razi B. Mohamed

Domestic Trade Division, MDTCC En. Zalirizal B. Abdul Rahman Madam Farahana Bt. Hussain

National Price Council, MDTCC Madam Eziatul Nurin Bt. Ahmad Sapawi Mr. Muhammad Nurshazni B. Mohd Salleh

*Ministry of Agriculture & Agro-Based Industry (MOA) Strategic Planning & Policy Division, MOA Madam Juita Bt. Md. Lepi Mr. Yeoh Yuan Xiang

Crop, Livestock & Fishery Industries Division, MOA Madam Siti Saleha Abd Latif

Paddy and Rice Industry Division, MOA Madam Siti Atiqah Fatin Bt. Zainal Abidin





Unit Azam Tani, MOA Madam Nur Amalina Bt. Mohd Najib

Department of Agriculture, DOA

Mr. Ismail B. Muhammed Madam Kasazlinda Bt. Jamal Mr. Mohd Hafiz B. Ramly Madam Noor Zaini Ahmad

Urban Farming Division, MOA

Federal Agricultural Marketing Authority, FAMA, MOA

Madam Shahiida Musa Mr. Firdous B. Abu Bakar Mr. Mohd Nor Badlishah Ahmad Shahrin Mr. Muhammad Nizam Jamari

Malaysian Agricultural Research & Development Institute, MARDI, MOA Madam Normah Bt. Omar

*Ministry of Communications & Multimedia Malaysia (MCMM) Mr. Muhamad Lutfi Mr. Khairul Mahyuddin Areni

Department of Broadcasting Strategic Development Division, MCMM Y.Brs Dr. Zainal Abidin Sait Madam Nuurul Akmal Razali Malaysian Communications and Multimedia Commission

*Ministry of Plantation Industries & Commodities (MPIC) Mr. Sutekno B. Ahmad Belon

Malaysian Palm Oil Board, MPIC Dr. Kanga Rani Selvaduray

*Ministry of Science, Technology and Innovation (MOSTI) Dr. Abdul Ghani Abdul Aziz Ms. Nordiyana Mohd Ridzuan

*Ministry of High Education (MOHE) Research Management Unit, MOHE Madam Siti Fazlina Bt. Mohd Sani Madam Punithavalli Marimuthu

*Department of Statistics Malaysia Prices, Income & Expenditure Statistics Division Dr. Mohd Uzir Mahidin

Tn Hj Ibrahim B. Jantan Madam Jamaliah Bt. Jaafar Madam Fauzana Bt. Hj Ismail





ACKNOWLEDGEMENTS

The successful completion of this Project was possible with the support extended by the Malaysian government, in particular Economic Planning Unit (EPU), Prime Minister's Department which provided us country clearance for conducting this Project (**Appendix I**). We would like to thank the Director General of Health Malaysia for his permission to publish this report. The Research Team is indebted to YBhg. Datuk Dr. Lokman Hakim B. Sulaiman, the former Deputy Director General (Public Health) of the Ministry of Health, who welcomed this Project's solution-oriented approach rather than been problem-oriented for conducting this Food-Environment Policy analysis for Malaysia. We are appreciative of the central role played by the Nutrition Division, Ministry of Health, for referencing policies and assisting us to initiate and engage with relevant stakeholders, as well as navigate the benchmarking process of policy analysis. Several government officials and relevant stakeholders contributed time to answer and verify official information, validate prepared content as well as attend the FEER Workshop. We, therefore express our deep appreciation to all engaged Units, Divisions and Departments within and outside the Ministry of Health.

We would particularly like to extend our appreciation for the efforts of Dr. Sirinya Phulkerd who played the role of the third-party organisation in this Project. They kindly and willingly shared with the Malaysian Team, the Thailand experience of conducting the Food-EPI. In-kind contributions were supported by the School of Healthcare Sciences, Faculty of Health Sciences, Universiti Kebangsaan Malaysia (UKM), Malaysia and Early Start Research Institute, School of Health and Society, Faculty of Social Sciences, University of Wollongong, Australia. Lastly, we appreciate the funder of the project - International Development Research Centre (IDRC), Canada (Grant No. 108176-001) and facilitators of the FEER Workshop for their support in enabling this first Food-EPI benchmark in Malaysia.





EXECUTIVE SUMMARY

Unhealthy diets that are associated with obesity and non-communicable diseases (NCDs) are increasingly prevalent in Malaysia. Such diets are partly the result of poor food environments, where unhealthy foods are the easy and desirable choices. The creation of supportive food environments is now being mooted for NCD prevention. The main objective of this Project was to benchmark the extent of implementation of food environment policies in Malaysia, against international best practice. This Project was led by the National University of Malaysia (UKM) with the technical support from the International Network for Food and Obesity/NCD Research, Monitoring and Action Support (INFORMAS) – an established global network of food policy researchers and institutions whose aim is to create healthy food environments and reduce obesity and non-communicable diseases globally.

METHODS

The **Government Food-Environment Policy Index (Food-EPI)** is a tool developed by INFORMAS to assess the extent of implementation of food environment policy against international best practice, based on the World Health Organization (WHO) building blocks to strengthen health systems. Food-EPI comprises an assessment of policies and infrastructure support, across 13 domains

with 47 indicators. The assessment uses policy details from publicly-available documents, supplemented with 'personal communications' with relevant policy makers. Data were collected in Malavsia between August 2016 and April 2017. A Panel of 26 public health experts with equal gender distribution and representatives from non-governmental organizations (n=15) and academia/ professionals (n=11) were recruited. Ratings were performed by the Panel based on local evidence validated by the government stakeholders and compared against international best practice. For intentions and plans of the government, these were treated as at the stage of 'agenda-setting and initiation', which



policies were yet to be executed, and hence a lower score could be applied when rating this aspect. Later, policy actions were proposed according to perceived implementation gaps and prioritised by the Panel as per 'importance' and 'achievability' criteria. The sum of points as per these criteria was reported as unweighted total score for each indicator.





KEY FINDINGS

Overall Malaysian food environments were rated positively, but not high in any particular area. A majority (62%) of policy areas were rated as low implementation (26-50%), with 38% as medium implementation (51-75%). Under the policy component, ingredient lists and nutrient declaration, food-related income support for healthy foods and food regulatory systems for health and nutrition claims ranked as the top 3 indicators with <u>medium</u> implementation. Restrictions on unhealthy foods promotion in children's settings and broadcast media, as well as food composition standards for out-of-home meals were rated as having <u>low</u> implementation with the lowest ranking. With respect to the infrastructure support component, the top 3 indicators with <u>medium</u> implementation go population nutritional status and intakes against targets, and monitoring of NCDs' risk factors and prevalence. The funding stream for statutory health promotion agency, restriction on commercial influence in policy development and processes to assess health impacts during development of non-food policies were rated with the lowest scores and were classified as having <u>low</u> implementation. Clear gaps in policy implementation were identified, and positive suggestions for improvements were made.

PRIORITY RECOMMENDATIONS

From a list of 32 proposed policy actions, the top 15 policy actions with unweighted total score of \geq 249 were selected and framed into a policy recommendation package for the Malaysian government. This comprised 8 domains covering both 'policy' and 'infrastructure support' components. Five domains were prioritised under the 'policy' component, including:

- Food promotion (n=3 policy actions): Scopes covered restricting unhealthy food promotion in children's settings, and on broadcast and non-broadcast media
- Food labelling (n=2): Scopes covered introducing mandatory nutrition labelling of sodium, total sugar and added sugar and menu board labelling
- Food composition (n=2): Scopes covered establishing sodium targets and investigating standards for added sugar and saturated fats
- Food retail (n=1): It included to investigate opening hours and placement of fast food outlets
- Food prices (n=2): Scopes included the implementation of sugary drinks taxes and investigating the price rise in fruit and vegetables

The remaining 3 domains were related to 'infrastructure support' component. The actions included sustainable funding and resources (n=3) for research targeting reduction of obesity, NCDs and their inequalities, commensurate population nutrition budget and statutory health promotion board; optimise monitoring of anthropometry results with appropriate feedback mechanism (n=1) and improve governance by strengthening access to information related to public consultation (n=1).





The mapping and statements of the top 15 prioritised policy actions are shown in **Figure 1**. The top 5 policy actions recommended by the Expert Panel are listed below:

Top 1	To enact a policy to restrict unhealthy food and beverage marketing in children's settings (including sponsored education).
Тор 2	To support the implementation of the planned regulations on mandatory nutrition labelling (sodium, total sugar) and quantitative ingredient declarations, and also include added sugars on the nutrient label.
Тор 3	To implement regulations to restrict the power and exposure of broadcast promotions for unhealthy food and beverages to children.
Тор 4	To continue to designate the reduction in obesity and diet-related NCDs and their inequalities as a priority area for research and to provide funding commensurate with this prioritisation across different government agencies.
Тор 5	To require all fast food chain outlets (>20 outlets nationally) display calorie labelling on menu boards and promote their use in other food outlets (e.g. <i>mamak</i> stalls).

CONCLUSION

Т

This Technical Report presents in detail the process of the first benchmarking of policies related to the food environment in Malaysia. Overall, about one-third of the indicators were rated <u>medium</u> implementation and no indicators were classified as <u>very low</u> implementation. However, in comparison with international best practice, there is room for improvement by the Malaysian government. Findings should be used positively to stimulate strategies to close the gaps in policy implementation. Policy makers and implementers could use this report as a resource for policy development. Key policy actions are proposed both for professional bodies and non-governmental organisations to focus their advocacy and for policy makers to direct their efforts for effective policies that address the high-risk phenomena of obesity and diet-related NCDs. Government, in collaboration with civil society and public health interests, can act to achieve a healthier food environment for Malaysia.



stalls). [Top 5]

с.

٩Ļ

÷ сi Figure 1 Mapping of top 15 prioritised policy actions to the Malaysian government

areas. [Top 7]

of

To enact a policy to restrict unhealthy food and beverage marketing (including sponsored

Food Promotion

education, sports and cultural activities) in children's settings [Top 1]

<u>.</u>



FOOD-EPI MALAYSIA XV



Added sugar: Sugars that are either added during food processing (excludes naturally occurring sugars e.g. milk – lactose). These include sugars (free, mono- and disaccharides), sugars from syrups and honey.

Benchmark: A standard or point of reference against which the aspects of food environments or policies can be assessed and compared.

Diet-related non-communicable diseases (NCDs): Diet/ nutrition related chronic diseases such as Type II diabetes mellitus, cardiovascular diseases, hypertension, chronic kidney diseases and cancers.

Extent of implementation: Refers to any intention or plan of the government and policies implemented by the government as well as government funding for the implementation of actions undertaken by non-governmental organisations.

Food: Refers to food and non-alcoholic beverages.

Food environments: The collective physical, economic, policy and socio-cultural surroundings, opportunities and conditions that influence people's food and beverage choices and nutritional status.

Healthy food environments: Environments in which the foods, beverages and meals that contribute to a population diet meeting the Malaysian Dietary Guidelines are widely available, affordably priced and widely promoted.

Unhealthy foods: Processed foods or non-alcoholic beverages high in nutrients of concern.

Mandatory: A rule that imposes a legal obligation.

_

Nutrients of concern: Saturated fats, trans-fats, added sugars and salt.

Policy: Any decision made by the government on what to do or not to do (e.g. soft or hard policy).

Policy cycle: There are 4 main components in the 'policy cycle':

- agenda-setting and initiation (e.g. conceptualise an idea/ discuss an issue)
- policy development (e.g. drafting guidelines/ standards/ laws etc.)
- implementation (e.g. execute the developed policy)
- monitoring (e.g. keep track of the implementation)

Voluntary: Power of free choice without legal obligation









1.0 Background: Malaysia

Non-communicable diseases (NCDs) are responsible for 73% of all mortality in Malaysia and this is largely attributed to diet-related cardiovascular diseases (CVD) and diabetes (WHO 2014). The recent National Health and

"Obesity and noncommunicable diseases (NCDs) are becoming a public health problem in Malaysia."

Morbidity Survey (NHMS) 2015 revealed an alarming burden of Type II diabetes mellitus (17.5%), hypertension (30.3%) and hypercholesterolemia (47.7%) among adults aged 18 years and above, which increasing prevalence with age (IPH 2015). About one-third of adults were recorded as overweight (33.4%, BMI 23.0-27.5kgm⁻²) and a further one-third were obese (30.6%, BMI≥27.5kgm⁻²). Increased body adiposity is also impacting children. NHMS 2015 reported the prevalence of obesity (using BMI-for-age >+2SD) was 11.9% among children aged <18 years. In addition, the Malaysia School-Based Nutrition Survey (MSNS) 2012 indicated the prevalence of overweight and obesity using BMI-for-age, as 14.6% and 12.4%, respectively for adolescents aged 10 to 17 years (IPH 2013). All evidence supports the fact that obesity and NCDs are becoming a public health problem in Malaysia.

Dietary risks (12.2% of attributable risk, 95% CI 11.0-13.6) constitute the largest proportion of total disability-adjusted life years (DALY) for all causes of disease in Malaysia, followed by high blood pressure (9.1%, 6.9-11.0), tobacco smoking (7.8%, 6.8-9.0), high BMI (5.8%, 4.7-7.0) and high fasting plasma glucose (5.3%, 3.8-6.9). Unhealthy diets, high in sodium, trans-fat and sugar-sweetened beverages, but low in fruits, vegetables, polyunsaturated fatty acids and whole grains are commonly implicated factors for the occurrence of CVD and diabetes in Malaysia (IHME 2013). The latest NHMS 2015 acknowledged gaps in implementation of policies to address rising rates of NCDs and advocated the need for a more aggressive approach by combining both soft and hard policies (IPH 2015). However, the debate is about – 'How to proceed?', 'Which policies are lacking?' and 'Which policies are to be strengthened?'.

