



# **SALT REDUCTION STRATEGY**

## **TO PREVENT AND CONTROL NCD FOR MALAYSIA 2015-2020**





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FOR MALAYSIA  
2015-2020**



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First Edition 2015

Produced & Distributed by :

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ISBN 978-967-0769-52-3

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## Message From Director General of Public Health



Non-Communicable Diseases (NCD), mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes are the world's biggest killer contributing to the burden of premature death between the ages of 30 and 70 years. Most of these premature deaths are largely preventable. WHO's global monitoring framework on NCD track the implementation of the Global Action Plan for the Prevention and Control Of Non-Communicable Diseases 2013-2020. There are 9 voluntary global targets aim to reduce premature death by 25% by the year 2025. One of the voluntary target is reducing the mean population intake of salt/sodium by 30% by the year 2025.

In Malaysia, the global action plan for prevention and control of NCD is outlined in The National Strategic Plan for NCD. The current NSP NCD 2016-2020 overarching eight national strategic plans including Salt Reduction Strategy To Prevent And Control NCD for Malaysia 2015-2020. The publication of this document is the first step towards outlining salt reduction initiatives in Malaysia. This documents outline 3 main strategies i.e monitoring, awareness and product, that will be adopted not only by Ministry of Health, but by all relevant stakeholders including the industries. Monitoring involves population based survey to determine the mean population intake of sodium and development of food composition database application. In the year 2012, our mean salt intake was 8.7 gm/day, hoping to achieve the long term target of 7.4 gm salt/day by the year 2020. Health education and communication through mass media campaigns and social marketing create awareness to the general population as well as specific target groups including school children, food operator and consumer association. The third strategy focus on product reformulation through partnership with food industries.

We hope this document will be used as a reference and the strategies will be implemented by all stakeholders including the private sector, NGOs and relevant agencies. Successfull implementation of this strategic plan will not be possible without your active participation. Hence, we have to act now to further reduce the salt intake behaviour through salt reduction initiatives in Malaysia.

A handwritten signature in black ink, appearing to be 'Noor Hisham', written in a cursive style.

**YBHG. DATUK DR. NOOR HISHAM BIN ABDULLAH**

Director General of Health Malaysia  
Ministry of Health, Malaysia

## Message From The Deputy Director General of Public Health



I would like to congratulate the Chairman and Technical Working Group involved in the development of the Salt Reduction Strategy to Prevent and Control NCD for Malaysia 2015 to 2020. This Salt Reduction Strategy is developed in line with the Global Action Plan by WHO 2013 to 2025 to prevent and control NCD in Malaysia. This document will be part of the National Strategic Plan for NCD 2016-2020.

Based on NHMS 2015, the prevalence of hypertension is 30.3%, showing a reduction of 2.4% compared to the year 2011. WHO confirmed that salt reductions is the simplest and most cost effective measure to reduce stroke and other cardiovascular diseases such as hypertension. A study conducted in 2012 showed that the mean salt intake in Malaysia was 8.7 gram per day or equivalent to 3.4 gram of sodium per day, which is 1.7 times higher than the WHO recommendation of 5 gram per day. However a lot more need to be done in prevention and control of hypertension as the Global NCD target is 25% reduction of hypertension by the year 2025.

Malaysia has started its salt reduction initiatives since 2011, focussing on health promotion and education to create awareness regarding salt and its health impact to the general population including focus group like school children and media. This document outline a more comprehensive strategies and activities involving other government and non government stakeholders. The overall objectives are to increase awareness, strengthen policies, promote research, promote partnership and engagement with food industries. The document also outline indicators to be monitored to ensure those activities can contribute to the reduction of hypertension and premature NCD death in Malaysia.

I urge all stakeholders to use this document as guidance to the implementation and monitoring of the progress of the prevention and control for NCD.



