Guideline for Healthcare Professionals

Health Education and Communication Tools to Reduce Salt Intake in Malaysia

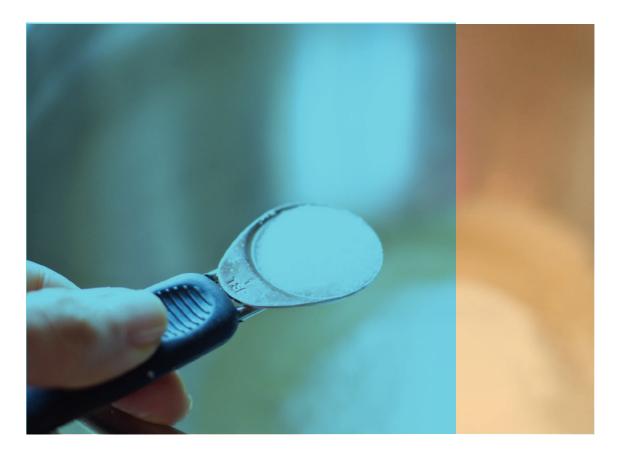






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INTRODUCTION

This guideline for healthcare prefessionals aims to reduce salt intake in Malaysia. It has been adapted from the WHO SHAKE package on developing population level salt reduction using the Communication for Behavioural Impact (COMBI) principles.

COMBI is a dynamic approach to behaviour change that utilises strategic social mobilisation and social communication that leads to measurable changes in behaviour. In the context of reducing salt consumption, COMBI uses multiple communication channels in order to connect schools, communities, health service providers and local authorities and agencies towards the goal of reducing population salt consumption. While contextual differences are important in customising an effective salt awareness campaign, the key principles remain consistent and have been used to design the guideline for Malaysia to deliver and evaluate effective communication for behaviour change related to reducing salt intake in the community using strategies that use promotional and educational approaches.

This guideline focuses on on steps and tools to increase knowledge, to educate and communicate to empower consumers or target group to eat less salt. It is part of a broader strategy to reduce population salt intake developed by the Ministry of Health Malaysia (MOH). The guideline was developed based on a workshop held in Malaysia in September 2016 at the MOH. It is intended for healthcare professionals to support them to deliver salt reduction messages within community settings as well as to train other healthcare professionals.

The six steps to develop and implement a COMBI intervention to reduce salt intake in the community by healthcare professionals include:

- Step 1: Research to understand salt consumption patterns and salt intake
- Step 2: Identify the target audience
- Step 3: Define the goal and specific behavioural objectives
- **Step 4:** Develop key messages
- Step 5: Identify communication channels
- Step 6: Establish methods for implementation and evaluation

Identifying knowledge, attitudes and behaviours related to salt intake, sources of dietary salt, cooking habits in relation to salt and use of table salt are vital to understand how best to tailor advise to reduce salt. It is important to gather this information at baseline to inform the development of the salt reduction strategy / intervention and as a basis from which to measure progress, and then again at the end of the intervention to assess the impact of the intervention.

1.1 Knowledge, Attitudes and Practice (KAP)

KAP questionnaires adapted and translated by MOH should be used in the community to gain an understanding about current salt use. Healthcare professionals should capture KAP data during consultations with individuals which will inform the development of key messages, related to salt.

1.2 Dietary surveys

24-hour dietary surveys should be carried out by the healthcare professionals. The 24-hour dietary recall is a retrospective assessment method in which an interviewer prompts a respondent to describe all foods consumed in the previous day and estimate the quantity of the foods and beverages consumed over that period. The method is supported by tools that help with determination of serving size and volumetric estimation. The data are then converted into nutrient intakes using food composition tables. A key challenge is the significant workload and the substantial costs associated with this type of data collection on a large sample. Consideration should be given to doing the 24-hour dietary recall on just a representative subset of individuals within the community to inform a salt reduction strategy.

If the target groups have already been identified, then it is important to make sure that the KAP and dietary surveys have representative samples from the relevant people in these groups.

Appendix 1 is the questionnaire that was used in the intervention study to reduce salt intake among MOH staff (My STARS). Module E shows the KAP questionnaire, while Module F shows Food Frequency Questionnaire (FFQ). **Appendix 2** shows the 24-hour dietary recall.

1.3 24-hour urinary sodium analysis

This is the Gold Standard to measure salt intake in a person as recommended by WHO as 85% to 95% sodium consumed from the diet will be excreted through the urine. Urine should be collected for 24 hour using the instruments provided by the researchers. The urine collection period starts from the second urine during the first day wake up to the first urine the next day during the early morning rises. Participants need to be provided with a 24-hour urinal container, cups and bags to store urine. Detailed information on the collection of urine will be explained by researchers. The urine collected should be sent to the laboratory to be analysed for sodium content.

Research to measure sodium intake should involve a process that may cause participants to feel a bit uncomfortable during the period of urine collection but it wont disrupt their work. There is some financial implication to purchase equipments for urine collection e.g. urinal containers, cups and bags, and reagents for laboratory analysis. This method is preferred if budget is provided and to make sure that the outcome of the study can be measured in terms of salt intake especially when the ultimate aim for any awareness or intervention programme to reduce salt is the reduction of salt intake in the targeted individual, group or community involved.

