STATUS OF NONCOMMUNICABLE DISEASES (NCDS) IN MALAYSIA: AN URGENT CALL FOR ACTION.

BY: DR ZAINAL ARIFFIN OMAR AND DR FEISUL IDZWAN MUSTAPHA
Outline of the presentation

• Terminology of NCD
• Current Disease Burden
• Future projections
• Focus of WHO
• MALAYSIA ‘ Responses
• Commitments
• Challenges
• Key messages
Noncommunicable diseases (WHO)

- Diseases which are not transmissible.
- Includes:
  - CVDs (heart disease & stroke),
  - Cancer
  - Chronic respiratory diseases
  - Diabetes
  - Mental health disorders
  - Substance abuse
  - Injuries (including caused by violence)
  - Others: vision & hearing impairment, oral diseases, bone & joint disorders, and genetic disorders.
National Health and Morbidity Surveys

• Also known as NHMS
• Population-based survey conducted by MOH
  • Latest NHMS 2011
• For NCD risk factors, now conducted every 4 years
  • Based on WHO STEPwise Methodology
• Sampling Frame:
  • National Household Sampling Frame made up of Enumeration Blocks (EBs) derived from the Population and Housing Census, Malaysia (2010)
• Sampling Design:
  • Multistage Random Sampling (28 strata)
THE CAUSATION PATHWAY FOR NCD

**Underlying Determinants**
- Globalisation
- Urbanisation
- Population Ageing

**Common Risk factors**
- Unhealthy diet
- Physical Inactivity
- Tobacco & Alcohol use
- Age (non modifiable)
- Heredity (non modifiable)

**Intermediate Risk Factors**
- Overweight/obesity
- Raised blood sugar
- Raised blood pressure
- Abnormal blood lipids

**Main NCD**
- Heart Disease
- Diabetes
- Stroke
- Cancer
- Chronic resp. diseases

NCDs : DISEASE BURDEN
NHMS 2011, DEFINITIONS

BMI STATUS (WHO 1998)
Overweight: 25.0 to 29.9 kg/m²
Obese ≥30 kg/m²

ABDOMINAL OBESITY (WHO 2000)
Waist circumference
Men ≥90 cm
Women ≥80 cm

- Prevalence of Overweight and Obesity, ≥18 years
- NHMS II (1996)
- NHMS III (2006)
- NHMS 2011

Prevalence (%)

- Overweight:
  - NHMS II (1996): 16.6%
  - NHMS III (2006): 29.1%
  - NHMS 2011: 29.4%

- Obesity:
  - NHMS II (1996): 4.4%
  - NHMS III (2006): 14.0%
  - NHMS 2011: 15.1%
Prevalence of Overweight & Obesity, ≥18 years, by Location (2011)

- Overweight:
  - Urban: 29.4%
  - Rural: 29.4%

- Obese:
  - Urban: 15.3%
  - Rural: 14.4%
Prevalence of Obesity, ≥18 years, by age groups (2011)
Prevalence of Abdominal Obesity, ≥18 years, by Age groups (2011)

- Total diabetes
- Known
- Undiagnosed
- IFG

NHMS II (1996):
- Total diabetes: 8.3
- Known: 6.5
- Undiagnosed: 4.3
- IFG: 1.8

NHMS III (2006):
- Total diabetes: 14.9
- Known: 9.5
- Undiagnosed: 5.4
- IFG: 4.7

NHMS 2011:
- Total diabetes: 20.8
- Known: 10.7
- Undiagnosed: 10.1
- IFG: 5.3
Prevalence of Diabetes, ≥18 years, by age groups (2011)
Prevalence of Diabetes, ≥18 years, by age groups (1996, 2006 & 2011)
HOW DO WE COMPARE TO OUR NEIGHBOURING COUNTRIES?
OVERWEIGHT IN ADULTS, ASEAN REGION, 2010
OBESITY IN ADULTS, ASEAN REGION, 2010
HIGH BLOOD SUGARS IN ADULTS, ASEAN REGION, 2010
WHAT’S THE FUTURE? – PROJECTIONS...
Burden of Obesity in Malaysia: Trends & Projections by 2020 (Adults age 18 years and above)

Current projection
Burden of Diabetes in Malaysia: Trends & Projections by 2020 (Adults age 18 years and above)
Admissions to MOH Hospitals due to Circulatory Diseases & Cancer: Projections by 2020

\[ y = 130995e^{0.0208x} \quad R^2 = 0.7959 \]

\[ y = 53166e^{0.0523x} \quad R^2 = 0.8716 \]
Deaths in MOH Hospitals due to Circulatory Diseases & Cancer: Projections by 2020