1.1 The Logic Behind Modifying the Food Environment

The food environment is a complex dimension of food issues related to availability, quality, promotion, costs, rules, social norms and beliefs, which influence people's food and beverage choices and nutritional status (Swinburn et al. 2013a). The food industry (including food growers, importers, manufacturers, retailers and marketers), government and society are three major influences affecting the food environment. The government has the authority to use regulations and laws, fiscal policies, education and health promotion to shape the food environment. Although personal decisions influence lifestyle choices, the individual's choice for healthy foods is undermined when obesogenic environments present unhealthy foods as the easy and desirable choice. Other considerations include increased purchasing power of the consumers, commercial mass-marketing campaigns and market deregulation embedded within economic policy and trade agreements that favour foreign investment (Moodie et al. 2013; Swinburn et al. 2011). Policy interventions directed at the food environment should ultimately seek to make healthy choices easier and more automatic, rather than compelling the individual to consciously make healthy choices. To facilitate food environment policy development within countries, it is useful to benchmark progress against other countries that are considered to be leaders in such policy implementation. Such comparisons provide an evaluation of how well a country is progressing and identifies potential areas for continued improvement in the creation of supportive food environments.





1.2 INFORMAS Public Sector Module: Government Food-EPI

This Project adapted the Food-EPI protocol from INFORMAS, and included relevant indicators by taking into consideration the local context in Malaysia, as well as referring to experience of other countries who have conducted this public-sector module (e.g. New Zealand, United Kingdom, Australia and Thailand). The International Network for Food and Obesity/NCD Research, Monitoring and Action Support (INFORMAS) is composed of a global network of public-interest organisations and academic institutions supporting WHO Global Action Plan for the Prevention and Control of NCDs (2013-2020) and the World Cancer Research Fund International NOURISHING framework. It aims to monitor over time, benchmark and support actions between countries to create healthy food environments and reduce obesity, NCDs and their related inequalities (Swinburn et al. 2013a). INFORMAS is supported by the World Cancer Research Fund and Consumers International and functions under the auspices of the World Obesity Federation's policy and prevention section (Vandevijvere et al. 2015).

The Food-EPI monitoring tool was developed based on an intensive review of policy documents such as peer-reviewed papers, United Nations System reports and website, government reports and websites as well as NGO/ academic reports and websites (Swinburn et al. 2013b). As of June 2017, 16 countries have conducted or planned to conduct Food-EPI modules worldwide.

The monitoring tool was designed to assess two components - "Policies" and "Infrastructure support" (**Figure 2**). Each component was further divided into domains, followed by indicators. The main changes of indicators related to the Food-EPI tool in Malaysia, compared to New Zealand (the first country to conduct Food-EPI in 2014) included:

- i. The food composition indicator was broadened to include foods away from home and processed foods.
- ii. The food promotion indicator for media was broadened to include broadcast (e.g. television, radio) and non-broadcast media (e.g. Internet, social media, food packaging, sponsorship, outdoor advertising including around schools).
- iii. The scope of food retail indicator was broadened for healthy foods and food service outlets (e.g. hawkers).
- iv. The funding and resources indicator was broadened by including a good practice statement related to funding stream for a health promotion agency.

The "Policies" component benchmarks 7 domains: food composition (n=2 indicators); food labelling (n=4); food promotion (n=3); food prices (n=4); food provision (n=4); food retail (n=4); and food trade and investment (n=2). The "Infrastructure support" component benchmarks 6 domains: leadership (n=5 indicators); governance (n=4); monitoring and intelligence (n=6); funding and resources (n=3); platforms for interaction (n=4); and health-in-all policies (n=2).

Good practice statements or indicators (n=47) were developed by INFORMAS for each domain. These theoretical statements or ideal policies were designed by international experts and described the measures that governments could put in place to help create healthier food environments. It should be noted that such statements might be impractical and not found in a real-life setting within a specific country. As such, best practice examples are also collated, against which country progress is benchmarked.



4 FOOD-EPI MALAYSIA



Source from Swinburn et al. (2013b)

Figure 2 Overall framework of Food-EPI in Malaysia







2.0 Food-EPI Procedures

Food-EPI is a tool to benchmark the Malaysian government's progress in implementing healthy food environment policies, and to assess the levels of infrastructure support provided by the government in implementing these policies.

2.1 Project Approval

The Project received ethics approvals from the Research Ethics Committee, The National University of Malaysia (UKM PP1/111/8/JEP-2016-394), Social Science Human Research Ethics Committee of the University of Wollongong (HE16/297) and Medical Registry from the Medical Research and Ethics Committee, Ministry of Health Malaysia. The Economic Planning Unit, Prime Minister's Department provided the country clearance for the International Development Research Centre (IDRC) grant application in 29th October 2015 (**Appendix I**), followed by an endorsement letter to seek official support from relevant Ministries/ Departments dated 25th April 2016.

2.2 Project Process (Data Compilation)

Food-EPI is a 10-step process (**Figure 3**) that assesses the extent of implementation of the Malaysian government policies and actions, against international best practice.

There are 3 main stages, including:

- Evidence Compilation and Food-EPI Report Preparation (steps 1-6 in Figure 2)
- Assessment of performance (steps 7-9)
- Advocacy (step 10)

2.2.1 Evidence Compilation and Food-EPI Report Preparation

Step 1: Local review of good practice indicators

Good practice indicators were reviewed by the Research Team under #Step 1.



FOOD-EPI 7



Figure 3 Process flow of Food-EPI



Step 2: Engagement with stakeholders

Collection of relevant policy documents and engagement with government stakeholders via official information requests began in June 2016 (#Step 2). Official letters were issued by the Principal Investigator (TK) and endorsed by the Vice Chancellor of UKM (YBhg. Prof. Datuk Dr. Noor Azlan Ghazali) to Director Generals or Secretary Generals of 11 Ministries and the Economic Planning Unit. In addition, information requests were extended to 6 governmental Departments, the PERMATA Division and the Film Censorship Board during the compilation of local evidence.

Feedback from relevant Ministries, including the Ministry of Health Malaysia was received in August 2016. A formal meeting between government stakeholders, comprising representatives from various agencies, the Research Team and a representative from INFORMAS (Prof. Boyd Swinburn) was arranged by the Nutrition Division, Ministry of Health on 17th August 2017. This meeting laid the foundation for a high level of commitment and support from the Ministry of Health (MOH) for the Project by contributing relevant data, as endorsed by the former Deputy Director General (Public Health) - YBhg. Datuk Dr. Lokman Hakim B. Sulaiman.

Steps 3-5: Policy scan and validation

The compilation of evidence and preparation of the Food-EPI report as Workshop material was initiated in August 2016 and completed by March 2017, covering #Steps 3-5. Information collected include the "extent of implementation" of food environment policy by the Government (as local evidence), covering aspects such as:

- 1. The intentions and plans of the government
- 2. Government funding for implementation of actions undertaken by non-governmental organisations (NGOs)
- 3. Actions and policies currently implemented by the government

Firstly, indicators were screened by senior officials from the Nutrition Division, MOH Malaysia as the main focal point for information (#Step 3). Based on their recommendations and using a snowball sampling method, relevant government officials were identified and engaged through 'personal communication' and/ or 'email'. Considering that food environment policies cover a broad spectrum and include areas falling under jurisdictions outside MOH, engagement of other stakeholders and data collection was expanded to Ministries/ Departments outside the Ministry of Health. These complemented gaps in information on policy implementation and future plans. **Figure 4** shows the engagement mapping of government stakeholders involved in Food-EPI data collection. In addition, **Appendix II** outlines information gathered from respective Ministries/ Departments/ Agencies for each indicator.

Face-to-face meetings with government agencies (Heads of Department/ Senior Officers) were also undertaken to explain, reassure and verify the overall purpose of building confidence with stakeholders and ensuring the recognition of the Research Team. Maximum effort was taken to validate the local evidence gathered through government stakeholders (#Step 4). Amendments were done according to the comments or suggestions provided and the finalised version was proof-read. The latest version of international best practice exemplars was updated as at 15th March 2017, based on updates from the INFORMAS team (#Step 5).



3/21/18 11:47 AM

Figure 4 Engagement mapping of government stakeholders





Step 6: Piloting of the Food-EPI process

A draft report comparing the extent of implementation in Malaysia and international best practice benchmarks was proof read by the Research Team (TK, BK and BS). The draft was pilot tested (content validity) by 2 independent professionals from nutrition and non-nutrition backgrounds (#Step 6). Level of difficulty to rate, completeness and appropriateness of evidence was determined based on 4-point Likert scales (Difficult: 1; Fairly Difficult: 2; Fairly Easy: 3; and Easy: 4). The average score for each indicator was calculated, of which indicators with score ≤ 2 (n=3 over 47 indicators) were improved based on the given comments.

2.2.2 Assessment of Performance by FEER Panel

Step 7: Ratings performed by The Experts

A finalised draft of Malaysian evidence - "Food-EPI Malaysia 2016/17" was included as Workshop reference material (hard-copy) to all participating Experts. This document was mailed out 2 weeks before the Food-Environment Policy Index Expert Rating (FEER) Workshop, which was scheduled on 11th April 2017. FEER members were required to read and perform pre-rating of each indicator prior to the Workshop. A video tutorial on 'how to read the document and rate the indicators' was provided as a guide for FEER members to be accessed online as per the link - <u>https://www.youtube.com/watch?v=ZLjfwxAmbZ4</u>.

The Food-Environment Policy Index Expert Rating (FEER) Workshop was held on 11th April 2017 to benchmark the extent of implementation of food environment policies by the FEER members, against international best practice (#Step 7). In total, 49 Experts from academia, professionals and representatives from non-governmental organisations (NGOs) were invited. However, 10 invitees declined, followed by 8 last minute withdrawals (e.g. out-of-station on the Workshop date, attachment overseas, on sabbatical leave etc.), while there was non-response from 4 invitees. In addition, an Expert who was invited as an academic became an NGO's representative. Therefore, the final rater sample fraction was 53.06% (i.e. 26/49*100%).

Participation

Out of the 26 Experts from NGOs and academia/ professionals who had consented to participate in FEER, 24 Experts attended the Workshop, along with 21 government stakeholders from various Ministries/ agencies as observers. The rating was performed by the Experts (n=26, 24 in person and 2 responding via email) for 47 indicators based on local evidence gathered, against international best practice benchmarks. Presentation of each indicator was via a 2-3 minutes PowerPoint presentation to the attendees. It began with good practice statements, followed by summarised international best practice benchmarks and local evidence points (**Figure 5**). Government stakeholders were invited to provide any further updates on the information presented, prior to the rating process commencing. Additional information on the **FUND2** indicator related to funding and resources for research from the Ministry of Higher Education and Ministry of Health was obtained in early April 2017; these data were provided as supplementary materials to the Experts' prior to the rating occurring.

FOOD-EPI 11



Figure 5 Flowchart of FEER Workshop





Measuring Votes

The voting process was conducted using an automated audience response tool (Lite Keypad), which allowed interactive and anonymous responses to be recorded. A 10-point Likert scale (1= low implementation to 10=high implementation) as well as "Yes and No" ratings were used in the rating process. Along with this, FEER members also used the rating form to record the final score for each indicator.

Process of rating

For each vote, local evidence was rated against international best practice benchmarks. At the start, FEER members were briefed that no country could achieve the whole range of best practice benchmarks as per good practice statements. Thus, expert judgements were required based on the "quality" of government policies and the extent of implementation with respect to the "policy cycle". The intentions and plans of the government were treated as at the stage of 'agenda-setting and initiation', as the policies were yet to be executed, and hence a lower score could be applied when rating this aspect.

The rule of thumb to initiate a discussion was predefined as a cut-off of $\ge 2/3$ majority rating "Yes" to the question of whether they would make recommendations to government on each indicator. The scope of discussion was to identify gaps in implementation, propose policy action(s), request government stakeholders to comment on the feasibility of the proposal and summarise or refine the sentence for proposed policy action(s).

In order to guide active and fruitful discussion sessions, a list of examples for proposed policy actions from Thailand and New Zealand, as well as statements on room for improvement proposed by the Research Team, were provided to all participants. An estimated time of up to 6-7 minutes was allocated for discussion (facilitated by BS, BK, TK, MNI and NSH), if any. Overall, a maximum of 10 minutes was allocated to complete the process for each indicator.

Step 8: Calculation of scoring and prepare prioritisation

Data analysis and interpretation for each indicator mainly relied on the scoring from the rating form (#Step 8). However, if there were any missing data, results from the interactive voting system were used as substitutions. The mean rating for each indicator was calculated in percentage and categorised into 'Very little, if any' (<25%), 'Low' (26-50%), 'Medium' (51-75%) and 'High' (>75%). Inter-rater reliability was performed using the Gwet AC2 statistic and rater sample fraction was fixed as 53.06%. The level of agreement between raters for the overall score was recorded as 0.65 (95% CI 0.56-0.74).

A list of 42 proposed policy actions was recommended. Further refinement of the list was performed by the Research Team (BK, TK and NSH) to formulate concise and comprehensive statements. Later, the Research Team invited via emails various Ministries/ Departments (n=15) to provide feedback on the statements for proposed policy actions. This approach aimed to consolidate valuable opinions on the proposed policy actions, from the lens of inside government and in line with the desire to foster mutual understanding and collaboration with government stakeholders throughout the Food-EPI process. A total of 7 government agencies responded within 5 days. These included Ministry of Health (Nutrition Division, NCD Section and Institute





for Health Systems Research), Ministry of Urban, Well-being House and Local Government (Local Government Department), Ministry of International Trade and Industry (Sector Policy Division), Ministry of Agriculture and Agro-Based Industry (Strategic Planning and Policy Division) and Community Development Department.