STEP 2 IDENTIFY THE TARGET AUDIENCE

Three target audiences were identified by healthcare professionals at the workshop and subsequent discussions as the main focus groups for salt reduction activities within the community.

2.1 Women in the household

Women were identified as the primary care-giver and gate-keeper of food eaten in the home.

2.2 Communities

Focus on both urban and rural. Salt reduction messages delivered within the community would alert the whole community to the dangers of eating too much salt, and would likely support efforts made by women in the household to reduce salt used during cooking and at the table.

2.3 Workplace setting

Since the baseline data for salt intake was determined among health staff in Malaysia in 2012 and 2015. Subsequently, an intervention study to reduce salt intake among MOH staff was done as a pilot study. The main purpose of the study is to assess the effectiveness of the salt reduction intervention package developed through changes in the level of daily salt intake (sodium) from urine and the food (before and after intervention) among MOH staff. In addition, this study also aimed to obtain information on knowledge, practices and attitudes towards salt intake in daily food. The information is useful to support and develop policy and intervention materials related to the consumption and reduction of salt among Malaysians in order to prevent chronic diseases.

The results from Step 1 should be used to help refine the goals, specific behavioural change objectives and messages for each of these groups.

STEP 3

DEFINE THE GOAL AND SPECIFIC BEHAVIOURAL OBJECTIVES

The overall goal of this intervention is to reduce salt intake through delivering effective communication messages on the dangers of eating too much salt, and provide advice on how to change behaviour. Objectives that are effective need to be clear and specific, e.g. who will do what, by when, and often by how much.

Three specific behaviour change objectives were identified through the workshops:

- 1. To reduce the use of salt, salty sauces and condiments during cooking and at the table
- 2. To choose low salt foods
- 3. To reduce the number of meals eaten out of the home

Messages and advice will often relate to changes in knowledge, attitudes, intentions or behaviours of the target audience.

Examples of messages that could achieve these behaviour change objectives identified during the workshop for pre-testing include:

- Reduce amount of salt added during cooking (by half), gradually
- Reduce use of salty sauces added during cooking and at the table
- Check label on processed foods choose lower salt option
- Reduce number of meals eaten out of the home one meal a day only
- One meal a day do not add salt
- Increase use of fresh herbs and spices instead of salt
- Emphasise that everyone can change gradually.

Review and adapt change objectives according to feedback from individuals.

STEP 4 DEVELOP KEY MESSAGES

Getting the message right is important to the successful implementation of any salt reduction strategy. Designing key campaign messages will require information on what the target audience or audiences know about the health effects of consuming too much sodium and where there are gaps in understanding. This must take into consideration levels of literacy and education as well as cultural and linguistic differences. Communication targeted at the general public, for instance, should be easy to follow, free of jargon and acronyms with a few facts and figures.

Core messages aimed at everyone will often include:

- Health effects of consuming too much sodium
- Recommended levels of dietary salt
- Types of foods that contribute to excessive salt intake
- Guidance and helpful tips for how to avoid consuming a high salt diet

Examples identified through the workshop included:

- We are all eating too much salt, which raises blood pressure the biggest killer in Malaysia
- Higher salt intake increase hypertension risk
- Major sources of salt in the diet include local kuih, noodles, bread, small noodles (mihun), flavoured rice (fried rice) and sauces including soy sauce
- We should eat less than 5g salt / day, less than a teaspoon of salt

These core messages will be informed by the initial situation assessment concerning main sources of salt in the diet and average intake levels (from KAP and dietary surveys). Therefore the final message or messages developed will be based on the outcomes of research.

All messages should be developed, and then tested, and refined where required. There are many reasons why pre-testing your message, and in some situations your materials, before making final decisions is important to the successful outcome of your strategy. These reasons include:

- Ensuring that your target audience or audiences understand the message
- Identifying costly mistake early
- Identifying ways to make the message and material more appealing and beliveable
- To confirm methods of delivery and or identify additional methods

The time required to develop, test, refine and develop materials is often underestimated and consequently given unrealistic timelines, therefore it is important to consider this in the initial planing stages.

In addition to the core messages, the workshop identified specific behaviour change messages for the two target groups as follows and subsequently the workplace setting after the workshop.