**YBHG. DATUK DR. LOKMAN HAKIM BIN SULAIMAN**

Deputy Director General of Public Health  
Ministry of Health, Malaysia

## Executive Summary

High blood pressure is the biggest risk factor for overall deaths for Malaysians, both male and female. The amount of dietary salt/sodium consumed is an important determinant of blood pressure levels and of hypertension risk. This relationship is direct and progressive with no apparent threshold, and salt reduction in individuals is an important intervention in reducing blood pressure and reducing the risk of premature deaths due to heart attacks and strokes among Malaysians. Salt reduction is the simplest and most cost-effective measure for reducing cardiovascular diseases because of its high impact on health, high feasibility and low implementation costs.

To accelerate national efforts to address Non-Communicable Diseases (NCDs), the World Health Assembly in 2013 had adopted the Global Monitoring Framework and 9 voluntary global targets, that included (i) a 30% relative reduction in the mean population intake of salt/sodium and (ii) a 25% relative reduction in the prevalence of raised blood pressure. The general objective of this Salt Reduction Strategy for Malaysia 2015-2020 is to promote, educate and to collaborate with all related stakeholders to reduce salt intake among the Malaysian population, working towards achieving the voluntary global targets by year 2025, with the ultimate aim of reducing the burden of NCDs in Malaysia. This Salt Reduction Strategy is one of the components of the over-arching National Strategic Plan for Non-Communicable Diseases for Malaysia.

This document outlines the 3 M-A-P strategies for Malaysia i.e. (i) **M**onitoring; (ii) **A**wareness; and (iii) **P**roduct; with a list of activities under each strategy in the Plan of Action. The Plan of Action for 2015-2020 also clearly outlines the process and output indicators and targets, with the long-term target being a mean salt intake of adult population of 7.4 gm salt/day by year 2020.

Effective implementation of the Salt Reduction Strategy requires a multi-sectoral approach, involving many stakeholders including the private sector, NGOs and civil society. Through a realistic, step-wise Plan of Action, building on the 3 M-A-P strategies, Malaysia hopes that the interventions would contribute significantly in reducing the burden of NCDs in Malaysia.



## 1 | Introduction

### 1.1 Overview

Salt is a double-edged sword when not handled with care. While a little salt may enhance the flavour of food, over consumption can raise blood pressure (BP), which in turn is a significant risk factor for cardiovascular diseases. Increased salt intake can raise BP, along with low fruit and vegetables consumption (low potassium), increased alcohol intake, obesity and a lack of physical activity<sup>1</sup>. However the diversity and strength of the evidence is greatest for salt than for any other factor. Even small dietary salt reductions can lower BP and the incidence of stroke and heart disease. Studies have estimated that a reduction in daily intake of about 1 gram can lower blood pressure by an average of 2 mmHg, which can reduce the incidence of stroke by about 10% and that of heart diseases by 5%<sup>2</sup>.

Salt reduction is the simplest and most cost-effective measure for reducing stroke and other cardiovascular diseases because of its high impact on health, high feasibility and low implementation cost. This is because salt reduction strategies directed towards the whole population are considered to be at least as cost-effective as tobacco control<sup>3</sup>. Furthermore the benefits of salt reduction have been recognised on a global scale: The Director General of WHO Dr Margaret Chan acknowledged salt reduction as “one of the most cost effective, feasible and affordable health interventions”. Salt Reduction has been identified as a priority intervention for the prevention of Non-Communicable Diseases (NCD)<sup>4</sup>.

Without strategic interventions to reduce salt intake, we will likely see an increase in the prevalence of hypertension and potentially more fatalities resulting from cardiovascular diseases. Globally, 51% of the incidence of stroke and 45% of deaths from ischemic heart disease is associated with high systolic blood pressure. Globally 3 million women and 2.5 million men die from stroke each year<sup>5</sup>. In addition to hypertension, it is also widely recognized that a high salt diet is linked to other conditions such as osteoporosis, stomach cancer, kidney disease, kidney stones, obesity and exacerbating the symptoms of asthma, Meniere's disease, Alzheimer's disease and diabetes. There is now evidence to show that a high salt intake in children also influences blood pressure and may predispose an individual to the development of a number of diseases in later life.