All valuable inputs from government agencies (e.g. refinement of wording) were considered by the Research Team and amended accordingly, prior to the next step. This step served to inform and engage government stakeholders within different portfolios and develop a "sense of ownership" on the proposed policy actions. In addition, should the prioritisation results be taken up by the relevant Ministries/ Departments, this approach served to build a strong foundation for this purpose.

Step 9: Prioritisation Process

A final list of 32 proposed policy actions was constructed for the prioritisation process. The list comprised of 4 categories including "Prioritise Policy Actions" (n=9 proposals); "Prioritise Infrastructure" (n=11); "Prioritise Investigation" (n=8); and "Support" (n=4). The policy actions were prioritised by FEER members via an Excel file sent through email, together with a video tutorial on "How to complete the prioritisation process?" (https://www.youtube.com/watch?v=mUvZKxBVTBM). There were 6 spreadsheets in the Excel file. The first spreadsheet contained 'Instructions' for prioritising proposed policy actions. The second spreadsheet - "Complete List" provided the overview of proposed policy actions. Experts were required to prioritise the remaining 4 spreadsheets based on 'Importance' and 'Achievability' criteria. The details of the spreadsheets are described in **Table 1**.

Spreadsheet/ Category	Description	Maximum points per criteria
Prioritise Policy Action	Summarise 9 proposed policy actions under "Policy" component in Food-EPI.	45
Prioritise Infrastructure	Summarise 11 proposed policy actions under "Infrastructure support" component in Food-EPI.	55
Prioritise Investigation	Summarise 8 proposed policy actions that require further investigation as complexity of implementation and insufficient surveys, studies or local evidence are limitations at the moment to guide policy development in this area.	40
Support	Summarise 4 proposed policy actions by the Experts that are in line with the intention and plans of the government. This spreadsheet aims to obtain consensus and prioritisation of the actions from the Experts in order to broaden the scopes/ areas of the plans by the government.	20

Table 1 Description for prioritisation

Notes:

1. 'Importance' criteria include the size of the implementation gap, effective of the actions to improve food environments and diets, progressive or regressive effects on reducing the health inequalities, other positive and negative effects (e.g. protecting rights of the children/ consumers vs infringement of the personal liberties).

2. 'Achievability' criteria cover the feasibility of action to be implemented, level of support from key stakeholders (e.g. government, public, industry etc.), cost and effectiveness of the action.

3. Each spreadsheet represents category of the proposed policy actions.





Each proposed policy action was allocated 5 points (by default) for importance and achievability criteria. A maximum point for each criterion was set differently for each spreadsheet (e.g. 45 points and 55 points for "Prioritise Policy Action" and "Prioritise Infrastructure" spreadsheets, respectively). Experts were required to redistribute the points (using whole numbers only) in line with priority. The total points allocated for different spreadsheets had to equal the maximum points assigned as per the criteria columns. Points allocated to importance and achievability were combined into one score (unweighted score) for each proposed policy action. Experts were required to weigh these criteria (default as 50:50), respectively to form the weighting of individual scores (weighted score). Total unweighted scores and weighted scores were used to rank the top policy actions for government action. The duration of prioritisation process was from 25th April 2017 to 30th June 2017.

2.2.3 Advocacy

Step 10: Feedback of Results

Feedback on the results was compiled into this Technical Report for use by relevant stakeholders. A policy package was formulated specific to the Malaysian population, with the aim to facilitate the creation of healthy food environments through championing food sovereignty of an individual to make informed choices and have accessible, affordable and available healthy foods and beverages.

Note: Figure 6 outlines the steps and the major outcomes of the Food-EPI process.

FOOD-EPI 15



Figure 6 Timeline of Food-EPI process and major outcomes



16 FOOD-EPI MALAYSIA



FEER Workshop Facilitators: Ms. Vemala Devi Balakrishnan, Ms. Sharmela Sahathevan, Mr. Khor Ban Hock, Mr. Se Chee Hee, Mdm. Gaiyal Viliy Balasubramanian, Ms. Iman Hafizah, Mr. Alvin Lim, Ms. Tiffany Lim, and Ms. Phelicia Ooi.

Special thanks to Dr. Nurul Huda Razalli and Assoc. Prof. Dr. Jacinta Santhanam for your valuable inputs and assistance into this Workshop.

The Workshop Process with Participants in Action









3.0 Benchmarking Implementation of Food Environment Policies: Scorecard for Government

Overall the findings were positive, showing government efforts in all 47 ratings performed by the Experts for 'policy' and 'infrastructure support' components. None of the indicators were rated as <u>very little</u>, if any implementation. This implies that there are existing policies in place and/ or planned to be implemented by the government for each indicator as specified by Food-EPI. In comparison, the Food-EPI rating for Thailand yielded 12 indicators showing "nil" implementation by the Thai government (Phulkerd et al. 2016).

The findings also indicate that opportunities remain for improvement in 'policy' and 'infrastructure support' components related to creating a healthier food environment in Malaysia. None of the indicator was rated as <u>high</u> implementation, against international best practice benchmarks. A majority (62%) of indicators were rated as <u>low</u> implementation, and 38% were rated as <u>medium</u> implementation (**Figure 7**). The indicators rated with the highest scores (<u>medium</u> implementation) were: establishment of food-based dietary guidelines and population intake targets; monitoring nutrition status and intakes; monitoring NCDs risk factors; and prevalence and ingredient list and nutrient declaration. The indicators with the lowest scores (<u>low</u> implementation) were: restriction on unhealthy food promotion; food composition targets for out-of-home meals at food service outlets; unhealthy food taxes; government policies and zoning laws for unhealthy foods; and funding stream for health promotion agency.










3.1 Prominent Indicators under 'Policy' Component

Table 2 lists the prominent indicators in descending order based on the mean score. Under the 'policy' component, food labelling in Malaysia was rated as having the highest score by the Experts for ingredient list and nutrient declarations (LABEL1), and the regulatory systems for health and nutrition claims (LABEL2). Experts' comments related to the medium implementation rankings for LABEL1 and LABEL2 were that

Box 1 – Implementation gaps

- 1. To include added sugar (rather than total sugar), sodium and saturated fat in nutrient declarations.
- 2. To expand the food labelling to other food types.
- 3. Lack of a nutrient profiling model similar to New Zealand (international best practice), which relates to permitting food claims based on nutrients of concern.
- 4. Foods with "nutritious" label need to specify level of "nutrient of concern".
- 5. Lack of verifications on labels and enforcement/ monitoring on nutrition labelling.

food labelling was 'fairly comprehensive' and 'almost in line with the international standards'. Implementation gaps were identified by some Experts who suggested a number of improvements to improve these areas are listed (**Box 1**).

Extensive policies on food-related income supports (**PRICES4**) such as food basket programmes with basic food groups, supplementary foods and school milk programmes, urban farming, etc. contributed to this indicator being rated as Top 2 under the 'policy' component. According to the comments given, appraisals obtained for **PRICES4** were that this was a 'good initiative by the government', and that 'local measures are strong and monitoring seems to be adequate'. However, several gaps were identified as outlined in **Box 2**.

Box 2 – Gaps identified in food-related income supports

- 1. Public might not be aware of listed programmes.
- 2. In reference to programmes listed in international best practices, a wider access to food items implemented through the *Special Supplementary Nutrition Program for Women, Infants, and Children* in United States improved composition of foods by providing participants with greater dollar allocations for purchase of fruits and vegetables, whole-grain options etc.
- 3. To study both macro- and micro-nutrients needs of the beneficiary of the programmes.
- 4. To investigate the use of food coupons as a part of the 1Malaysia People's Aid (BR1M) programme.





Food provisions in schools (**PROV1**) and public-settings (**PROV2**) were rated as having <u>medium</u> implementation and ranked as the Top 4 and Top 5 policy areas, respectively. Experts' comments acknowledged many opportunities to provide guidance and nutritional standards, of which systems were in place at various settings. However, the gaps in implementation identified by the Experts are listed in **Box 3**. Suggestions included providing uniform standards, expanding policies to private schools and upgrading guidelines into mandatory standards/ laws.

Box 3 – Implementation gaps

- Local policies did not measure up to international standards, which have specific standards on nutritional requirements (e.g. prohibits sale of foods with sugar content >10g/ 100g or >5g/100ml).
- 2. Reservation on implementation requirements of the guidelines/ standards, and
- 3. Enforcement and monitoring were still inadequate, particularly in schools. Public might not be aware of listed programmes.

On the other hand, restrictions on unhealthy food promotions in all broadcast and non-broadcast media (e.g. TV, radio, outdoor advertising, social media, etc.), and children's settings (**PROMO1-3**) were rated as having <u>low</u> implementation, against international best practice benchmarks. The major gap was cited as a relatively weak self-regulatory approach in Malaysia, compared to strong and enforceable legal frameworks in international standards such as in Chile and South Korea (World Cancer Research Fund 2017a). Notably, future policy in this space was acknowledged by the Expert as 'laudable but incomprehensive' and cited recommendations are summarised in **Box 4**.

Box 4 – Cited recommendations

- 1. To apply mandatory regulatory approach and implement children-specific nutrient criteria to restrict food advertising directed to children.
- 2. To explore the possibility to restrict unhealthy food promotion beyond children's programmes or no advertisements during peak period (e.g. 5-7pm in South Korea).
- 3. To develop rules or guidelines for health promotion or sponsorship approvals in schools to avoid unhealthy foods being commercially promoted.
- 4. To monitor children's exposure and to investigate the effects of mandatory regulatory approach.





According to the Experts, food composition standards for out-of-home meals in food service outlets (**COMP2**) was rated as having <u>low</u> implementation, as compared to countries such as New Zealand (The Chip Group 2017), New York (New York City Health 2016; World Cancer Research Fund 2017b) and The Netherlands (National Institute for Public Health and the Environment 2016). The limitation to set specific targets for nutrients of concern (e.g. standards for types of cooking oil to be less saturated fats or specific salt and sugar targets) was recognised as the gap in implementation. Up to now, no standardised targets have been applied to other countries for this indicator (e.g. New Zealand set a target as industry standard for deep frying oil; whereas trans-fat and voluntary salt standards have been prioritised in New York), and hence prioritisation for this area was cited by the Experts. Despite continuous engagement with fast food industries in this area since 2014, a strong recommendation from the Experts was to expand the coverage to non-fast food outlets, in particular to cover 24-hour food outlets or *mamak* stalls via engagement with representative associations.

A policy related to taxes on unhealthy foods (**PRICES2**) was ranked as <u>low</u> implementation, compared to international best practice benchmarks such as a tax on sugary beverages in

Mexico, United Kingdom and French Polynesia, as well as a public health tax in Hungary. In consideration of the government plans to impose taxes on selected unhealthy foods, the Experts recommended several key messages to the government and summarised in **Box 5**.

Robust government policies

Box 5 – Cited recommendations

- 1. A holistic approach to directly channel revenues collected from tax increments to public health programmes or health promotion.
- 2. A strong political will is warranted, together with active and comprehensive public health campaigns.

and zoning laws for unhealthy foods (**RETAIL1**) and restriction on unhealthy food promotion in non-broadcast media (**PROMO2**) were similar in ranking for <u>low</u> implementation category. The Experts' comments highlighted that the international best practice benchmarks were relatively well-defined and clear, compared to current guidelines in Malaysia. Since there is an intention by the government to restrict operating hours for food outlets which is already in the pipeline, several critical points were highlighted by the Experts and summarised in **Box 6**.

Box 6 – Critical points highlighted by the Experts

- 1. Lack of clarity and insufficient robust future plan (e.g. restrict sales up to 10pm).
- 2. Standardised by-laws/ regulation of local government.
- 3. Grey area of classifying unhealthy foods.
- 4. Implementation of the plan remains questionable as pre-existing barriers include insufficient human capacity, different management system for each local government and reduction in income collection from license fees etc.





	511111	ciit ii	initiation as per inolicy component			
			Policy Component			
Rank		Indi	icators			
Highest	1	al	Food labelling related to ingredient lists and nutrient declarations (LABEL1)			
Ranking	2	al	Food-related income support is for healthy foods (PRICES4)			
	3	,d	Food regulatory systems for health and nutrition claims (LABEL2)			
	4	al	Policies in schools that promote healthy food choices (PROV1)			
	5	al	Policies in public settings that promote healthy food choices (PROV2)			
Medium Ra	ankin	ıg	Not specified			
Lowest Ranking	6	đ	Robust government policies and zoning laws for unhealthy foods (RETAIL1) and			
		all	Restrict promotion of unhealthy foods in non-broadcast media $(\ensuremath{PROMO2})$			
	7	all	Increase taxes on unhealthy foods (PRICES2)			
	8	al.	Food composition targets, standards or restrictions for out-of-home meals (COMP2)			
	9	all	Restrict promotion of unhealthy foods in broadcast media (PROMO1)			
	10	all	Restrict promotion of unhealthy foods in children's settings (PROMO3)			

Table 2 Prominent indicator as per 'Policy' component

Note: Numbers in ranking are from highest to lowest values.

= 'Low' implementation (26-50%) III = 'Medium' implementation (51-75%)





3.2 Prominent Indicators under 'Infrastructure Support' Component

Overall, the Experts acknowledged good government leadership for 'infrastructure support', based on the evidence that 3 out of 5 indicators under the leadership domain were ranked as Top 5 (medium implementation) (**Table 3**). These included establishment of food-based dietary guidelines with visual guides such as the Malaysian Food Pyramid and Malaysian Healthy Plate (**LEAD3**); population intake targets (**LEAD2**); and clear and comprehensive implementation plans (**LEAD4**) such as the National Plan of Action for Nutrition of Malaysia, National Strategic Plan for Non-Communicable Disease, Salt Reduction Strategy, etc. The Experts expressed some reservations and provided suggestions to further improve this area as summarised in **Box 7**.