4.1 Key behaviour change messages for women in the household

Key behaviour change for women in the household aimed to advise them about what they can do to help their family eat less salt - without telling them - as there was concern that the family would not eat the food if they knew that the food contained less salt. These include:

- Generous with love, not with salt
- Protect your family, gradually reduce, they won't know, shh.. shh..
- Murah tapi bahaya
- Poket ok, nyawa ko, RIP (reduce intake, please)
- Today less, tomorrow lesser
- You can make a difference
- Watch out for salty sauces including soy sauce, fish sauce and stock cubes

4.2 Key behaviour change messages for community setting – urban and rural

Key messages developed for delivery through community groups, and from mass media campaigns are targeted at the whole population which includes men and women in both urban and rural communities. These key messages, will be tailored slightly differently due to the different sources of salt in the diet in urban versus rural setting. These include:

- Watch your hidden salt many foods contain lots of hidden salt
- Processed foods contain a lot of salt read the label and choose the lower salt option
- Know your salt limit, eat no more than 5g salt per day, less than half a teaspoon
- Only half teaspoon of table salt is enough for home cooking
- Skip the salt

4.3 Key behaviour change messages for workplace setting

After the intervention study to reduce salt intake among MOH staff In Malaysia, a set of key behaviour change messages and other mode of education was developed. Tools like slide, a set of infographic and poster containing key messages on salt and health effects, sources, labelling, video and recipes on low sodium cooking demonstrations were prepared tested and finalised. One innovation which was developed through this intervention study was the application of salt counting using the point system to count and apply the 2,000mg sodium recomended by WHO.

Appendix 3 contains key behavioural change messages in the forms of slide presentation, infographics, posters, cooking demonstration videos, recipe book, and point system brochure

These messages will require pre-testing and refining. It is important to check that these messages will help achieve the specific behaviour change objectives identified in Step 3

STEP 5

IDENTIFY COMMUNICATION CHANNELS

Once core and targeted messages are identified, a communication strategy needs to be developed. The COMBI approach utilises a framework with an integrated mix of five communication action areas to achieve the specific behavioural changes objectives. These communication action areas are listed in Table 1 below with intended activities, outputs and outcomes to achieve the overall goal / impact of intervention of population level salt reduction.

The activities listed below were identified during the workshop and should be led by MOH Malaysia with support from the healthcare professionals. In order to ensure the timely delivery of the activities listed in Table 1, responsible officers and timelines will need to be established by MOH with support from The George Institute (TGI), Sydney.

Table 1: Communication for behaviour impact for salt reduction in Malaysia

Intervention	Activities	Outputs	Outcome/ Timeline	Impact
Public advocacy to mobilise decision makers	Meetings with MOH and healthcare professionals to deliver salt reduction messages	MOH workshop with healthcare professionals including dietitians and nutritionists to deliver training on importance of salt reduction in Malaysia	Healthcare professionals advocating for salt reduction and developing and delivering salt reduction tools including leaflets and tips on how to reduce salt intake	
Community mobilisation to engage community leaders	Intervention in schools or higher learning institution: Engaging with teachers or programme head and students of preschool, primary & secondary schools or higher learning institution and communicating information about salt reduction through school or higher learning institution activities Leverage peer-education opportunities to deliver information about salt reduction through peer-led education program for example Parent teacher programme, "Young doctors (Doktor Muda-school), Tunas (Pre School) and PROSIS (Higher learning institution) Engaging with cooks/chefs and food service providers in schools or higher learning institution to deliver information about cooking with less salt, and promoting healthier foods (fruits and vegetables)	Meetings with head of schools, programs heads and teachers Disseminate leaflets on importance of salt reduction and tips to reduce salt Embed importance of healthy eating (less salt) in to the curriculum especially in "Doktor Muda", Tunas curriculum. Promote healthy eating behaviours such as eating more vegetables and fruits, limiting fat intake, and reducing consumption of soft drinks and snacks by educating school children, parents, teachers, and school cooks Develop leaflets with information about eating less salt, and tips for choosing healthier options. Meetings with school teachers and peer educators to deliver leaflets and messages about eating less salt during school, and as part of the lunch box program Meetings with chefs and food service providers in schools or higher learning institutions to deliver information about cooking with less salt, and promoting healthier foods (fruits and vegetables) Students in higher learning disseminate tools appropriate such as slide, infographic, video and recipes on cooking demonstrations, poster, leaflets on importance of salt reduction and tips to reduce salt through social media including Facebook, Twitter, Wechats, Whatsapp, Bloggers etc	School teachers and health champions, school team, Parent Teachers group, or other group within the school leading the intervention to increase awareness of dangers of eating too much salt Parent teacher groups teach peers about dangers of eating too much salt, and promote healthier options. Parent teachers group or school team hand out leaflets to peers, which children share with family at home to encourage healthier eating behaviours at home, and encouraging healthier lunch boxes School meals contain less salt, and salty ingredients Students society or groups in higher learning institutions leading the intervention to increase awareness of dangers of eating too much salt through peers Food cafeterias and restaurant in institute of higher learning meals contain less salt and salty ingredients	A reduction in population level salt intake