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<sup>1</sup>He and MacGregor, 2010

<sup>2</sup>World Health Organization, 2010

<sup>3</sup>Asaria *et al.*, 2007

<sup>4</sup>Brinsden and Farrand, 2012

<sup>5</sup>World Health Organization, 2013



The physiological requirement for salt is less than 1 gram per day, however most populations are eating between 9 to 12 grams. WHO and the Food and Agriculture Organization of the United Nations (FAO) have recommended an average reduction of salt (sodium chloride) intake per person to less than 5 gm/day (2 gm of sodium). In many high-income countries, approximately 75% of salt in the diet comes from processed foods and meals prepared outside the home. In many low-and middle-income countries, most sodium consumption comes from salt added at home in cooking and at table or through condiments such as fish sauce and soy sauce.

Decreasing dietary salt intake from 9 to 12 grams/day to the recommended level of less than 5 grams/day would have a major impact on BP and cardiovascular disease, averting up to 2.5 million deaths due to heart attacks and stroke worldwide each year. Evidence supports salt reduction strategies as a best-buy in the prevention of NCDs. This has been demonstrated in countries with salt initiatives, such as Finland, Ireland, Japan and United Kingdom, which have demonstrated some positive and measurable results. Data from Finland and United Kingdom have shown that over a period of 7 to 10 years, the mean population intake of salt per day can be reduced to 30%.

### 1.2 NCD Global Action Plan and Global Targets

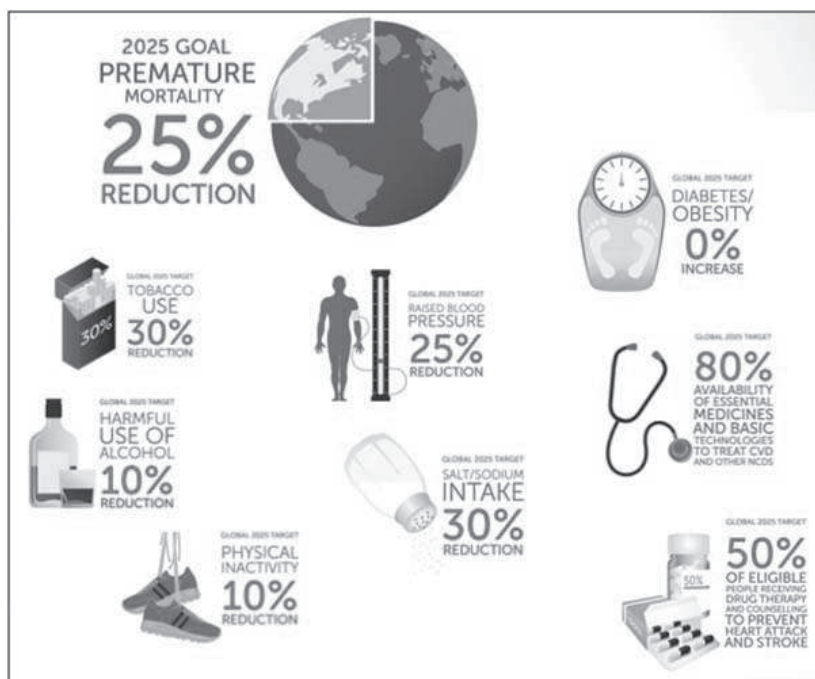
In September 2011, world leaders agreed on a roadmap of concrete commitments to address the global burden of NCDs, including a commitment to establish multisectoral action plans and policies for the prevention and control of NCDs. To accelerate national efforts to address NCDs, in 2013 the World Health Assembly adopted a comprehensive global monitoring framework with 25 indicators and nine voluntary global targets for 2025 (Figure 1: Nine indicators with voluntary global targets). The World Health Assembly also endorsed a set of actions organized around the WHO Global Action Plan for the Prevention and Control of NCD 2013-2020 (Global NCD Action Plan 2013-2020) which, when implemented collectively by Member States, international partners and WHO, will help to achieve the commitments made by world leaders in September 2011.