Box 7 – Reservations and suggestions

Reservations on the policies

- 1. The understanding of set targets for dietary recommendations is 'interpreted' in terms of servings of food groups in the *Malaysian Dietary Guidelines* unlike international best practice with Brazil as an example. (The national dietary guidelines of Brazil address healthy eating from a cultural, ethical and environmental perspective, rather than based on number of servings per food group. Brazil's dietary guidelines include recommendations such as 'make natural or minimally processed foods the basis of your diet', 'use processed foods in small amounts', and 'avoid ultra-processed foods' within local context).
- 2. The challenge to translate *Malaysian Dietary Guidelines* into population practice with low adoption witnessed from past experience (as evidenced by findings from the national health and nutrition surveys indicating majority of Malaysians were not able to fully understand and translate the concept of Food Pyramid into practice).

Suggestions to improve:

- 1. To include a clear sugar target to meet World Health Organisation recommendations for dietary intake levels (i.e. free sugar <10% of total energy intake).
- 2. To further strive to achieve the targets requires outcome-based studies or evaluation of effectiveness and robust monitoring for an effective implementation.
- 3. To strengthen the implementation with more advocacy activities.
- 4. To review dietary guidelines more frequently, rather than every 10 years.
- 5. Despite local policies being comprehensive, they are fragmented over a number of policies and plans. Therefore, it is essential to ensure that plans are aligned with clear surveillance and monitoring tools.

The Experts rated monitoring of population nutritional status and intakes against targets (**MONIT2**), and monitoring of NCDs' risk factors and prevalence (**MONIT4**) as having <u>medium</u> implementation and ranked as Top 2 and Top 3, under the 'infrastructure support' component. An Expert pointed out the existence of a fairly robust local monitoring system for population nutritional status and intakes. However, a limitation was noted that monitoring was carried out only every five years

in Malaysia, compared to annual monitoring practice in the United States. The suggestion for improvement provided by the Experts is listed in **Box 8**.

Box 8 – Suggestions to improve

Continuous improvement and regular updates with information.





All indicators under funding and resources domain were rated with <u>low</u> implementation scores, when compared to the international best practice benchmarks. The indicator related to statutory health promotion agency (**FUND 3**) was ranked low. Cited comments from the Experts were "although there is a statutory health promotion agency (MySihat), there is no secure funding" and "ineffective Board due to lack of funds". This was evidenced by a significant reduction in the estimated allocation for dietary health promotion grants provided by the Board, which was reduced from RM 0.91 million in 2014 to RM 0.06 million in 2016.

Funded research to improve food environments and reduce obesity and NCDs (FUND2) was ranked low. The Experts recognised that government provided many research grants in the areas of obesity and NCDs via various agencies, which implied wide opportunities and commitments to combat these burdens. However, worries and reservations were indicated by the Experts as summarised in **Box 9**.

Box 9 – Worries and reservations

- 1. Based on the evidence gathered, research grants provided by government have decreased year by year. If this pattern continues, the research area relating to obesity and NCDs, would in the future become less likely to be the priority of the government.
- 2. There is no targeted research funding scheme provided to improve food environment, reducing obesity, NCDs and their related inequalities. Only guidelines for areas of research are available at the moment.
- 3. Research budgets for nutrition need to be increased, not the reverse. Ministry of Health should be the main player as Ministry of Higher Education has too many areas to cover.

Population nutrition budget (**FUND1**) was rated as insufficient and ranked as Bottom 5 by the Experts. The major gap in implementation as highlighted by an Expert's comment was "no clarity in the breakdown of health spending (on nutrition) and clearly there were insufficient funds to reduce diet-related NCDs". Overall, a list of suggestions was proposed by the Experts to improve the gaps in implementation of funding and resources domain. Details are as listed in **Box 10**.

Box 10 – Implementation gaps

- 1. To allocate a certain percentage of 'sin tax' (e.g. tobacco) for health promotion budget.
- 2. To allocate more funds for fundamental research and consider a centralised trust fund for research [e.g. to propose an establishment of Nutrition Cluster under the National Institute of Health or through National Coordinating Committee for Food and Nutrition (NCCFN)].
- 3. To provide a population nutrition budget commensurate with NCDs burden and promote setting up of nutrition promotion budgets by other Ministries (e.g. Ministry of Agriculture and Agro-Based Industry Malaysia, Ministry of Domestic Trade, Co-operatives and Consumerism etc.)

Malaysia was rated as having <u>low</u> implementation on governance procedures to restrict commercial influences on policy development related to food environment (**GOVER1**). Robust registration of lobbyists and conflict of interest management were identified as the major gaps in



implementation in Malaysia, as compared to international best practice benchmarks (e.g. United States, Australia and New Zealand). Experts' comments/ perceptions towards the government for this indicator are listed in **Box 11**.

Box 11 - Comments or perceptions by the Experts

- 1. Lack of adherence to current local governance policies and lack of their stringent application, which does not contribute to transparent decision-making processes (when compared to international best practice benchmarks such as Lobbying Disclosure Act 1995 in United States).
- 2. To implement a system with relevant stakeholders (more than one person) making decisions.
- 3. Lack of enforcement on asset declaration.
- 4. To implement systems and processes in order to improve compliance.
- 5. To apply strict rules on lobbyists and conflict of interest management.

The low score for **GOVER1** could be attributed to insufficient documentation of existing policy and/ or lack of implementation based on the Experts' view. Therefore, continuously strengthening practice on restriction of commercial influences and increasing publicity for this good practice might potentially shift these perceptions and improve the scoring in the future.

The Experts rated <u>low</u> implementation for processes to assess health impacts during the development of non-food policies **(HiAP2)**. Several suggestions were proposed by the Experts including Health Impact Assessment (HIA) implementation and involvement of the health authority at the early stage of policy development.

			Infrastructure Support Component			
Rank		Indie	cators			
Highest	1	đ	Food-based dietary guidelines established and implemented (LEAD3)			
Ranking	2	al i	Monitoring of population nutritional status and intakes against targets (MONIT2)			
	3	al	Monitoring of NCDs' risk factors and prevalence (MONIT4)			
	4	al i	Population intake targets established for nutrients of concern and national recommended dietary intake (LEAD2)			
	5	al i	Comprehensive implementation plan linked to state and national needs (LEAD4)			
Medium	ranking	3	Not specified			
Lowest	6	đ	Sufficient population nutrition budget (FUND1)			
Ranking	7	al i	Funded research to improve food environment and reducing obesity and NCDs (FUND2)			
	8	al I	Processes to assess health impacts during development of non-food policies (HiAP2)			
	9	đ	Restriction on commercial influence in policy development (GOVER1)			
	10 A secure funding stream for statutory health promotion a					

Table 3 Prominent indicators as per 'Infrastructure Support' component

Note: Numbers in ranking are from the highest to lowest values.

Image: Low' implementation (26-50%)





3.3 Feedback on FEER Workshop

Out of the 45 participants who had attended the FEER Workshop, about two-thirds (n=30) submitted their feedback through a Google Form (<u>https://goo.gl/forms/s0M1bGklU64qhz323</u>). The feedback represented 17 Experts and 13 government stakeholders. Overall, majority (\geq 90%) indicated that the Workshop was well-paced, informative with understandable content and clear handouts supporting presentation materials, as well as well-prepared facilitators (**Figure 8**).

In general, all participants reported a better understanding of the food environment policy process in Malaysia. According to the feedback given, 9/10 Workshop participants were confident this engagement would improve Malaysian food environment policy process in the next 10 years. Most of the participants provided consent to facilitate, if required by the government, setting up proposed policy actions into agenda in the future. From a survey question regarding whether a 2-day rating Workshop was preferable, only two-thirds of the participants felt they would be able to attend such future workshops.



Figure 8 Participant feedbacks of FEER Workshop (n=30)





Table 4 indicates feedback comments from participants on the Workshop and suggestions to improve future Workshops.

Table 4 Comments about the FEER Workshop from participants (n=30)

 "The content of the Workshop was very informative/ Information was gained regarding national policy and policy data/ Comprehensive overview of the policy/ I can see the whole scenario of the nutrition policy and implementation in Malaysia" "Information given prior to programme/ well prepared document" "Time management/ organisers kept to the time/ cevery minute was counted and finished in time/ content. Well organised" "Voting system was very interactive/ interactive sessions" "Involvement of an expert group" "Engagement and update with the expert and obter agencies/ 2-way communication between the expert and government of many agencies/ interaction between the expert and government of ficials/ brainstorming session was great/ good discussion and involvement of many agencies/ interaction between the expert and government erpresentatives and government officials/ brainstorming session was great/ good discussion among all stakeholders" "I have not participated in a Workshop on food (policy) before and it was very interesting and refreshing to know what is and has been going on in Malaysia and the rest of the world. I appreciate all the information provided by the team. I can imagine the difficulty in getting all the information set ween to a set of the world. I appreciate all the information provided by the team. I can imagine the difficulty in getting all the information set of the world. I appreciate all the information provided by the team. I can imagine the difficulty in getting all the information " 	What did you like best about this Workshop?	What did you like least about the content of the Workshop?
njornation	 "The content of the Workshop was very informative/ Information was gained regarding national policy and policy data/ Comprehensive overview of the policy/ I can see the whole scenario of the nutrition policy and implementation in Malaysia" "Information given prior to programme/ well prepared document" "Time management/ organisers kept to the time/ every minute was counted and finished in time/ content. Well organised" "Voting system was very interactive/ interactive sessions" "Involvement of an expert group" "Engagement and update with the expert and other agencies/ 2-way communication between the expert and government of many agencies/ interaction between academic, NGO representatives and government officials/ brainstorming session was great/ good discussion among all stakeholders" "I have not participated in a Workshop on food (policy) before and it was very interesting and refreshing to know what is and has been going on in Malaysia and the rest of the world. I appreciate all the information provided by the team. I can imagine the difficulty in getting all the information" 	"Insufficient time for discussion/ fast pace and short discussion allocation/ limited time for better discussion/ not having time to discuss the important points deferred/ lack of time to discuss in depth" "Very packed sessions/ seem to be rushing, clearly a day isn't enough to discuss the key elements outlined/ the fast pace/ a bit rushed at times/ tightly packed agenda/ packed" "Food is part of Malaysian culture life all suggestions must also consider this point" "I wish all invited government agencies attended" "It should have been at least over 2 days" "Nothing/ None/ none at all"

FOOD-EPI 29



How can this Workshop be improved?

"Allocate more time for discussion. Maybe a 2-day Workshop/ make it 1.5 days/ extend more time to discuss/ a bit more time for debates would be good/ a 2-day Workshop might help/ more discussion time/ add another 2 hours/ maybe a bit of time given during the Workshop itself for us to re-read the information to refresh our memory before starting the discussion"

"All invited persons should turn up and participate in this Workshop/ there should be more participants from the government sector"

"Reduce the number of sub-indicators for deliberations"

"More solid evidence in supporting the proposal for the amendment of policy"

"Should the documents be given to the participants earlier/ provide the information about the workshop"- from the government point of view.

3.4 Policy Actions for Prioritisation

This section describes the framing of proposed policy actions to be prioritised by the Experts. A list of proposed policy actions for prioritisation by government were developed from the FEER Workshop.

Based on the second cycle of voting, Experts reached consensus on shortlisting 22 indicators to propose policy actions. An additional 7 indicators were identified for prioritised policy actions by the Research Team as these were not identified in the rating process, but deemed important to align to international best practice. Thirteen more indicators were identified as intentions and plans of the government to introduce policy actions, but needed to broaden their scopes. These 13 indicators were consolidated to formulate 4 proposed policy actions under the 'Support' group for the prioritisation process (Figure 9).

Out of 47 indicators rated by the Experts, 42 indicators were proposed with policy actions for prioritisation (**Figure 10**). Finally, 32 proposed policy actions were shortlisted by the Research Team (TK, BS and NSH) and forwarded to government stakeholders for feedback.

Appendix III summarises the list of proposed policy actions to be prioritised by the Experts.





Figure 9 Algorithm to construct the list of proposed policy actions for prioritisation process





Note: Refer to Figure 7 for simplified statements of indicators. *Orange colour cells represent indicators with <2/3 agreed for a discussion, but with proposed policy options suggested by the research teams.

Abbreviations: COMP=composition (food); FUND=funding; GOVER=governance; HIAP=health-in-all policies; INFFRA=infrastructure; LABEL=labelling (food); LEAD=leadership; MONIT=monitoring; PLATF=platforms; POL=policy; PRICES=prices (food); PROMO=promotion; PROV=provision (food); RETAIL=retail (food); SUP=support; TRADE=trade (food)

Figure 10 Consensus for proposed policy actions (Second vote)



3.4.1 Prioritisation by FEER Panel

At this stage, prioritisation excel files were sent via electronic mail to 26 Experts and within a 2-month duration, a 92.3% response rate (n=24) was recorded. In total, 32 proposed policy actions were rationalised into four categories based on the nature of policy actions and prioritised by the Experts. These categories were 'policy – POL', 'infrastructure – INFRA', 'further investigation – INVES' and 'support - SUP'. A maximum of 5 points for each proposed policy action per category were first assigned by the Research Team. Experts redistributed the points as per the terms of importance and achievability criteria. Points allocated as per importance and achievability criteria for each proposed policy action were combined to form an aggregated and unweighted score. As characteristics of each group (i.e. policy, infrastructure, further investigation and support) were to be considered, Experts were requested to weigh the total score as per importance and achievability criteria (either 50:50 or differently). Figure 11 indicates the unweighted and weighted total scores. Of note, although the order of policy actions was similar, the weighted total score could be further differentially ranked between Top 2 (SUP29-LABEL1) and Top 3 (POL5-PROMO1); and Top 7 (INVES27-RETAIL1) and Top 8 (INFRA14-MONIT3).