Intervention	Activities	Outputs	Outcome/ Timeline	Impact
Community mobilisation to engage community leaders;	Intervention for women in household Engaging with "PUSPANITA" and communicating information about salt reduction Intervention in local communities: Engaging with program heads or local leaders to deliver messages about dangers of eating too much salt and tips to reduce salt intake Example: KOSPEN localities etc Intervention in workplace setting: Engaging with program heads or department leaders to deliver messages about dangers of eating too much salt and tips to reduce salt intake Example: KOSPEN Plus localities e.g. MOH, all government office staffs or private sector staffs who are willing to join	Meetings with head of PUSPANITA Disseminate leaflet and poster Meetings with program head, local leaders, volunteers to educate on dangers of eating too much salt, and importance of healthier eating practises Disseminate leaflets on importance of salt reduction and tips to reduce salt Engaging with program head or various workplace department leaders to deliver messages about dangers of eating too much salt and tips to reduce salt intake Disseminate tools appropriate such as slide, infographic, video and recipes on cooking demonstrations, poster, leaflets on importance of salt reduction and tips to reduce salt	PUSPANITA or other group leading the intervention Healthcare professionals advocating for salt reduction and developing and delivering salt reduction tools including leaflets and tips on how to reduce salt intake	A reduction in population level salt intake
Sustained community-based social marketing	Activities that engage community leaders social media channels to deliver messages about dangers of eating too much salt Example: KOSPEN community	Develop a poster campaign, infographic, and supporting materials which can be shared on billboards, disseminated at health care centres, rest and recreation area, mosque, churches, temple and through social media including Facebook, Twitter, Wechats, Whatsapp, Bloggers etc Broadcast messages through loudspeakers, displaying posters / leaflets in public places, displaying posters for community events, and distributing leaflets through community groups, mosque, church / temple etc	Increase awareness of dangers of eating too much salt in communities, and increased awareness about foods that contain high levels of salt and tips to reduce salt intake	
Education to individuals through face-to-face engagement	Activities that engage individuals through healthcare centres, and community activities (KOSPEN, clinics & hospitals)	Community events about prevention of hypertension and cardiovascular diseases including cooking demonstrations to promote low salt cooking practises	Increase awareness of dangers of eating too much salt in communities, and increased awareness about foods that contain high levels of salt and tips to reduce salt intake	
Point of service promotion to healthcare centres	Activities that promote delivery of salt reduction messages (clinics and hospitals)	Video, infographic, posters and leaflets for dissemination at clinics and hospitals	Increase awareness of dangers of eating too much salt	

STEP 6

ESTABLISH METHODS FOR IMPLEMENTATION AND EVALUATION

Implementation and roll out of the campaign will require support both internally from the MOH and externally from healthcare professionals, program head (such as KOSPEN and KOSPEN Plus), community leaders including school teachers, members of the local council, mosque, temple or church groups, as well as members of the community and family members.

The following elements will form part of the implementation:

- Distribution this includes a recommendation on dissemination or communication methods;
 do the relevant people know how to distribute the materials now and on an ongoing basis.
- Promotion and public relations required when launching the project, provide a major focus upon commencement and ensure further engagement and promotion is ongoing.
- Training ensuring that people within the organisation responsible for the campaign, and partner organisations, are briefed on the strategy and are aware of their role in the implementations.

Evaluation at different stages of the program will ensuring that the target audiences understand the message, and helps identify ways to make the message and materials more appealing and believable. Also measures methods of delivery and / or identify additional methods to deliver salt messages.

The fundamental purpose of the evaluation is to learn how to improve the current and future campaigns and programs.

The feedback function should not wait until the conclusion of the campaign when all evaluation has been completed. Instead, it should occur in real time, to use it to effectively adjust campaign direction, if required.

Recommendations and next steps:

- KAP specific to Malaysia translated in to Bahasa Malaysia
- Dietary survey questionnaire to be developed specific to Malaysian context
- Test key messages
- Develop poster with campaign messages
- Develop brochure with campaign messages and tips on how to reduce salt intake
- Develop evaluation framework of consumer awareness campaign (Appendix 4)

For workplace setting, all the recommendation have been conducted and the KAP, dietary survey questionaire, key messages, poster, leaflets and evaluation have been done as shown in Appendix 1, 2 and 3 and available at www.moh.gov.my/index.php/pages/view/1937. The Manual for training on how to use these educational tools has also been developed.

For the home makers, school and community. the key messages or tools (using the workplace setting messages) should be used, pretested and modified based on each setting requirements.

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Intervention Study to Reduce Salt Intake Among Ministry of Health Staff (My STARS)

ID Responden:

Module A: Health Problem	
A1. Are you currently undergoing treatment for the following condition	Notes
Liver disease Diuretic therapy Kidney failure	
Stroke Heart disease Hypertension	
Diabetes	
A2. Are you on any special diet, such as diabetic diet, low salt diet, low calorie diet etc?	
Yes No	
A3. Are you pregnant?	
Yes No	
<u> </u>	
Module B : Personal Information	
B1. Date B2. Identity card	
Date Month Year	
B3. Gender B4. Age	
Male Female Years	
B5. Ethnicity Malay Chinese Indian Bumiputra Bumiputra Crang Asli Others	
B6. Marital status Not married Married Separated Widow/Widower Balu Others	
B7. Highest academic qualification	
Year 6 Form 3 Form 5 Form 6/ Certificate/ Diploma	
Degree Master PhD Others	
B8. Individual income	
RM Do not know Do not want to answer	
B9. Household income	
RM Do not know Do not want to answer	
Module C : Anthropometry and Blood Pressure Measurement	
C1. Body weight C2. Height	Notes
□□□. □ kg □. □□m	
C3. Waist circumference C4. Blood pressure	
cm Systolic mmHg Diastolic mmHg	