## Global Target 4 :

### A 30% Relative Reduction In The Mean Population Intake of Salt/Sodium

Globally, 1.7 million annual deaths from cardiovascular causes have been attributed to excess sodium intake. WHO recommends a reduction in salt intake to less than 5 gm/day (2 gm/day of sodium) to reduce blood pressure and the risk of coronary heart disease and stroke.

The main source of salt in many countries is processed foods and ready-made meals, while salt added during the preparation of food at home and at the table is significant in others. With the greater availability of processed foods in low- and middle-income countries, sources of sodium are shifting rapidly towards these foods. Sodium-reduction targets need to be established for each category of food, prioritising the ones that contribute most to population intake. Policies aimed at reducing population-wide salt consumption should be inter-sectoral and multi-disciplinary and include the participation of all relevant stakeholders.



**Figure 1 :** Nine NCD indicators with voluntary global targets<sup>6</sup>

<sup>6</sup> World Health Organization, 2013. Source of icons: World Heart Federation Champion Advocates Programme

They should be applicable to diverse settings and make use of all available tools, including labelling, legislation, product reformulation, fiscal incentives that encourage the production and consumption of foods with reduced sodium content, and consumer education to ensure their effective implementation.

## Global Target 6 :

### A 25% Relative Reduction in The Prevalence of Raised Blood Pressure

Raised BP is estimated to have caused 9.4 million deaths and 7% of disease burden (DALYs) in 2010. If left uncontrolled, hypertension causes stroke, myocardial infarction, cardiac failure, dementia, renal failure and blindness. Many modifiable factors contribute to the high prevalence rates of hypertension. They include eating food containing too much salt and fat, inadequate intake of fruits and vegetables, overweight and obesity, harmful use of alcohol, physical inactivity, psychological stress, socioeconomic determinants, and inadequate access to health care. Worldwide, detection, treatment and control of hypertension are inadequate, owing to weaknesses in health systems, particularly at the primary care level.

In order to achieve this target, population-wide policies and interventions are required to address these modifiable risk factors. In addition, integrated programmes need to be established at the primary care level, to improve the efficiency and effectiveness of detection and management of hypertension and other cardiovascular risk factors through a total-risk approach, as recommended by WHO.

## 1.3 Burden in Malaysia

The prevalence of hypertension in Malaysia is currently at 32.7% for adults age 18 years and above<sup>7</sup>. Based on the latest age-standardised adjusted estimates published by WHO, Malaysia's prevalence of high BP is higher compared to neighbouring Singapore and Thailand<sup>8</sup>. Based on Malaysia's latest Burden of Disease Study published in 2014, high blood pressure is estimated to cause 42.2% of deaths and 21.6 % of disease burden (DALY), the largest contributor for both men and women<sup>9</sup>.

<sup>7</sup>Ministry of Health, Malaysia, 2012: National Health and Morbidity Survey 2011

<sup>8</sup>World Health Organization, 2015

<sup>9</sup>Noor Azah D *et al.*, 2014

Data obtained through dietary surveys generally tend to underestimate salt/sodium intakes, as compared to data obtained via 24-hour urine analysis considered as the “gold standard” method to estimate salt intake in the population. An analysis demonstrated that the mean salt intake from the Malaysian Adult Nutrition Survey (MANS) 2004 was substantially lower than estimates from countries using 24-hour urine analysis<sup>10</sup>. Subsequently a study was conducted to estimate salt/sodium intake using 24-hour urine analysis together with 24-hour dietary recall in 2012<sup>11</sup>. This study showed an average intake of **8.7 gm/day** or 3.4 gm/day sodium, which is 1.7 times higher than WHO recommendation. Men had higher intake of sodium compared to women (3.7 versus 2.9 gm/day).

The same study also found that soy sauce was the most popular seasoning consumed daily which contributed to the highest daily sodium intake. Fried rice, nasi lemak, fried meehoon and soups were also major sources of sodium, followed by roti canai, oyster sauce, anchovy sauce and tomato/chilli sauce. This is comparable to data from Singapore as shown in **Table 1**<sup>12</sup>.