A total of 32 proposed policy actions prioritised by the Experts with 8 domains were ranked as Top 15 policy actions for the Malaysian government (**Figure 12**). Against relatively higher importance and higher achievability quadrants, 5 domains under 'policy' component and 3 domains under 'infrastructure support' component were prioritised by the Experts to formulate a policy package for the Malaysian government. The details are described in the sub-sections 3.5 and 3.6.





Order	Unweighted Rank	Unweighted Total Score		Weighted Rank	Weighted Total Score	Order
Top1	POL6-PROMO3	280.0	•>	POL6-PROMO3	140.3	Top1
Top2	POL5-PROMO1	279.0	•	SUP29-LABEL1	139.3	Top2
Top2	SUP29-LABEL1	279.0		POL5-PROMO1	139.2	Тор3
Top4	INFRA17-FUND2	274.0	•>	INFRA17-FUND2	137.3	Top4
Top5	POL4-LABEL4	267.0	•>	POL4-LABEL4	133.4	Top5
Торб	POL1-COMP1	266.0	•>	POL1-COMP1	132.8	Торб
Top7	INFRA14-MONIT3	265.0	•	INVES27-RETAIL1	132.6	Top7
Top7	INVES27-RETAIL1	265.0		INFRA14-MONIT3	132.3	Тор8
Top9	INFRA16-FUND1	263.0	•>	INFRA16-FUND1	131.5	Top9
Top10	INVES23-PROMO2	261.0	•>	INVES23-PROMO2	131.1	Top10
Top11	INVES21-COMP1	259.0	•>	INVES21-COMP1	129.4	Top11
Top12	POL7-PRICES2	256.0	••	POL7-PRICES2	128.8	Top12
Top13	INVES24-PRICES1	253.0	•>	INVES24-PRICES1	126.6	Top13
Top14	INFRA13-GOVER3	250.0	•>	INFRA13-GOVER3	125.1	Top14
Top15	INFRA18-FUND3	249.0	•>	INFRA18-FUND3	124.7	Top15
Top16	INFRA15-MONIT5	240.0	•>	INFRA15-MONIT5	120.4	Top16
Top17	INVES26-PROV1-4	236.0	•>	INVES26-PROV1-4	118.2	Top17
Top18	SUP31-MONIT1-2,4,6	232.0	•>	SUP31-MONIT1-2,4,6	115.4	Top18
Top19	INFRA12-GOVER3	230.0	•>	INFRA12-GOVER3	115.0	Top19
Top20	SUP32-PLATF1-4	229.0	•>	SUP32-PLATF1-4	114.6	Top20
Top21	INFRA11-GOVER2	227.0	•>	INFRA11-GOVER2	113.5	Top21
Top22	INFRA20-HIAP2	226.0	•>	INFRA20-HIAP2	113.2	Top22
Top23	INVES22-COMP2	226.0	•>	INVES22-COMP2	112.7	Top23
Top24	POL2-LABEL2	224.0	•>	POL2-LABEL2	112.2	Top24
Top25	INVES25-PRICES3-4	223.0	●>	INVES25-PRICES3-4	111.0	Top25
Top26	SUP30-LEAD1-5	220.0	•>	SUP30-LEAD1-5	110.0	Top26
Top27	POL3-LABEL3	216.0	●>	POL3-LABEL3	109.0	Top27
Top28	INFRA19-HIAP1	216.0	•>	INFRA19-HIAP1	107.7	Top28
Top29	INFRA10-GOVER1	200.0	●>	INFRA10-GOVER1	99.5	Top29
Тор30	INVEST28-TRADE2	197.0	●>	INVEST28-TRADE2	98.4	Top30
Top31	POL8-RETAIL4	190.0	●>	POL8-RETAIL4	94.1	Top31
Top32	POL9-TRADE1	182.0	•>	POL9-TRADE1	90.5	Top32

Note: The unweighted or weighted ranks combine abbreviations for both category and indicator. For example, POL9-TRADE1 represents the 9th proposed policy action by Experts and classified under 'policy' category, which relates to indicator 1 for food trade. For full interpretation of the abbreviations and the proposed policy action, please refer to Appendix III.

Abbreviations:

Category - INFFRA=infrastructure; INVES=investigation (further); POL=policy; SUP=support.

Indicator - COMP=composition (food); FUND=funding; GOVER=governance; HIAP=health-in-all policies; LABEL=labelling (food); LEAD=leadership; MONIT=monitoring; PLATF=platforms; PRICES=prices (food); PROMO=promotion; PROV=provision (food); RETAIL=retail (food); TRADE=trade (food)

Figure 11 Prioritisation of proposed policy actions as per weighted and unweighted scores





Figure 12 Scatter plot of proposed actions as per importance and achievability criteria





3.5 Policy Component: Recommendations for Government

Five domains were considered as high importance and high achievability policy actions under the 'policy' component, which are desirable for government adoption. The recommendations prioritised by the Experts were focused mainly on unhealthy foods except affordability of healthy foods. This consensus was made after in consideration of available policies for healthy foods availability and accessibility through farmers' market, fresh fruit stalls (GBSS), *Kedai Rakyat Agrobazaar, AgroBazaar Rakyat 1Malaysia, MyFarm* outlets and etc. Details are discussed in the following subsections.

3.5.1 Food Promotion



The Experts set the most important and achievable action **(TOP 1)** for the government **to enact a policy to restrict unhealthy food and beverage marketing, including sponsored education, sports and cultural activities in children's settings.** International best practice benchmarks indicated that at least 4 countries worldwide (Chile, Spain, Uruguay and Hungary) implemented mandatory laws in this area (World Cancer Research Fund 2017a). For example, Hungary required only external organisations and consultants recommended by the National Institute for Health Development to carry out health promotion and prevention activities in schools. The Experts' comment was to adopt a similar approach as the *Framework Convention on Tobacco Control* for restricting unhealthy food promotion to children. As well, the role of Ministry of Education was emphasised as a means to achieve this target in schools through consumer rights.

At this time, the creation of regulations to restrict the exposure and power of broadcast promotions for unhealthy food and beverages to children (TOP 3) was viewed as more critical by the Experts, when compared to investigating policy options (e.g. regulation) to restrict non-broadcast marketing (TOP 10). This might be attributed to extensive international and national studies covering the exposure and power of unhealthy food marketing in broadcast media, particularly television, demonstrating the association between viewing time and preference for unhealthy foods (Karupaiah et al. 2008; Kelly et al. 2016; Ng et al. 2014, 2015; WHO 2012).

Over the past decade, more countries such as Sweden (2010), South Korea (2010), Chile (2012), Ireland (2013), Mexico (2014) and Taiwan (2016) have implemented regulations to control unhealthy food marketing to children (World Cancer Research Fund 2017a). In order to achieve restriction on 'power' and 'exposure' of unhealthy food promotion, special attention should be placed on defining age of children (e.g. below the age of 12 in Sweden), controlled period (e.g. peak viewing time as 5-7pm in South Korea), criteria for restricted foods (e.g. added sugar >10%, fats >30% and saturated fat >10% of total calorie content, sodium >400mg/serving in Taiwan) and types of strategies (e.g. cartoons, animations and toys ban in Chile). In consideration of complex and unique food promotion techniques used in non-broadcast media (e.g. internet social media marketing, outdoor advertising, etc.), further investigations are required to identify types of media with the most influence to children and formulate appropriate policy actions to control unhealthy food promotion.



3.5.2 Food Labelling



All Experts supported the implementation of the planned regulations on mandatory nutrition labelling for including sodium and total sugar, and quantitative ingredient declarations, but also demanded to include added sugars in the nutrient label (TOP2). With this consensus achieved in food labelling, this should be used to foster agenda-setting for the policy development as evidenced by good support from the representatives of NGOs and academia.

Added sugar is defined as sugars either added during the processing of foods or are packaged as such, which should distinguish natural sugar content in the product, when compared to 'total sugar' labelling.

The logic behind advocating this adoption was related to excessive added sugar intake (>10% total daily calories), which would more likely lead to difficulty in achieving dietary fibre and essential vitamins and minerals, within individual energy requirements. In order to make informed choice easier for consumers, the United States updated rules to include added sugars on the label (FDA 2017).

An Expert suggested to amend this policy statement to also include trans-fat and saturated fat as mandatory nutrition labelling. Perhaps, this suggestion should be considered from both public health (i.e. informed choice) and economic benefits (i.e. trade opportunities) from its implementation. For example, the forecasted sales of packaged food retailing in Malaysia is expected to reach USD 11.327 billion in 2017 (Canadean 2014). Therefore, capturing new markets through trade liberalisation is critical. If mandatory labelling for total sugar, sodium, saturated fat and trans-fat is implemented in Malaysia, this will enable nutrition labelling standards to be in line with other countries in Asia such as Hong Kong (Centre for Food Safety 2017), Taiwan (FDA 2014a) and South Korea (Ministry of Food and Drug Safety 2017), which will further reduce barriers to trade and increase trade opportunities to these countries.

In addition to nutrition labelling on food products, the government should require all fast food chain outlets (>20 outlets nationally) to display calorie labelling on menu boards and promote their use in other food outlets (e.g. mamak stalls) (Top 5). Evidence on the impact of menu labelling on influencing calorie intake of the public is not conclusive (Elbel et al. 2013; Krieger et al. 2013; NSW Food Authority 2013), but menu reformulation was observed as a modest improvement for all entrées at sit-down chains such as reduction in energy, saturated fat, and sodium content when menu board labelling was implemented (Bruemmer et al. 2012). Long-term impact of menu board labelling should be an ongoing research to establish benefits. Therefore, action should be implemented based on the immediate outcome of promoting menu reformulation and adapting establishment cut-offs to determine which fast food chains are to be covered. This approach is in line with other international best practice benchmarks in South Korea (≥100 establishments), United States (≥20 establishments) and Australia (≥20 establishments) (World Cancer Research Fund 2017c). In consideration of local context, eating-out choices might include other local chain food outlets (e.g. mamak stalls). Hence, broadening implementation of menu board labelling to this sector might bring advantages. However, some Experts expected potential obstacles to implementation of the policy action in these local chain food outlets. Therefore, continuation of promoting menu board labelling in other food outlets, especially chain outlets should be a continuous effort lead by the government.





3.5.3 Food Composition



An advocacy to government was related to **setting up sodium targets for selected food groups** and was ranked as a priority policy action **(Top 6)** by the Experts. This proposal is in line with the international best practice benchmarks implemented in Argentina (from 2014) and South Africa (from 2013), of which the common practice for the benchmarks was the adoption of mandatory targets via regulations (World Cancer Research Fund 2017d).

To be noted, a modest industry progress was observed through voluntary and category-specific sodium targets initiative such as the *National Salt Reduction Initiative 2009* (NSRI) in United States (World Cancer Research Fund 2017d). NSRI was not initiated by the US federal government, but founded as a coalition of >100 national health organisations and 70 state and local health authorities.

The determinant factors of NSRI progress rely on a framework of food category targets combined with a robust monitoring system (Curtis et al. 2017). In addition, special attention was advised by the Expert to focus on "selected foods" that are well defined to food groups commonly consumed by populations, for which NSRI set sodium targets for 62 packaged foods and 25 restaurant food categories.

A cost-effectiveness analysis was conducted to model potential health and economic impacts of salty policy in South Africa. Findings indicated a salty policy could cost USD 0.01 per capita and exert a potential risk for reformulation costs passed on to the consumers with <0.2% increase in food expenditure in all income quintiles. However, in comparison to huge health gains such as reducing cardiovascular mortality by 11% and saving USD 51.25 million (i.e. USD 2.52 per capita/ year) in healthcare subsidies, this policy would lead overall to large government savings on health care (Watkins et al. 2016).

Initiative in this area should not be viewed as barriers to trade for food industries. For example, US Food and Drug Administration (FDA) drafted voluntary federal sodium targets in June 2016. It covers 16 major food categories of commercially processed, packaged and prepared foods such as cereal, dairy, bakery products, sauces and condiments etc. Baselines were calculated using product nutrition information from commercially available databases and public websites, which later FDA specified short- and long-term targets with upper bound sodium content. In fact, food companies such as Nestle US and Mars Inc. welcomed and supported this draft for sodium reduction (Mars Inc. 2016; Nestle USA 2016).

Furthermore, the Experts encouraged the government to investigate food composition standards for selected food groups such as added sugar and saturated fats (Top 11). An Expert's comment was to include trans-fat standard for processed foods in the future. However, further research is warranted to determine feasibility, capacity and cost-effectiveness of expanding food composition standards to other nutrients of concern by taking into account the local context in Malaysia.



3.5.4 Food Retail



The Experts acknowledged the intention of the government to restrict operating hours up to 12 midnight for all food outlets. Therefore, the Experts recommended the government to first investigate the restrictions on the opening hours of fast food restaurants (e.g. amendment on the Licensing of Food Establishment By-Laws) and seek opportunities to restrict the placement of new fast food outlets around schools and in residential areas (Top 7). This recommendation was rated as higher importance and higher achievability by the Experts, and the scope is in line with robust zoning laws and policies that are implemented in 15 local authorities in United Kingdom (World Cancer Research Fund 2017b).