Module D : Medical History
D1. In the last 6 months , fromtill today, have you taken any painkillers such as Ponstan, Voltaren, Brufen, Arcoxia and Celebrex/ Mobic? Panadol/ paracetamol is not included. Telebrate Tele
ir your answer is NO, prease go to question D3
D2. How frequent do you take those painkillers?
At least once a day At least once a week At least once a month More than a month
D3 In the last 6 months , fromtill today, have you taken any herbs/ traditional medicine such as 'Ubat Makjun', ginseng, 'Tongkat Ali', 'Kacip Fatimah' etc?. Yes No *If your answer is NO, please go to Module E
D4. How frequent do you take those herbs/ traditional medicine?
At least once a day At least once a week At least once a month More than a month
Module E : Knowledge, Attitude and Practice Towards Salt Intake
E1. Do you add salt to food at the table? Never Rarely (1-2 times) Sometimes (2-3 times) Often (4-5 times) Always (>6 times)
E2. Do you add soy sauce to food at the table? Never Rarely (1-2 times) Sometimes (2-3 times) Often (4-5 times) Always (>6 times)
E3. In the food you eat at home salt is added in cooking Never Rarely (1-2 times) Sometimes (2-3 times) Often (4-5 times) Always (>6 times)
E4. How much salt do you think you consume? Far too much Too much Too little Far too little Dont know
E5. Do you think that a high salt diet could cause a serious health problem? Yes No
E6. If Yes in E5 above, what sort of problem?
☐ High blood pressure ☐ Stroke ☐ Heart disease ☐ Osteoporosis ☐ Stomach cancer ☐ Kidney stones ☐ Leptospirosis ☐ Dengue
E7. Do you know the national recommendation of salt intake for an adult in a day? 1 table spoon (15 gram) 1 level teaspoon (5 gram) 2 level teaspoon (10 gram) 1/2 level teaspoon(2.5 gram) Don't know
E8. The chemical name of salt in cooking is potassium chloride Right Don't Know
E9. Sodium / Natrium refers to salt in the Nutrition Information Panel Right Don't Know
E10. Choose the foods with higher salt content (select one answer only) 1 whole Banana 2 slices of Bread 1 whole steamed sweet potato 1 plate of fried mee

E11.	How important to you is lowering the salt/sodium in your o	liet? Very important
E12.	Do you do anything on a regular basis to control your salt Yes No *If your answer YES, please go to question E12	or sodium intake?
E13.	If answer is Yes in E12 above, what do you do Avoid/minimize consumption of processed foods Look at the salt or sodium labels on food Do not add salt when cooking Use spices other than salt when cooking	Do not add salt at the table Buy low salt alternatives Avoid eating out Other (specify)
E14.	In a typical week, how many days do you take breakfast (6 1 2 3 4 5 6 7 day	5.00 am to 8.00 am)?
E15.	Where do you normally get the food from? (select one ans Home prepared Buy from restaurant / s Buy from cafeteria / canteen at workplace Others	
E16.	In a typical week, how many days do you take lunch? (12.0) 1 2 3 4 5 6 7 day	0 pm to 2.00 pm)?
E17.	Where do you normally get the food from? (select one ans Home prepared Buy from restaurant / s Buy from cafeteria / canteen at workplace Others	
E18.	In a typical week, how many days do you take dinner? (12.	00 pm to 2.00 pm)?
E19.	Where do you normally get the food from? (select one ans Home prepared Buy from restaurant / s Buy from cafeteria / canteen at workplace Others	

E20. Based on nutrition fact on bread brand Y shown below, please read and state whether the statement is correct or wrong

Nutritional facts for 1 packet of bread Y						
Serving size: 2 slices ((60.3	ing per packet : 6.5					
	Every serving (2 slices)	Every 100 gram				
Energy	249 kcal	151 kcal				
Fat	2.1 g	1.3 g				
Cholestrol	0 mg	Omg				
Sodium	430 mg	265 mg				
Carbohydrate	43.2g	26.6 g				
Fibre	7.1 g	4.4 g				
Protein	12.2g	7.5g				
Vitamin A	331ug	204ug				
Calcium	295mg	182 mg				
Iron	7.6 mg	4.7mg				
Vitamin E	5.5 mg	3 mg				
Zink	2.1 mg	1.3 mg				

	Vitamin E	5.5 mg	3 mg	
	Zink	2.1 mg	1.3 mg	
,	If I eat 2 serving of bread y, it pr	rovides me with 530 mg of soo	lium	•
E21.	What information about salt and h	,		
	b			
	c d			
E22.	Normally you get health information			
	1. Magazine / newspaper / re	eference book 2. H	ealth booklet	
	3. Poster / banner / bunting	4. In	ernet (website, portal)	
	5. Apps (example: MyNutriD MyHealth Portal)	,	ocial media (Twitter, Facebook, Instag tsApp, YouTube)	ram,
	7. Electronic media (Televisi	on, radio) 8. Se	eminars / forums	
	9. Campaign / health camp			
E23.		ase state the method you have	chosen for the delivery of health inf	ormation.