**Table 1** : Main sources of salt in the diet of Singapore’s population (2010)<sup>12</sup>

Food	Contribution
<b>Salt and Sauces</b> <ul style="list-style-type: none"> <li>Used in cooking at home and outside.</li> <li>Includes soy sauce, oyster sauce, stock powder, sambal and pastes.</li> </ul>	60%
<b>Processed Food</b> <ul style="list-style-type: none"> <li>Includes breads, noodles and surimi products (e.g. fish balls, fish cakes and crab sticks).</li> </ul>	37%
<b>Fresh Food</b> <ul style="list-style-type: none"> <li>Naturally-occurring salt in raw food such as meats and vegetables.</li> </ul>	3%

<sup>10</sup>Health Promotion Board, Singapore, 2011

<sup>11</sup>Rashidah *et al.*, 2014

<sup>12</sup>Health Promotion Board, Singapore, 2011

## 2 | Objectives

The general objective of the Salt Reduction Strategy for Malaysia 2015-2020 is to promote, educate and collaborate with all related stakeholders to reduce salt intake among the Malaysian population, working towards achieving the 30% global reduction target by year 2025, with the ultimate aim of reducing the burden of NCDs in Malaysia.

The specific objectives are :

1. To raise the level of awareness on the issue of salt in the prevention of NCD and its cost effectiveness;
2. To establish and strengthen national policies and plans for the prevention and control of NCDs through salt reduction initiatives;
3. To implement intervention to reduce the shared modifiable risk factors for NCDs especially unhealthy diet;
4. To promote research for the prevention and control of NCDs especially salt intake research, salt content in the food and product reformulation;
5. To promote partnership among different organizations for the prevention and control of NCD especially reduction of salt to prevent NCDs;
6. To engage food manufacturers or industries to reduce salt in foods.
7. To monitor and evaluate the progress of salt reduction initiatives and its effectiveness.

This Salt Reduction Strategy is one of the components of the overarching National Strategic Plan for Non-Communicable Diseases (NSP-NCD) for Malaysia.

## 3 | Principles and Approaches

During the Western Pacific Regional Consultation on Strategies to Reduce Salt Intake in Singapore, on 2-3 June 2010, several recommendations for priority actions on salt reduction at national levels were made, which included<sup>13</sup>:

- A. Strategies adopted should include :
  - i. Measurement, monitoring and evaluation;
  - ii. Reformulation - including target setting and working with local suppliers to reduce salt in foods;
  - iii. Improved nutrition labelling; and
  - iv. Consumer awareness and behaviour change.
- B. For developing salt reduction networks :
  - i. Existing NCD prevention and related networks should be used to regularly update and exchange information on salt reduction activities where they exist and operate effectively; and
  - ii. Consider establishing sub-regional and regional networks which can support the development and implementation of salt reduction strategies.

Malaysia is still at the early stage of implementing the salt reduction strategy that started in 2010 when the Ministry of Health announced to commit to reduce the salt content in 11 food items. A technical working group was subsequently formed to raise awareness and promote salt reduction in Malaysia, consisting of several Divisions within MOH, based on the recommendations of the Singapore meeting. During these early stages, Malaysia adopted the following five strategies:

1. Establish baseline data
2. Education and communication
3. Legislation
4. Research and new product development
5. Monitoring and evaluation

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<sup>13</sup>World Health Organization, Western Pacific Regional Office, 2010



## 4 | The “MAP” Strategy for Malaysia

### 4.1 Strategy One : “M” is for Monitoring

For salt intake, WHO has proposed several methodologies. Malaysia should strive for a population-based survey using spot urine with a sub-sample of 24-hour urine analysis to validate the adjustment formulae, together with a food consumption survey. The survey that was conducted in 2012 was on a population of healthcare providers throughout Malaysia<sup>14</sup>.

For salt content, a database on salt content of processed food available in Malaysia must be made available for the purpose of monitoring the current salt content by way of mandatory labelling and product reformulation.