Notably, national studies to support the policy development in this area is scarce, followed by a lack of existing infrastructure and identifying pre-existing barriers (e.g. insufficient human capacity, different management system for each local government and income reduction from licensing fees), which warrant further investigation to formulate an appropriate approach, even though there is a 'Guideline on the Prohibition of Sales of Foods Outside School Perimeters'. From a technical viewpoint, hot food takeaways act as a double-edged sword. They contribute service to local communities, employment and a source of economic development, but displace other shops and food options to promote accessibility to healthy and fresh food, which can impact health of communities. Perhaps, a learning experience from the international best practice benchmark - "Supplementary Planning Document" or planning policy for hot food takeaways implemented by St. Helens Council (2011) and the Halton Borough Council (2012) should provide additional insights for planning a policy action in this area.

A problem recognition that fast food takeaways are a source of cheap, energy-dense and nutrient-poor foods (Prentice & Jebb 2003) as well as highlighting the needs to address the rising numbers of fast foods (The Health Committee 2009) should form the foundation of this policy action. Cited justifications could be opening hours for take-away foods, impact on residential amenity (e.g. noise, vibrations, odour, traffic disturbance, litter, etc.), existence of schools and potential benefits of the proposal for the wider community, etc. Perhaps, by demonstrating food outlets that are in close proximity to surrounding schools form an obstacle to healthy eating for school children (Sinclair & Winkler 2008), might further justify the establishment of policy to restrict placement of fast food outlets around the school.

In addition, crime and anti-social behaviour impact of opening fast food outlets could be applied to champion policy development in this area (Halton Borough Council 2012; St. Helens Council 2011). The rationale behind this proposal is hot food takeaways might often attract a gathering of people. Therefore, establishing evidence to associate these outlets with 'hot spots' for crime and disorder, especially at night time might further accelerate the importance to develop policy in this area.

Overall, integrating justifications listed above will triangulate arguments presented to relevant stakeholders to advocate policy development and implementation. Specific aspects related to location of the fast food outlets such as not >5% of the units within the city centre or not >2 being located adjacent to each other with priority to first identify an exclusion zone (St. Helen Council 2011) might be relevant to promote flexibility in policy development and realistic implementation.





3.5.5 Food Prices



Taxes on sugary drinks and high caloric density foods were implemented in Mexico. In line with this global trend, this fiscal policy recommended by the Experts was to **introduce taxes on sugary drinks with the funding raised applied to promoting healthy diets for children (Top 12)**. This policy recommendation to the government is not new, as previously the Academy of Sciences Malaysia had suggested this action in 2013 (ASM 2013) and discussed at the Ministerial level. Therefore, to accelerate policy development in this area, an Expert's comment highlighted the urgency to rethink "how to implement sugar tax in Malaysia as carbonated drinks are getting cheaper (one ringgit per bottle) and almost matching the price of drinking water".

The straightforward thinking is, "Will taxes on sugary beverages translate into lower consumption in the population?" Evidence from Mexico indicates purchase of taxed beverages fell an additional 4.2% to 9.7% in 2015. Households at the lowest socioeconomic level showed the largest decreases in purchase of taxed beverages, accounting for a 14.3% decrease in 2015 (Colchero et al. 2017).

If socioeconomic impact is a concern, a null effect of policy development as per evidence from the Mexican experience should be a guide. Post-implementation of sugary beverage tax did not reduce total employment in manufacturing sector, commercial stores and increase unemployment rates in Mexico (National Institute of Public Health 2017). Market adjustment might contribute to this phenomenon as a significant increase in sales for plain waters after implementation of sugary beverage tax was observed (Colchero et al. 2016). As lower income consumers are more responsive to price increases, this should benefit their health outcomes and the costs of health care for NCDs burdens (Global Food Research Programme 2016). The Experts emphasised on transparency in channelling revenue raised and suggested to use as a promotion of healthy diets for children, might provide an additional benefit and increase acceptability by the population.

The practice of goods service tax (GST) exemption for fruits and vegetables is in line with international best practice – Australia. This added value policy should continue to encourage healthy food choices in Malaysia. Any effort by the government to preserve this good practice should be encouraged as evidenced by ceasing the implementation of GST on 60 food items (e.g. corn, frozen vegetables and imported fruits like avocados, apricots, figs, grapes, nectarines, cherries, and berries), despite been gazetted on 6th June 2017 (Jabatan Kastam Diraja Malaysia 2017). Acknowledging possible factors influencing price increment for fresh fruits and vegetables, to better improve policy implementation in this area, the Experts prioritised a policy action to first investigate price rise for fruits and vegetables and to identify if there are any potential fiscal policies to address this increment (Top 13).

The main justification for this action was related to observable increment on prices for fruits and vegetables in Malaysia. Similar observation and potential factors contributing to this increment were discussed in the recent report published by Khazanah Research Institute (2016). The report estimated minimum daily cost of a nutritious diet based on Malaysian Dietary Guidelines for a household in Kuala Lumpur. This was RM 28.43/ household/ day or equivalent or RM 5.69/ person/ day for home-cooked foods with just three main meals. If this calculation is translated to household expenditure, it would have accounted for 29.0% (RM 852.90/ month) of the national median household expenditure in 2014 (RM 2946/month). Ironically, such a nutritious diet was estimated to cost almost all the income of a family living below poverty line.



3.6 Infrastructure Support Component: Recommendations for Government

On the other hand, three domains under the 'infrastructure support' component were prioritised by the Experts. The subsections below discuss on Experts' comments related to this component.

3.6.1 Funding and Resources



To ensure sustainable development of planned policies and programmes, the Experts prioritised 3 policy actions from indicators under the funding and resources domain in the list of top 15 actions. For example, the government should **continue to designate the reduction in obesity and diet-related NCDs and their inequalities as a priority area for research in a coordinated way across its research funding mechanisms of different agencies (Top 4)**. It will be crucial to optimise the role of *Jawatankuasa Pelaburan Dana Awam* which aims to consolidate government funded research from various agencies, those targeting to improve food environments, reducing obesity, NCDs and their related inequalities in order to maximise benefit of existing resources.

A measure to coordinate existing research funding mechanisms is crucial as this will ensure sufficient funds are invested to address gaps in knowledge. However, an Expert's comment highlighted that lack of political will to increase the funding for health, might hinder this action. Therefore, specifying the scope of funding to cover efforts to reduce obesity, diet-related NCDs and their inequalities via the population nutrition approach is imperative. During the data collection period for Food-EPI, short falls in research budget allocations for targeting food environments, reducing obesity, NCDs and their related inequalities were recorded for all agencies, including the Ministry of Health. However, during the preparation of this Technical Report, it is indeed an encouraging update from the Economic Planning Unit, Prime Minister's Department that the government is committed to constantly allocated RM 5 million in 2017 to the Ministry of Health for the study and research specifically in reducing the NCDs incidence among Malaysians as per the Eleventh Malaysia Plan (2016-2020).

In addition, the Experts suggested the government to substantially increase funding specific for population nutrition promotion, so that it is commensurate with size of the population health burden from unhealthy diets (Top 9). Notably, existing public health expenditure also covers population nutrition expenditure (i.e. in combination of budgets allocated to smoking cessation, dengue, etc.), which prevents an estimation of the true budget allocation for population nutrition promotion in Malaysia. However, Experts emphasised that the budget should be commensurate with the disease profile or health burden from unhealthy diets. Perhaps, referring to Thailand as the international best practice benchmark would guide this area of policy development. For example, total expenditure on health related to nutrition in Thailand was recorded as RM 2957 million in 2011, which was equivalent to 7.57% of total health expenditure with dietary risk factors accounting for 10% loss to health.

The Malaysian Health Promotion Board (MySihat) is the statutory health promotion agency. Notably, the economic slowdown over the past three years impacted the budget allocation for MySihat. This was evident for the estimated reduction to RM 0.06 million in 2016 related to dietary health promotion grants funded by MySihat. This explains the rationale of the prioritisation action by the Experts on strengthening the sustainable funding and functioning of MySihat so that it becomes a significant force for health promotion (similar to ThaiHealth and VicHealth) (Top 15).





3.6.2 Monitoring and Intelligence



Routine monitoring of anthropometric measurements (twice annually) was conducted for children aged 10-17 years old under the *National Physical Fitness Standard* (SEGAK). Overall, the Experts recognised the extensive efforts in conducting SEGAK, but they identified the gap in implementation as "not dispersed or utilised maximally" relating to the collected dataset. Therefore, the Experts advised to optimise usage of the existing system (e.g. collating and analysing SEGAK data) by ensuring appropriate feedback to parents and school management (Top 8). Furthermore, a referral mechanism for identified cases to the nearest health clinic should be strengthened as well as provide the follow-up of these cases.

3.6.3 Transparency in Governance



In comparison with Australia and New Zealand, the Freedom of Information Act and the degree of transparency when engaging stakeholders in developing new standards (i.e. open to everyone in the community) are the limitations in Malaysia. Therefore, the Experts advocated to continuously strengthen access to information related to public consultation (Top 14). For example, the policy action to advocate and improve 'seranta awam' website to be more user friendly, interactive and provide open access for submissions by the main affected parties (e.g. non-governmental organisations, academia/ professional/ public and industry) was prioritised in the governance domain.

Perhaps, mechanisms of public consultation applied by the US FDA in developing the labelling regulations for added sugar might provide additional guidance to improve this domain. For instance, letters or comments submitted by industry, NGOs, etc., and the recording as well as transcript for FDA Nutrition Food Label Public Meeting were disseminated through open access to all (FDA 2014b, 2015).











4.0 Policy Package for Government

To achieve the United Nation's goal of reducing premature mortality from NCDs to 25% by 2025, actions by government and stakeholders are necessary to reduce consumption of unhealthy foods and promote availability as well as access to healthy foods through prioritisation of strategic policies. These prioritised policy actions will serve to regulate the food environment enough to prevent obesity and NCDs. The top 5 policy actions recommended by the Expert Panel are listed below:

Top 1	To enact a policy to restrict unhealthy food and beverage marketing in children's settings (including sponsored education).
Top 2	To support the implementation of the planned regulations on mandatory nutrition labelling (sodium, total sugar) and quantitative ingredient declarations, and also include added sugars on the nutrient label.
Тор 3	To implement regulations to restrict the power and exposure of broadcast promotions for unhealthy food and beverages to children.
Top 4	To continue to designate the reduction in obesity and diet-related NCDs and their inequalities as a priority area for research and to provide funding commensurate with this prioritisation across different government agencies.
Top 5	To require all chain fast food outlets (>20 outlets nationally) display calorie labelling on menu boards and promote their use in other food outlets (e.g. <i>mamak</i> stalls).

Figure 1 maps out the overarching domains prioritised by the Experts to improve the gaps in implementation of food environment policies in Malaysia. This mapping is suitable to be adapted by various agencies (professional bodies, NGOs and policy makers) to advocate effective policies in order to address the burdens of obesity and NCDs.

The Food-EPI evaluation found that the government of Malaysia is doing moderately well for selected policy domains. The output of the Food-EPI process will provide a baseline benchmark for future government progress in this area as well as for any new policies to be introduced. This Food-EPI process carried out for the first time in Malaysia, brought together government stakeholders, public health experts, scientists, health professionals and civil society together to deliberate on the key issues involved in fostering a healthy food environment.







Appendix I: Approval Letters



UNIT PERANCANG EKONOMI Economic Planning Unit Jabatan Perdana Menteri Prime Minister's Department Block B5 & B6 Pusat Pentadbiran Kerajaan Persekutuan 62502 PUTRAJAYA MALAYSIA



Ruj. Tuan: *Your Ref.:*

Ruj. Kami: Our Ref.: (18) UPE (S) 25/100/ 371/23

Tarikh: Date: 29 October 2015



Prof. Madya. Dr. Tilakavati a/p Karupaiah, APD, AN School of Healthcare Sciences Faculty of Health Science Universiti Kebangsaan Malaysia Jalan Raja Muda Abdul Aziz 50300 Kuala Lumpur.

Fax: 03-2694 7621

Dear Madam,

International Development Research Centre (IDRC) Funded Project on – Mapping the Extent of Implementation of Priority Food Environment Policies to Tackle Diet-Related Non-Communicable Diseases in South-East Asia: Comparison Between Three Countries

We wish to refer to your letter dated 29 September 2015.

2. After reviewing the matter and your research proposal, we are pleased to inform that the Economic Planning Unit (EPU) has no objection to the above mentioned project. EPU acknowledges that the project is going to be funded by IDRC grant and as such, we hereby record our appreciation for their support. We hope that this project will be of benefit to Malaysia, particularly as input to the policy review of Malaysia's nutrition policy.

3. Kindly report on the outcome of this project once it is completed. Your cooperation in this matter is highly appreciated.

Thank you.

Yours sinderely

(NOOR LUNAR MD. SALLEH) for Director General Economic Planning Unit Prime Minister's Department

"Merancang Ke Arah Kecemerlangan"







UNIT PERANCANG EKONOMI Economic Planning Unit Jabatan Perdana Menteri Prime Minister's Department Block B5 & B6 Pusat Pentadbiran Kerajaan Persekutuan 62502 PUTRAJAYA MALAYSIA



Ruj. Tuan: Your Ref.:

Ruj. Kami:

Our Ref.:

UPE (S) 25/100/371/23 Jld. 2

Tarikh: Date:

2 September 2017

Prof. Madya Dr. Tilakavati A/P Karupiah Pensyarah Kanan Program Sains Pemakanan & Dietetik Fakulti Sains Kesihatan Universiti Kebangsaan Malaysia (UKM) Jalan Raja Muda Abdul Aziz 50300 KUALA LUMPUR

Faks: 03-2694 7621

YBrs. Prof. Madya Dr.,

TECHNICAL REPORT SUBMISSION ON THE INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC), CANADA FUNDED PROJECT: FOOD-ENVIRONMENT POLICY INDEX (FOOD-EPI) MALAYSIA

Dengan hormatnya saya merujuk kepada perkara tersebut di atas dan surat Universiti Kebangsaan Malaysia (UKM) bertarikh 7 Ogos 2017 adalah berkaitan.