No.	A. Type of food	Fre (Fill ir	B. Frequency of Intake (Fill in one column only)			D. Serving
		Daily	Week	Month	consume	Size
1	Meat & Product	-				
E101	Roasted chicken					1 medium piece
E102	Fried chicken with spices					1 medium piece
E103	Ayam gulai					1 medium piece
E104	Chicken curry					1 medium piece
E105	Chicken cooked with soy sauce					1 medium piece
E106	Chicken cooked with chili sauce					1 medium piece
E107	Grilled chicken					1 medium piece
E108	Ayam rendang					1 medium piece
E109	Chicken soup					1 medium piece
E110	Mutton curry					1 medium piece
E111	Beef soup with soy sauce					1 medium bowl
E112	Beef soup					1 medium piece
E113	Beef cooked with gulai sauce					1 medium piece
E114	Beef cooked with rendang sauce					1 medium piece
E115	Fried internal organ					1 medium piece
E116	Chicken satay					3 sticks
E117	Beef satay					3 sticks
E118	Ham, Luncheon					1 medium piece
E119	Mixed Tom yam					1 medium bowl
2	Fish/ seafood and products					
E201	Fish / prawn / squid / crab ball / cake					1 piece / ball
E202	Fish cooked with sambal					1 medium
E203	Fish anchovies					1 dessert spoon
E204	Sambal tumis ikan bilis					1 dessert spoon
E205	Fish cooked with soy sauce					1 medium piece
E206	Sweet and sour fish					1 medium piece
E207	Salted fish					1 small piece
E208	Roasted or grilled fish					1 medium
E209	Fish soup					1 medium bowl
E210	Fried squid /prawn					1 medium piece
E211	Squid / prawn cooked with sambal					1 medium piece
E212	Dried squid					1 medium piece
E213	Dried shrimp (dalam masakan)					2 dessert spoon
E214	Tofu cooked with bean paste					1 piece
3	Egg					
E3001	Omelette					1 medium
E3002	Egg cooked with coconut milk					1 medium
E3003	Salted egg					1 medium

No.	A. Type of food	B. Frequency of Intake (Fill in one column only)			C. Quantity	D. Serving
		Daily	Week	Month	consume	Size
4	Spread					
E4001	Cheese					1 Slice
E4002	Margarine					1 teaspoon
E4003	Peanut butter					1 teaspoon
5	Kuih muih / bread					
E501	White bread					2 slices
E502	Murtabak					1 piece
E5003	Roti canai / roti telur					1 keping
E5004	Prawn fritter					3 numbers
E5005	Sardine sandwich					2 sets
E5006	Pulut panggang					2 numbers
6	Snack					
E601	Pickles					4 pieces
E602	Salted nuts					1 small packet
E603	Fish / Prawn crisps					1 small packet
E604	Keropok Kentang / Bawang					1 small packet
E605	Potato chips					1 small packet
E606	Kerepek rangup (maruku)					1 small packet
E607	Papadom/ appalam					2 pieces (32.8g)
7	Seasoning / Flavouring/ Sauces					
E701	Budu sauce					1 teaspoon
E702	Cencaluk					1 teaspoon
E703	Soy sauce (light)					1 dessert spoon
E704	Soy sauce (thick)					1 dessert spoon
E705	Sambal belacan					2 dessert spoon
E706	Tomato / chilli sauce					1 dessert spoon
E707	Soy sauce sambal					1 dessert spoon
E708	Asam boi					1 teaspoon (5g) = 4mg sodium

No.	A. Type of food	Fre (Fill in	B. Frequency of Intake (Fill in one column only)			D. Serving
		Daily	Week	Month	consume	Size
8	Fast Food					
E801	Original Fried Chicken (Drumstick / thigh / breast/wing)					1 piece / ball
E802	Spicy Fried Chicken (Drumstick / thigh / breast/wing)					1 medium
E803	Burger (Chicken / beef / fish / banjo)					1 dessert spoon
E804	Chicken meatball soup					1 medium piece
E805	Chicken wing – Deli / Sweet and spicy					1 medium piece
E806	Coleslow					1 medium
E807	Colonel Chicken Rice					1 medium bowl
E808	Colonel / Fillet / Zinger / McChicken/ Double cheese burger					1 medium piece
E809	French Fries					1 medium piece
E810	Sausage					2 dessert spoon
E811	Mashed potato					1 small piece
E812	Chicken nugget					6 piece
E813	Pasta					1 medium
E814	Pizza					1 medium
E815	Cheezy wedges					1 medium
9	Cooked food					
E901	Fried kueh teow					1 plate
E902	Sizzling noodle					1 bowl
E903	Mee kolok					1 plate
E904	Penang laksa					1 bowl
E905	Laksam					1 bowl
E906	Fried noodle					1 plate
E907	Jawa noodle					1 bowl
E908	Curry noodle					1 bowl
E909	Instant noodle					1 bowl
E910	Fried instant noodle					1 plate
E911	Noodle soup					1 bowl
E912	Fried rice vermicelli					1 plate
E913	Rice vermicelli soup					1 bowl
E914	Chicken rice					1 plate
E915	Briyani rice					1 plate
E916	Nasi Dagang					1 plate
E917	Fried Rice					1 plate
E918	Nasi Kerabu					1 plate
E919	Steamed Rice					1 plate
E920	Nasi Lemak					1 plate
E921	Flavoured rice					1 plate