### 4.2 Strategy Two : “A” is for Awareness

Health education and communication continue to play a very important role in the prevention of NCDs. Mass media and social marketing (using alternative media) are very important as ways to educate on the relationship between salt, hypertension and heart attacks or stroke to the general population. The public also needs to be educated on salt content in foods, how to reduce salt intake and understand salt labelling.

In addition to the general populations, interventions must also address different target groups including school children, housewives, food operators/vendors, NGOs and consumer associations, health professionals.

On increasing awareness on low sodium foods and salt substitutes, education of the general population needs to be done based on labelling and available products in Malaysia. All low sodium and salt substitute need to adhere to the Malaysian Food Act requirements in term of claims and labelling.

### 4.3 Strategy Three : “P” is for Product

MOH to continue the current partnership with food industries on food reformulation, to monitor and report progress made by them while keeping an open but firm dialogue with their representatives. Product reformulation can be done by way of focusing on special brands or food categories, setting target to reduce for each food brands or by way of simply raising consumer awareness.

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<sup>14</sup>Rashidah *et al.*, 2014

This also applies to working and/or negotiating with fast food industries or franchised food to prepare healthier options, proper labelling particularly on salt/sodium content easily viewed by consumers at the point of purchase.

Mechanisms must also be created to support small and local food manufacturers in addressing technical issues in reformulating their product, which may include discussions forums and access to food technology experts.

Labelling of sodium content is crucial for educating consumers to identify healthier choices. The labelling content is also very important to inform policy maker to engage industries to reduce the salt content in their product. Therefore MOH must continue efforts to make sodium content labelling as mandatory for all processed foods. The elements of monitoring in term of consistency across the market and compliance by the industries must be done.

Within specific settings, for examples school canteens, catering in civil services, hospital foods or food outlets in hospitals and health facilities, regulations or administrative guidelines should be instituted to reduce salt content in food preparations.

## 5 Operationalising the Strategies

Implementation of this Salt Reduction Strategy requires the engagement of all relevant stakeholders from within the government, non-governmental and the private sector. It is very important to acknowledge that most of the interventions require a multi-sectoral approach.

The proposed Plan of Action for the period 2015-2020 is shown in **Appendix A**. Within the government, in addition to the Ministry of Health and the Malaysian Health Promotion Board (MySihat), several other Ministries and government Agencies have major possible roles in operationalising the Salt Reduction Strategies (**Table 2**). The roles of other related stakeholders are shown in **Table 3**.

**Table 2** : Roles of Key Government Ministries

Ministry		Possible Roles in the Salt Reduction Strategy
1	Education	<ul style="list-style-type: none"> <li>Health education and promotion on salt and CVD risk factors in schools and institutes of higher education.</li> <li>Enforcement of health-promoting environments (e.g. healthy school canteens, healthy cafeterias).</li> <li>School-based salt reduction initiatives (through “Kelab Doktor Muda” platform).</li> </ul>
2	Agriculture & Agro-based Industry	<ul style="list-style-type: none"> <li>Increase the availability of fresh vegetables and fruits to Malaysian at affordable prices to increase consumption.</li> <li>Promotion of fruits and vegetables consumption to increase potassium intake and reduce salt intake.</li> </ul>
3	Domestic Trade, Cooperatives & Consumerism	<ul style="list-style-type: none"> <li>Promotion of healthier food/drink (reduced sodium content) as the affordable and better alternatives for Malaysians.</li> <li>Putting up barriers to unhealthy food/drinks, via regulations or fiscal measures.</li> <li>Promotion of safe salt alternative or substitute.</li> </ul>
4	Ministry of Communication and multimedia	<ul style="list-style-type: none"> <li>Promotion of salt reduction programme and products.</li> </ul>