2. Adalah dimaklumkan bahawa Unit Perancang Ekonomi, Jabatan Perdana Menteri (UPE,JPM) tiada halangan ke atas cadangan pihak UKM untuk menerbitkan laporan kajian tersebut serta menyampaikan hasil penemuan laporan di persidangan akademik yang diadakan di dalam dan luar negara.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

and my my

(ASHIKIN BIN I ABDUL RAZAK) b.p. Ketua Pengarah Unit Perancang Ekonomi Jabatan Perdana Menteri ☆: 03-8872 3337 ਛ: 03-8888 3876 ⊠: ashikin@epu.gov.my

"Merancang Ke Arah Kecemerlangan"





48

URUSETIA NIH Secretariat National Institutes of Health (NIH) KEMENTERIAN KESIHATAN MALAYSIA d/a Institut Pengurusan Kesihatan Jalan Rumah Sakit, Bangsar 59000 KUALA LUMPUR



Tel.: 03-2287 4032/2282 0491/2282 9085 03-2282 9082/2282 1402/2282 1449 Faks: 03-2282 8072

Ruj.Kami: KKM/NIHSEC/800-4/4/1 Jld. 49(54) Tarikh : 26 September 2017

Prof. Dr Tilakavati Karupaiah Fakulti Sains Kesihatan Univeriti Kebangsaan Malaysia

Tuan,

KELULUSAN UNTUK MENERBITKAN LAPORAN

Dengan hormatnya saya merujuk perkara di atas.

 Sukacita dimaklumkan bahawa Ketua Pengarah Kesihatan Malaysia telah meluluskan permohonan Tuan yang bertajuk:

"Food-Environment Policy Index (Food-EPI): Benchmarking Of, and Priorities For, Food Environment Policy For The Malaysian Government"

3. Sehubungan dengan itu, sesalinan penerbitan tersebut hendaklah dikemukakan kepada Urusetia NIH sebaik sahaja ianya diterbitkan.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(MOHD IDRIS BIN OMAR) b.p Pengarah Urusetia NIH Kementerian Kesihatan Malaysia





Appendix II: List of Government Stakeholders Engaged

Ministry/ Departments	/ Agency	Corresponding Indicators		
Association of Accredite	ed Advertising Agents Malaysia (4As)	PROMO1		
Community Developme	nt Department (KEMAS)	PROV1, PROV3		
Department of Social W	/elfare (JKM)	PROV1-3, MONIT1		
Department of National	Unity & Integration (JPNIN),	PROV1, PROV3, MONIT1,		
Prime Minister's Depart	ment			
Department of Statistics	s Malaysia	PRICES1		
Economic Planning Unit	, Prime Minister's Department	Advised to obtain supports from		
Manufacturing Group (- Manufactures Malaysian Food - MM MAFMAG)	PROMOT		
Film Censorship Board (LPF)	PROMO1		
Malaysian Prison Depar	tment	Rejected to participate as		
		overwhelming research projects at		
		the point of engagement.		
Ministry of Agriculture	Strategic Planning and Policy Division	PRICES3, TRADE1-2		
and Agro-Based Industry	Crop, Livestock and Fishery Industries Division	RETAIL3		
	Paddy and Rice Industry Division	PRICES3		
	Unit Azam Tani	PRICES4		
	Department of Agriculture	PRICES3 - 4		
	Urban Farming Division	PRICES4		
	Federal Agricultural Marketing Authority (FAMA)	PRICES3, RETAIL2-3		
	Malaysian Agricultural Research and Development Institute (MARDI)	PRICES3		
Ministry of Communications and	Strategic Development Division, Department of Broadcasting (RTM)	PROMO1		
Multimedia Malaysia	Strategic Communication Division, Malaysian Communications and Multimedia Commission	PROMO1, PROMO2		
Ministry of Education	School Management Division (Preschool and School)	PRICES4, PROV1, PROV3, MONIT1, MONIT5		
	Fully Residential and Excellent Schools Management Division	PROV1, PROV3, MONIT1		
Ministry of Finance		Rejected to participate and required official letter to be issued by Ministry of Higher Education.		
Ministry of Domestic	Policy and Strategic Planning Division	PRICES1, PRICES3		
Trade, Co-operatives	Franchise Division	RETAIL1		
and Consumerism	Domestic Trade Division	PRICES3		
	National Price Council	PRICES1, MONIT1		





Ministry/ Departments	/ Agency	Corresponding Indicators		
Ministry of Health	Nutrition Division	COMP1-2, LABEL1, LABEL3-4, PROMO1-3, PRICES1-4, PROV1-4, RETAIL1-2, RETAIL4, TRADE1-2, LEAD1-5, GOVER1-2, GOVER4, MONIT1-2, MONIT6, FUND1, PLATF1-3, HIAP1-2		
	Disease Control Division	COMP1, PROV1-4, RETAIL1, LEAD1, LEAD4, MONIT1, MONIT4-5, FUND1, PLATF1, PLATF3, HiAP1		
	Health Education Division	FUND1		
	Malaysian Health Promotion Board	FUND3, PLATF3		
	Family Health and Development Division	MONIT3,		
	Food Safety and Quality Division	LABEL1, LABEL2, RETAIL4, TRADE1, GOVER2-3,		
	National Institute of Health	FUND2		
	Institute for Public Health	COMP1, LABEL4, PROMO1, MONIT2-6, FUND2		
	Institute for Health Systems Research	MONIT5		
	Policy and International Relations Division	TRADE1-2		
	Account Department (Deputy Director General - Public Health)	FUND1		
Ministry of Higher Education	Research Management Unit	FUND2		
Ministry of International Trade and Industry	Sectoral Policy Division	TRADE1-2		
Ministry of Plantations Industries and Commodities	Malaysian Palm Oil Board (MPOB)	COMP1		
Ministry of Science, Technology and Innovation	Fund Division	FUND2		
Ministry of Urban Wellbeing, Housing and Local Government	Local Government Department	RETAIL1-2		
PERMATA Division, Prim	ne Minister's Department (PMD)	PROV1, PROV3, MONIT1,		
Royal Malaysian Custon	ns Department	PRICES1, PRICES2,		





Appendix III: Statements of Proposed Policy Actions

Group	No	Indicator	Code	Statement of Proposed Policy Action
Policy (POL)	1	COMP1	POL1-COMP1	The government should set sodium targets for selected food groups.
Policy (POL)	2	LABEL2	POL2-LABEL2	The government should create an additional nutrient profiling criterion making nutrient claims to ensure unhealthy foods high in fat, sugar and salt are not permitted to make nutrient claims.
Policy (POL)	3	LABEL3	POL3-LABEL3	The government should set robust criteria to be implemented in stages for nutrients of concern for interpretive front of pack label systems for processed foods [including those manufactured by small and medium enterprises (SMEs)].
Policy (POL)	4	LABEL4	POL4-LABEL4	The government should require all chain fast food outlets (>20 outlets nationally) to display calorie labelling on menu boards and promotes their use in other food outlets (e.g. <i>mamak</i> stalls).
Policy (POL)	5	PROMO1	POL5-PROMO1	The government should create regulations to restrict the exposure and power of broadcast promotions for unhealthy food and beverages to children.
Policy (POL)	6	PROMO3	POL6-PROMO3	The government should enact a policy to restrict unhealthy food and beverage marketing (including sponsored education, sports and cultural activities) in children's settings.
Policy (POL)	7	PRICES2	POL7-PRICES2	The government should introduce taxes on sugary drinks with the funding raised applied to promoting healthy diets for children.
Policy (POL)	8	RETAIL4	POL8-RETAIL4	The government should strengthen the nutrition components of the <i>"Bersih, Selamat & Sihat - BeSS"</i> programme and considers providing reductions in renewal of license fees for active participants.





Group	No	Indicator	Code	Statement of Proposed Policy Action
Policy (POL)	9	TRADE1	POL9-TRADE1	The government should identify opportunities to strengthen the health impact component (specifically nutrition) of the National Impact Assessment, improve domestic regulations by applying nutrition standards or through health certification control the import of non-nutritious foods in order to minimise the negative impact of trade agreements on population nutrition and health.
Infrastructure (INFRA)	10	GOVER1	INFRA10- GOVER1	The government should continuously strengthen conflicts of interest management for food industry engagement with policy development (e.g. instituting a lobby register) and among government officials (e.g. enacting the Political Donations and Expenditure Act and enforcing asset declarations for all staff).
Infrastructure (INFRA)	11	GOVER2	INFRA11- GOVER2	The government should continuously strengthen and capacity building on Regulatory Impact Statement (RIS) preparation by focusing on evidence-based approaches derived from public health perspective for policies which carry health implications.
Infrastructure (INFRA)	12	GOVER3	INFRA12- GOVER3	The government should continuously strengthen transparency of policy development (e.g. fully implementing the Guideline on Public Consultation Procedures).
Infrastructure (INFRA)	13	GOVER3	INFRA13- GOVER3	The government should continuously strengthen access to information related to public consultation (e.g. advocate and improve 'seranta awam' website to be more user friendly, interactive and open access for submissions by the main affected parties (e.g. non-governmental organisations, academia/ professional/ public and industry).





Group	No	Indicator	Code	Statement of Proposed Policy Action
Infrastructure (INFRA)	14	MONIT3	INFRA14- MONIT3	The government should optimise usage of the existing system (e.g. collating and analysing the National Physical Fitness Standard - SEGAK data for children aged 10-17 years old) by ensuring appropriate feedback to parents and school management, strengthen referral mechanism for identified cases to the nearest health clinic as well as provide the follow-up of these cases.
Infrastructure (INFRA)	15	MONIT5	INFRA15- MONIT5	The government should ensure sufficient resources (at least 5-10% of programme funding) and capacity building on evaluation of major programmes and policies related to nutrition and health plans.
Infrastructure (INFRA)	16	FUND1	INFRA16- FUND1	The government should substantially increase funding specific for population nutrition promotion so that it is commensurate with size of the population health burden that unhealthy diet creates.
Infrastructure (INFRA)	17	FUND2	INFRA17- FUND2	The government should continue to designate the reduction in obesity and diet- related NCDs and their inequalities as a priority area for research in a coordinated way across its research funding mechanisms by different agencies.
Infrastructure (INFRA)	18	FUND3	INFRA18- FUND3	The government should strengthen the sustainable funding and functioning of MySihat so that it becomes a significant force for health promotion (similar to ThaiHealth and VicHealth).
Infrastructure (INFRA)	19	HIAP1	INFRA19-HIAP1	The government ensures that nutrition impacts are taken into account through Ministry of Agriculture and Agro-Based Industry (MOA) focusing on production of basic food supply based on population needs and demand, as well as relevant Ministries supporting the food and nutrition-related policies by Ministry of Health.





Group	No	Indicator	Code	Statement of Proposed Policy Action
Infrastructure (INFRA)	20	HIAP2	INFRA20-HIAP2	The government ensures that health (broadly defined to encompass obesity and diet-related NCDs) impacts are taken into account in non-food policies using the existing platforms (e.g. Technical Working Group of Nutrition Policy), especially within urban planning and land zoning policies.
Further Investigation (INVES)	21	COMP1	INVES21- COMP1	The government should investigate food composition standards in selected food groups for added sugar and saturated fats.
Further Investigation (INVES)	22	COMP2	INVES22- COMP2	The government should conduct situational analyses of the Top 10 popular out-of-home meals (which includes <i>mamak</i> , hawker stands, fast food outlets etc.) and collect food samples, food composition analyses and recipe construction to identify key ingredients relating to total fat, sugar and salt in order to influence the composition of foods towards healthier profiles.
Further Investigation (INVES)	23	PROMO2	INVES23- PROMO2	The government should investigate policy options (e.g. regulation) to restrict non- broadcast marketing of unhealthy food and beverages to children.
Further Investigation (INVES)	24	PRICES1	INVES24- PRICES1	The government should investigate the price rises in fruits and vegetables and identify potential fiscal policies to address this increment.
Further Investigation (INVES)	25	PRICES3-4	INVES25- PRICES3-4	The government should investigate policy options to provide healthy foods (e.g. food coupon as part of <i>Bantuan Rakyat 1Malaysia</i> (BR1M) for fresh fruits and vegetables, high fibre foods such as wholegrain products, low fat, sugar and sodium foods) to vulnerable groups including urban poor.
Further Investigation (INVES)	26	PROV1-4	INVES26- PROV1-4	The government should measure the degree of implementation and reach of its various policies and programmes to support the provision of healthy food in ECEs/ schools and other public and private sector organisations.





Group	No	Indicator	Code	Statement of Proposed Policy Action
Further Investigation (INVES)	27	RETAIL1	INVES27- RETAIL1	The government should investigate the restrictions on the opening hours of fast food restaurants (e.g. amendment on the Licensing of Food Establishment By-Laws) and seek for opportunities to restrict the placement of new fast food outlets around schools and in residential areas.
Further Investigation (INVES)	28	TRADE2	INVEST28- TRADE2	The government should investigate the opportunities to ensure that the provisions are in place in trade investment analysis (TIAs) to protect the policy space for food and nutrition-related policies.
Support (SUP)	29	LABEL1	SUP29-LABEL1	We support the implementation of the planned regulations on mandatory nutrition labelling (sodium and total sugar) and quantitative ingredient declarations, but to include added sugars in the nutrient label.
Support (SUP)	30	LEAD1-5	SUP30-LEAD1-5	We support the implementation of the planned food policies, announced funding for nutrition programmes, and nutrition targets (in particular to the vulnerable groups including urban poor).
Support (SUP)	31	MONIT1-2, 4, & 6	SUP31- MONIT1-2,4,6	We support to maintain and expand its programme of monitoring food environments and population nutrition with particular attention to representing vulnerable groups including the urban poor.
Support (SUP)	32	PLATF1-4	SUP32- PLATF1-4	We support to continue ensuring that there are robust mechanisms for collaborative engagements to reduce obesity and diet- related NCDs across government sectors and with the commercial sector, NGOs, academia, and communities.