No.	A. Type of food	B. Frequency of Intake (Fill in one column only) Daily Week Month		C. Quantity consume	D. Serving Size	
10	Other cooked food					
E1001	Indian yogurt chilli (Moor molagai)					1 cup
E1002	Acar sayur / jeruk bambangan / acar buah Indian (Urukkai)					2 dessert spoon
E1003	Manggo salad					1 bowl
E1004	Peanut gravy					1 dessert spoon
E1005	Fried vegetable					1 cup
E1006	Vegetable cooked with salted fish					2 dessert spoon
E1007	Vegetable with soy sauce/ oyster sauce					2 dessert spoon
E1008	Vegetable cooked with coconut milk					1 cup
E1009	Salted vegetable / lobak masin					1 dessert spoon
11	Canned food					
E1001	Roasted nuts					2 dessert spoon
E1102	Canned sardine					1 piece
E1103	Creamy soup / mushroom/ chicken					1 bowl
E1104	Canned Tuna					1 piece



FOOD DIARY

24-Hour Diet Recall (My STARS)

ID:	
10.	
NAME:	
IC:	
TELEPHONE.	
NUMBER	

NCD Section Disease Control Division Ministry of Health Malaysia

Part 1: Food Portion Size

Spoons & ladle



Teaspoon



Soup Spoon





Bowls





Small Bowl

Chinese Bowl



Large Bowl

*To reduce amount of rice, noodles taken







Cup



Mug

*To estimate amount of liquid consumed

Chicken





Drumstick

*To estimate amount of vegetables consumed



Breast (large)



Thigh

Beef



Fish











Slice of fish

Half Slice of fish

*To estimate amount of meat consumed

Part 2 : Food Diary

Food Diary: 24-Hour Diet Recall

- 1. Please write down all the food, snacks or drinks you consume in a day.
- 2. Write in details the amount of the ingredients, sauce or gravy included in the food.
- 3. One of these days is the day of the collection of urine in 24-hour.

Example

A. Time for Breakfast (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
6.30 am	Home cooked	• Fried mee	Mee Chicken Tomato sauce Chilli sauce Oyster sauce Salt Carrot	• 1 cup • 1½ cup • 1 tbspn • 1 tbspn • ½ tspn • 1 tsp (4 serving) • 1 tbspn

A. Time for Morning tea (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
10.00 am	Office	Milo Biscuit cream crackers	Milo 3 in 1 Biscuit Hup Seng	• 1 packet • 3 pieces

A. Time for Lunch (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
1.00 pm	Office	RiceFried FishVegetables soup	White rice Mackerel fish Carrot cabbage	• 1 cup • 1 piece • 1 small bowl

Food Diary: 24-Hour Diet Recall

- 1. Please write down all the food, snacks or drinks you consume in a day.
- 2. Write in details the amount of the ingredients, sauce or gravy included in the food.
- 3. One of these days is the day of the collection of urine in 24-hour.

Public Holidays / Weekends

Day	1. Saturday	2. Sunday	3. Public Holiday
Date			

A. Time for Breakfast (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
		<u> </u>		
A. Time for Morning tea (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
A. Time for Lunch (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)

A. Time for Afternoon Tea (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
A. Time for Dinner (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
			D	_
A. Time for Supper (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)

Food Diary: 24-Hour Diet Recall

- 1. Please write down all the food, snacks or drinks you consume in a day.
- Write in details the amount of the ingredients, sauce or gravy included in the food.
 One of these days is the day of the collection of urine in 24-hour.

Working Days

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Date					

A. Time for Breakfast (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)

A. Time for Morning tea (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)

A. Time for Lunch (hour)	B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)

B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
B. Food sources (buy / cook)	C. Type of food or drink	D. Ingredients in food or drink	E. Household measurament (tablespoon, teaspoon, cup, spoon)
	B. Food sources (buy / cook) B. Food sources (buy / cook)	B. C. Type of food or drink B. C. Type of food or drink B. C. Type of food or drink	B. Food sources (buy / cook) B. Type of food or drink C. Type of food or drink B. C. Ingredients in food or drink B. C. Ingredients in food or drink

^{*} These forms can be downloaded from www.moh.gov.my/index.php/pages/view/1937

Slide Presentation

Slide presentation is in form of Prezi and Powerpoint (40 slides)

























^{*} These slides can be downloaded from www.moh.gov.my/index.php/pages/view/1937