**Table 3 :** Roles of other Stakeholders

Ministry		Possible Roles in the Salt Reduction Strategy
1	Food and beverages industries	<ul style="list-style-type: none"> <li>• Reformulation of foods product with reduced and low sodium content.</li> <li>• Development of database of reformulated foods with reduced and low sodium content.</li> <li>• Labelling of foods with reduced and low sodium content</li> </ul>
2	Advertising industries	<ul style="list-style-type: none"> <li>• Consumer awareness of foods with reduced and low sodium content.</li> <li>• Promotion of international healthier food/drink (low salt).</li> <li>• Promotion of safe salt alternative or substitute.</li> </ul>
3	NGOs and Professional bodies	<ul style="list-style-type: none"> <li>• Awareness and education to general population and focus group.</li> <li>• Technical adviser and input on salt awareness program or initiatives.</li> </ul>
4	Universities	<ul style="list-style-type: none"> <li>• Research on salt intake for focus group, relationship of salt intake and hypertension, knowledge or awareness on salt, and relationship with disease.</li> </ul>

The Technical Working Group (TWG) for the Salt Reduction Strategy under the Disease Control Division, MOH will continue to provide technical guidance and recommendations in operationalising this Salt Reduction Strategy. The membership and terms of reference (TOR) of this TWG is shown in Appendix B.

Engagement of the various related stakeholders will be done based on the proposed interventions or strengthening existing interventions in an ad hoc basis, using existing multi-sectoral committees as much as possible. Engagement at the highest level of government will be through the “Cabinet Committee for A Health Promoting Environment”, chaired by the Deputy Prime Minister of Malaysia, formed under the mandate of the National Strategic Plan for Non-Communicable Diseases (NSP-NCD).

## 6 | Monitoring and Evaluation

Based on the “MAP” Strategy for Malaysia, the output indicators, short- and intermediate-term indicators and targets for 2020 is shown in the “Plan of Action” in **Appendix A**. The medium-and long-term indicators and targets are shown in **Table 4**.

**Table 4** : Medium- and Long-term Indicators and Targets

Medium- and Long-Term Outcome Indicators	Target (2020)
1. Average salt intake of adult population.	7.4 gm salt/day.
2. Morbidity and mortality in adults due to hypertension, cardiovascular diseases and stroke.	15% reduction in DALY for high blood pressure.

## 7 | Conclusion

High blood pressure is the biggest risk factor for overall deaths for Malaysians, both male and female. The amount of dietary salt/sodium consumed is an important determinant of blood pressure levels and of hypertension risk. Current data estimates that adult Malaysians average intake of salt is 8.7 gm/day, much higher than WHO recommendation of 5 gm/day. Our major sources of sodium are soy sauce, fried rice, nasi lemak, fried meecheon, soups, roti canai, oyster sauce, anchovy sauce and tomato/chilli sauce - all commonly eaten food prepared at home or outside of home in food stalls and restaurants.

Based on these major sources of sodium, modification of the populations' behaviour would have the biggest impact, but unfortunately the intervention would be the most challenging. The food industries must play a strong role in reformulating the products that have high salt/sodium contents. Through the M-A-P strategies, we hope to build upon existing work in a more systematic approach. The Plan of Action for 2015-2020 clearly outlines the process and output indicators and targets, with the long-term target being a mean salt intake of adult population of 7.4 gm salt/day by year 2020.

Effective implementation of the Salt Reduction Strategy requires a multi-sectoral approach, involving many stakeholders including the private sector, NGOs and civil society. Through a realistic, step-wise Plan of Action, building on the 3 M-A-P strategies, Malaysia hopes that the interventions would contribute significantly in reducing the burden of NCDs in Malaysia.

If we fail to reduce the amount of salt/sodium consumed by our population, the prevalence of hypertension will remain high, which in turn will contribute significantly to premature mortality due to cardiovascular diseases. As such, we will not be able to significantly reduce the burden of NCDs in Malaysia.