FOOD-EPI 56 AYSIA



FEER Workshop Team

Dr. Kanga Rani Selvaduray, A/Prof. Dr. Muhammad Yazid, Prof. Tilakavati Karupaiah, Mr. Ng See Hoe, Prof. Boyd Swinburn, Dr. Bridget Kelly, Dato' Dr. Zainal Arrifin Omar, Mdm. Sukinurlin, Mdm. Aainaa Mastura Abu Bakar, Dr. Sharifah Wajihah Wafa, Prof. Dr. Norimah Karim, Mdm. Nurul Salwana Abu Bakar, Ms. Noor UI-Aziha, Dr. Nur Hidayati, Mdm. Zailina Abdul Majid, Mdm. Khairul Zarina, Mr. Mustafa Abd. Hamid, Madam A/Prof. Datin Dr. Safiah Mohd Yusof. (Left-Right) 1st row: Mdm. L. Mageswary Lapchmanan, Mdm. Rosmawati Selamat, Prof. Dr. Rosmawati Mohamed & A/Prof. Dr. Foo Leng Huat. (Left-Right) 2nd row: Ms. Nur Faezah Hamzah, Mdm. Nor Faizadatul Ain Ab. Wahid, Mdm. Rashidah Ambak, Mr. Ahmad Faiq Ramli, Mr. Noor Azizan, Chia Yook Chin, Ms. Poh Kai Ling, A/Prof. Dr. Mohd. Nasir Mohd Talib, A/Prof. Dr. Wan Azdie Mohd. Abu Bakar, Prof. Datin Dr. Prof. Dr. Wickneswari Ratnam, Prof. Dr. Mirnalini Kandiah, Dr. Robin Sambhi, A/Prof. Dr. Nik Mazlan, Dr. Salome & Ms. Tey Zoey.

(Left-Right) 3rd row: Dr. Sivashanker V. Kanagasabapathy, Prof. Dr. Andrew Tan Khee Guan, Ms. Narinder Kaur, Dr. Roseline Yap Wai Kuan, Dr. Zulfitri Azuan Mat Daud & Mr. Azrul Mohd Khalib.

Government stakeholders absent in the group photo:

Mr. Abdul Aziz Mohamad Sharkawi, Mr. Zulkifli bin Mohammad, Mdm. Isnizam binti Sapuan, Mdm. Ida Suzita Sabu & Mr. Muhamad Lutfi Ahmad.

Experts absent in the group photo:

Mr. Sharvin Subramaniam, Prof. Capt. Dr. Mohamed Rusli, Dr. Saunthari Somasundaram & Dr. Norshamliza Chamhuri.

Moderator absent in the group photo: Emeritus Prof. Dr. Mohd Noor Ismail.









- Academy of Sciences Malaysia (ASM) 2013, *Prioritising food policy options to reduce obesity in Malaysia*, ASM: Kuala Lumpur.
- Bruemmer B, Krieger J, Salens BE & Chan N 2012 'Energy, saturated fat, and sodium were lower in entrees at chain restaurants at 18 months compared with 6 months following the implementation of mandatory menu labelling regulation in King County, Washington' *Journal of the Academy of Nutrition and Dietetics*, vol. 112, pp. 1169-1176.
- Canadean 2014, Packaged food retailing in Malaysia: Market snapshot to 2017, Canadean: London.
- Centre for Food Safety 2017, *Make better choices use nutrition labels (Hong Kong)*, June 2017, viewed 26 June 2017, http://www.cfs.gov.hk/english/whatsnew/whatsnew_act/whatsnew_act_19_Nutrition_Labelling_Scheme.html
- Colchero AM, Rivera-Dommarco J, Popkin BM & Ng SW 2017 'In Mexico, Evidence of sustained consumer response two years after implementing a sugar-sweetened beverage tax' *Health Affairs*, vol. 36, no. 3, pp.564-571.
- Colchero MA, Popkin BM, Rivera JA & Ng SW 2016 'Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study' *BMJ*, vol. 352, pp. h6704-1-9.
- Curtis CJ, Clapp J, Niederman SA et al. 2016 'US food industry progress during the national salt reduction initiative: 2009-2014' *American Journal of Public Health*, vol. 106, no. 10, pp. 1815-1819.
- Elbel B, Mijanovich T, Dixon B et al. 2013 'Calorie labelling, fast food purchasing and restaurant visits', *Obesity (Silver Spring)*, vol. 21, no. 11, pp. 2172-2179.
- Food and Drug Administration (FDA) 2014a, *Regulations on nutrition labelling for prepackaged food products*, April 2014, viewed August 2017, < https://www.fda.gov.tw/EN/lawContent. aspx?cid=16&id=1633>
- Food and Drug Administration (FDA) 2014b, Public meeting: proposed rules on food labeling revision of the nutrition and supplement facts labels and serving sizes of foods, June 2014, viewed 27 June 2017, < https://www.fda.gov/Food/NewsEvents/WorkshopsMeetingsConferences/ ucm398002.htm>
- Food and Drug Administration (FDA) 2015, *Food labelling: Revision of the nutrition and supplement facts labels*, viewed 27 June 2017, < https://www.regulations.gov/docketBrowser?rpp=50&s o=DESC&sb=postedDate&po=0&dct=PS&D=FDA-2012-N-1210>
- Food and Drug Administration (FDA) 2017, *Changes to the Nutrition Facts Label*, June 2017, viewed 26 June 2017, < https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm385663.htm>
- Global Food Research Programme 2016, *Taxation and price of sugary beverages: Countering industry claims*, Nov 2016, viewed 27 June 2017, < http://globalfoodresearchprogram.web. unc.edu/files/2016/11/TAXATION-AND-PRICE-OF-SUGARY-BEVERAGES.pdf>
- Halton Borough Council 2012, *Hot food takeaway supplementary planning document*. Halton Borough Council: Kingsway, Widnes.
- Institute for Health Metrics and Evaluation (IHME) 2013, *GBD Compare*, IHME, University of Washington, viewed 10 September 2016 http://vizhub.healthdata.org/gbd-compare
- Institute for Public Health (IPH) 2013b, *The National Health and Morbidity Survey 2012: Malaysia School-Based Nutrition Survey 2012*, IPH, MOH: Kuala Lumpur.
- Institute for Public Health (IPH) 2015d, National Health and Morbidity Survey 2015: Non-Communicable Diseases, Risk Factors & Other Health Problems, National Institutes of Health, Ministry of Health: Kuala Lumpur.





- Jabatan Kastam Diraja Malaysia 2017, *Kenyataan akhbar Pembatalan pelaksanaan (Gazet) GST berkadar standard 6% untuk lebih daripada 60 item makanan,* Jabatan Kastam Diraja Malaysia: Putrajaya.
- Karupaiah T, Chinna K, Loi HM et al. 2008, 'What's on Malaysian Television? A survey on food advertising targeting children' *Asia Pacific Journal of Clinical Nutrition*, vol. 17, pp. 483-491.
- Kelly B, Hebden L, King L et al. 2016 'Children's exposure to food advertising on free-to-air television: an Asia-Pacific perspective' *Health Promotion International*, vol. 31, no. 1, pp. 144-152.
- Khazanah Research Institute 2016, *The state of households II*, Khazanah Research Institute: Kuala Lumpur.
- Krieger JW, Chan NL, Saelens BE et al. 2013 'Menu labelling regulations and calories purchased at chain restaurants', *American Journal of Preventive Medicine*, vol. 44, no. 6, pp. 595-604.
- Mars, Inc. 2016, Mars' position on the release of the FDA's draft voluntary guidance on sodium, May 2016, viewed 26 June 2017, http://www.mars.com/nordics/en/press-center/press-list/news-releases.aspx?SiteId=94&Id=7212
- Ministry of Food and Drug Safety 2017, *Food labelling system*, June 2017, viewed 25 July 2017, https://www.mfds.go.kr/eng/index.do?nMenuCode=118
- Moodie R, Stuckler D, Monteiro C, et al. 2013 'Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries' *The Lancet*, vol. 381, no. 9867, pp. 670-679.
- National Institute for Public Health and the Environment 2016, *Dutch Agreement to Improve Product Composition 2014-2020, February 2016,* viewed 25 July 2017, http://www.rivm.nl/en/Topics/F/Food_Reformulation/Dutch_Agreement_to_Improve_Product_Composition_2014_2020
- National Institute of Public Health 2017, Employment changes associated with the implementation of the sugar-sweetened beverage and the nonessential energy dense food taxes in Mexico, viewed 27 June 2017, < https://www.insp.mx/epppo/blog/4206-sugar-sweetened-beverages. html>
- Nestlé USA 2016, *Nestlé announces support for lower sodium targets*, June 2016, viewed 26 June 2017, http://www.nestleusa.com/media/pressreleases/nestle-supports-lower-sodiumtargets
- New York City Health 2016, *New Sodium (salt) warning rule: What Food Service Establishments Need to Know*, June 2016, viewed 25 July 2017, https://www1.nyc.gov/assets/doh/downloads/pdf/cardio/sodium-warning-rule.pdf
- Ng SH, Kelly B, Se CH et al. 2014 'Defining the role of television food advertising in the obesogenic food environment targeting children in Malaysia', *Global Health Action*, vol. 7, no. 25169, pp. 1-11.
- Ng SH, Kelly B, Se CH et al. 2015 'Reading the mind of children in response to food advertising: a cross-sectional study of Malaysian schoolchildren's attitudes towards food and beverages advertising on television', *BMC Public Health*, vol. 15, no. 1 pp. 1047 (1-14).
- NSW Food Authority 2013 'Evaluation of kilojoule menu labelling' July 2013, viewed 27 June 2017, <http://www.foodauthority.nsw.gov.au/_Documents/scienceandtechnical/fastchoices_ evaluation_report.pdf >
- Phulkerd S, Vandevijvere S, Lawrence M et al. 2016 'Level of implementation of best practice policies for creating healthy food environments: assessment by state and non-state actors in Thailand.' *Public Health Nutrition*, vol. 20, no. 3, pp.381-390.
- Prentice AM & Jebb, SA 2003 'Fast Foods, Energy Density and Obesity: A Possible Mechanistic Link. *Obesity Reviews*, vol. 4, pp. 187-194.



60 FOOD-EPI MALAYSIA

- Sinclair S & Winkler J 2008, The school fringe What pupils buy and eat from shops surrounding secondary schools (Key Findings), July 2008, viewed 27 June 2017, < http://www.fhf.org.uk/meetings/2008-07-08_School_Fringe.pdf>
- St. Helens Council 2011, *Local development framework supplementary planning document hot food takeaways*, St. Helens Council: Merseyside.
- Swinburn B, Sacks G, Vandevijvere S et al. 2013a 'INFORMAS (International Network for Food and Obesity/ non-communicable diseases Research Monitoring and Action Support): overview and key principles' *Obesity Reviews*, vol.14, no. Suppl. 1, pp. 1-12.
- Swinburn B, Vandevijvere S, Kraak V, et al. 2013b 'Monitoring and benchmarking government policies and actions to improve the healthiness of food environments: a proposed government healthy food environment policy index.' *Obesity Reviews*, vol. 14, Suppl. 1, pp.24–37.
- Swinburn BA, Sacks G, Hall KD, et al. 2011 'The global obesity pandemic shaped by global drivers and local environment', *Lancet*, vol. 378, no. 9793, pp. 804-814.
- The Chip Group 2017, *Why do we need Industry Standards?*, viewed 25 July 2017, <http://www. thechipgroup.co.nz/industry-standards-2/why-do-we-need-standards-2>
- The Health Committee 2009, *Health inequalities third report of session 2008-09 Volume 1 report, together with formal minutes,* House of Commons: London.
- Vandevijvere S, Sacks G, Brinsden H et al. 2015 'INFORMAS Measuring the drivers of obesity, disease, health, well-being' [Sick societies] World Nutrition, vol. 6, no.3, pp. 184-201.
- Watkins DA, Olson ZD, Verguet S, Nugent RA, Jamison DT 2016 'Cardiovascular disease and impoverishment averted due to a salt reduction policy in South Africa: an extended cost-effectiveness analysis' *Health policy and* planning, vol. 31, no. 1, pp. 75-82.
- Word Health Organization (WHO) 2012, A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children, WHO: Geneva.
- World Cancer Research Fund 2017a, *NOURISHING Framework Restrict food advertising and other forms of commercial promotion*, June 2017, viewed 25 June 2017, http://www.wcrf.org/int/policy/nourishing-framework/restrict-food-marketing
- World Cancer Research Fund 2017b, *NOURISHING Framework: Set incentives and rules to create a healthy retail and food service environment*, June 2017, viewed 25 June 2017, http://www.wcrf.org/int/policy/nourishing-framework/restrict-food-marketing
- World Cancer Research Fund 2017c, NOURISHING Framework: Nutrition label standards and regulations on the use of claims and implied claims on food, June 2017, viewed 25 June 2017, < https://www.wcrf-uk.org/sites/default/files/1 Nutrition%20labels June%202017.pdf>
- World Cancer Research Fund 2017d, *NOURISHING Framework: Improve nutritional quality of the whole food* supply, June 2017, viewed 25 June 2017, < https://www.wcrf-uk.org/sites/ default/files/5_Improve%20Nutritional%20Quality_June%202017.pdf >
- World Health Organization 2014b, Non-communicable diseases country profiles 2014. WHO: Geneva.