Infographic







Panel 1 Panel 2 Panel 3





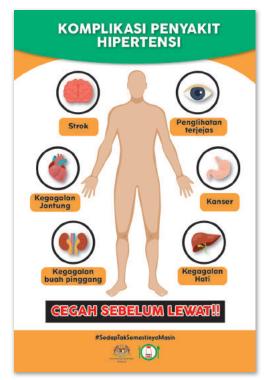


Panel 4 Panel 5 Panel 6

^{*} These infographics can be downloaded from www.moh.gov.my/index.php/pages/view/1937



Poster 1



Poster 3



Poster 2



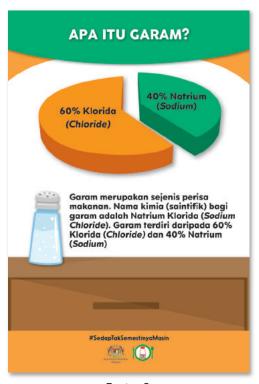
Poster 4



Poster 5



Poster 7



Poster 6



Poster 8



Poster 9



Poster 11



Poster 10



Poster 12



Poster 13



Poster 15



Poster 14



Poster 16





Poster 17 Poster 18



Poster 19

^{*} These posters can be downloaded from www.moh.gov.my/index.php/pages/view/1937

Video Cooking Demonstration

- 5 Days cooking demo visual
- Each day has 3 recipes (15 recipes in total)
- Use together with the Recipe book

Recipe Day 1



Breakfast Nasi Goreng Cina



Lunch Aglio Olio Ikan Bilis



Dinner Ikan Cencaru Sambal Cili

Recipe Day 2



Breakfast Sandwich Telur



Lunch Tom Yam Seafood



Dinner Ayam Goreng Kunyit

Recipe Day 3



Breakfast Tropical Fruits Overnight Oatmeal



Lunch Ikan Bakar Ala Portugis



Dinner Ayam Bersos Lemon

Recipe Day 4



Breakfast Tosei Oat



Lunch Telur Bistik



Dinner Sup Makaroni Udang

Recipe Day 5



Breakfast Casserole Telur



Lunch Ikan Siakap Kukus Limau Nipis



Dinner Nasi Goreng Kerabu

* These videos can be downloaded from www.moh.gov.my/index.php/pages/view/1937

or link to youtube: https://youtu.be/kCsRJQH-SAI
https://youtu.be/bVMgHDEMT24
https://youtu.be/qUqYqIK90cY
https://youtu.be/2hmZRdaZ5Kk

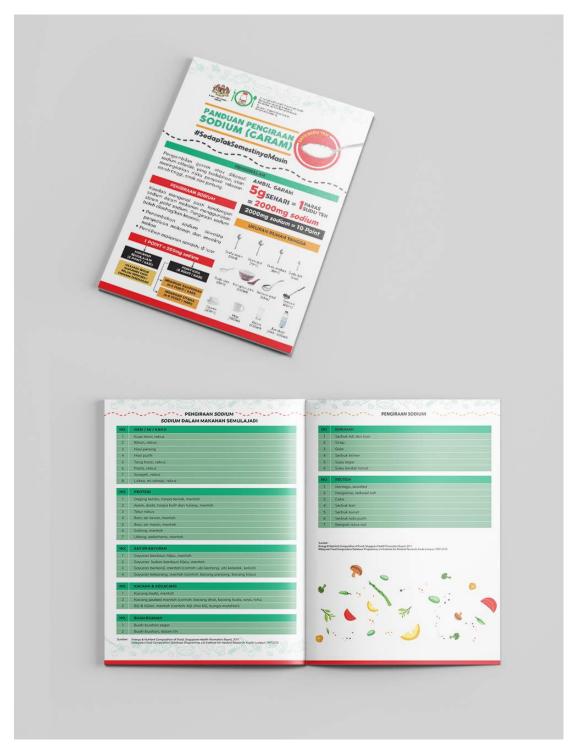
https://youtu.be/vZzPG065Lug

Recipe Book



* This Recipe book can be downloaded from www.moh.gov.my/index.php/pages/view/1937

Point System Brochure



* This brochure can be downloaded from www.moh.gov.my/index.php/pages/view/1937

Example Evaluation Framework - Consumer Awareness Campaign

Salt reduction

It is vital to ensure you are clear about what your campaign is endeavouring to achieve through the setting of clear campaign objectives, i.e. the awareness, knowledge, attitudes and behaviours. Evaluating a campaign not only measures how it performs against its objectives, it also highlights good management, lessons for future campaigns and projects, and importantly shows accountability for your work.

Evaluation checklist

Objectives that will be measured (S.M.A.R.T)				
Measurements be taken before the project is implemented – baseline				
Measurements be taken during the project implementation				
Measurements be taken at the end of the project				

Indicators at individual level

Awareness
Knowledge
Attitudes
Practice

Indicators at group level

Change to policies
Change to environment
Change in group attitudes
Change in group beliefs
Change in group behaviour





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Non Communicable Disease Section

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