## Glossary

BP	Blood pressure
CVD	Cardiovascular diseases
DALY	Disability adjusted life-years
FAO	Food and Agriculture Organization of the United Nations
MOH	Ministry of Health
NCD	Non-Communicable Diseases
NGO	Non-governmental organisation
NSP-NCD	National Strategic Plan for Non-Communicable Diseases
WHO	World Health Organization

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## Appendices

Appendix A	Plan of Action for Salt Reduction in Malaysia, 2015-2020
Appendix B	Terms of Reference for Technical Working Group (TWG) for the Salt Reduction Strategy

## Appendix A

### Plan of Action for Salt Reduction in Malaysia, 2015-2020

Strategy	Activities	Action by	Indicators	Targets
<b>Monitoring (M)</b>	1. Population-based survey using the existing survey among the health staff as a proxy by using 24-hour urine analysis, conducted every four years.	<ul style="list-style-type: none"> <li>Disease Control Division.</li> <li>Institute of Public Health.</li> <li>Nutrition Division</li> <li>Health States Department.</li> </ul>	Published report.	Reports published in 2016 and 2020.
	2. Creation of a database on salt content of processed food, with data available to the public.	<ul style="list-style-type: none"> <li>Nutrition Division.</li> </ul>	Web-based application.	Operational by year 2018.
	3. Research on salt intake among specific groups.	<ul style="list-style-type: none"> <li>National Institutes of Health, MOH.</li> <li>Academia.</li> </ul>	Number of papers published.	5 scientific papers per year.
<b>Awareness (A)</b>	4. Health promotion and education.	<ul style="list-style-type: none"> <li>Health Education Division.</li> <li>Disease Control Division.</li> <li>Nutrition Division.</li> <li>MySihat.</li> <li>Professional Associations.</li> <li>NGOs.</li> <li>Health States Department.</li> </ul>	Number of Resource tool kit.  KAP survey in target groups.	Tool kit published annually.  Significant increase in KAP.
	5. Incorporating salt reduction interventions into KOSPEN.	<ul style="list-style-type: none"> <li>Disease Control Division.</li> </ul>	Resource tool kit.	Published by 2017.
	6. Promotion through mass media and social media.	<ul style="list-style-type: none"> <li>Health Education Division.</li> <li>Nutrition Division.</li> <li>Corporate Communication Unit (UKK), MOH.</li> </ul>	Number of newspaper articles, television and radio slots.	20 per year.
<b>Products (P)</b>	7. Product reformulation of high-salt content processed foods.	<ul style="list-style-type: none"> <li>Nutrition Division.</li> <li>Federation of Malaysian Manufacturers.</li> </ul>	Number of products with reduced salt/sodium content.	5 products per year.
	8. Labelling of sodium content in processed foods.	<ul style="list-style-type: none"> <li>Food, Quality &amp; Safety Division.</li> </ul>	Compulsory labelling.	2018.

## Appendix B

### Technical Working Group (TWG) for the Salt Reduction Strategy

#### Membership

Deputy Director (NCD), Disease Control Division, MOH - Chair

Members :

1. NCD Section, Disease Control Division, MOH (2 members)
2. Nutrition Division, MOH (2 members)
3. Food Safety and Quality Division, MOH
4. Health Education Division, MOH
5. Family Health and Development Division (Primary Care), MOH
6. Health Promotion Board Malaysia (MySihat)
7. Institute for Public Health, MOH
8. Malaysian Dietitians' Association (MDA)
9. Nutrition Society of Malaysia (NSM)
10. Malaysian Society of Hypertension (MSH)
11. Malaysian Alliance of Salt Reduction Initiatives (MASRI)

#### Terms of Reference

1. To provide technical input on the program for salt reduction initiatives in Malaysia to further strengthen the activities and program in the country.
2. To identify the appropriate method for salt reduction campaign and awareness by target groups.
3. Establish and strengthen smart partnerships between different sector (agencies, industries, Professional Associations or NGOs) and other stakeholders.
4. Platform for discussion, sharing and dissemination of information on salt reduction activities.
5. Coordinate and monitor the implementation and achievements of the salt reduction campaign and activities done at the national level and by various sectors and stakeholders.

# SALT REDUCTION STRATEGY

TO PREVENT AND CONTROL NCD  
FOR MALAYSIA 2015-2020



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ISBN 978-967-0769-52-3