- Circulatory diseases
- Malignant neoplasms

Projected, Circulatory diseases — Projected, Cancer

y = 605.97x + 8657.9
R² = 0.9027

y = 305.31x + 3776.1
R² = 0.9542
Primary Renal Diseases: Projections by 2020

New dialysis patients

$y = 314.5x + 1735.7$

$R^2 = 0.9634$

New dialysis patients

Projected new dialysis patients
NCD prevention and control – Focus of WHO

1. National multi-sectoral policy and plan within the national health and development plan

2. Population based, multi-sectoral actions for risk reduction

3. Health system strengthening for NCD prevention and management

4. Surveillance, monitoring and reporting

5. Sustainable partnerships and advocacy
National Policy and Plan for NCD

National Development Agenda

- Other Ministries
- Partners
- Multisectoral coordination mechanisms

National Health Plan

- Resources
- NCD Multisectoral Plan
  - Identified budget
Outcome of risk reduction

At least 80% of CVD, Type 2 DM and 40% of cancers could be avoided through a healthy diet, regular physical activity and avoidance of tobacco.
Population Based Multisectoral Actions For NCD Risk Reduction: Control Of Tobacco

- 10 % reduction in tobacco use by 2014
- Tobacco taxation and Health Promotion Foundations
- Plain packaging- a path-breaking approach
MALAYSIA’S RESPONSE...
National Strategic Plan for Non-Communicable Diseases (NSP-NCD) 2011-2015

- Presented and approved by the Cabinet on 17 December 2010
- Provides the framework for strengthening NCD prevention & control program in Malaysia
- Adopts the “whole-of-government” and “whole-of-society approach”

Seven Strategies:
1. Prevention and Promotion
2. Clinical Management
3. Increasing Patient Compliance
4. Action with NGOs, Professional Bodies & Other Stakeholders
5. Monitoring, Research and Surveillance
6. Capacity Building
7. Policy and Regulatory interventions
To support the implementation of NSP-NCD, the Cabinet on 17 December 2010 approved the establishment of a Cabinet-level committee, chaired by the Right Honourable Deputy Prime Minister, and comprises of 10 members:

1. Minister of Health
2. Minister of Education
3. Minister of Information, Communications, Arts & Culture
4. Minister of Rural & Regional Development
5. Minister of Agriculture and Agro-based Industry
6. Minister of Youth & Sports
7. Minister of Human Resource
8. Minister of Domestic Trade, Co-operatives and Consumerism
9. Minister of Housing and Local Governments
10. Minister of Women, Family and Social Affairs

**Main TOR:** To determine policies that creates a living environment which supports positive behavioural changes of the population towards healthy eating and active living
Strategy 7: Policy & Regulatory Interventions

- Main thrust of NSP-NCD
- Health promotion and education will increase awareness and knowledge
  - However changes in behaviour is strongly influenced by our living environment

Awareness → Knowledge → Behavioural Change

Health promotion & educations → Supportive living environment → Policies & regulations
Policy & Regulatory Interventions

Guideline on Marketing of food and beverages to children
  • Involvement of industries

Healthy eating environment in schools
  • New guideline on school canteen food & beverages
  • Banning of sale of food & beverages by mobile vendors outside of school perimeters

Commitment of industries
  • Decrease the salt, sugar and fat content in food and beverages
  • Improvement of food labels

Continued…..
Policy & Regulatory Interventions

Health-promoting workplaces in the public sector
- Healthy menus during meetings
- Healthy vending machines

Anti-obesity Law, year 2020
- Looking at Japan as an example

Salt reduction Strategy for Malaysia
- Formalising and strengthening current efforts in Malaysia
# Potential policy interventions to improve dietary intake for preventing obesity in Malaysia

<table>
<thead>
<tr>
<th>Policy areas</th>
<th>Potential policy interventions</th>
</tr>
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<tbody>
<tr>
<td><strong>Fiscal</strong></td>
<td>1. Removal of subsidies on sugar, for both industries and households.</td>
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<tr>
<td></td>
<td>2. Removal of subsidies on cooking oil, for both industries and households.</td>
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<td>3. Introduce subsidies for fruits and vegetables.</td>
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<td></td>
<td>4. Introduce excise and/or sales tax on soft drinks.</td>
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<td></td>
<td>5. Introduce excise and/or sales tax on sweetened condensed milk.</td>
</tr>
<tr>
<td><strong>Primary production and imports</strong></td>
<td>1. Incentives for farmers to grow local fruit and vegetable.</td>
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<td></td>
<td>2. Reducing import duty on fruits and vegetables.</td>
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<tr>
<td></td>
<td>3. Increasing import duty on cooking oils and other fat sources (e.g. butter, ghee).</td>
</tr>
<tr>
<td><strong>Food processing</strong></td>
<td>1. Regulate maximum content of sugar and fat in processed food products.</td>
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<tr>
<td></td>
<td>2. Incentives (e.g. Healthy Choice endorsement) for industries to improve food composition.</td>
</tr>
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This policy-mapping analysis grid is adapted from G. Sacks, B. Swinburn & M. Lawrence: Obesity Policy Action framework and analysis grids for a comprehensive policy approach to reducing obesity. Obesity Reviews (2008)
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<td><strong>Food marketing / information</strong></td>
<td>1. Comprehensive restrictions for all marketing of unhealthy food to children under 16 years in all media, including television, the internet and other electronic media.</td>
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<td>2. Introduce a nutrition signposting system (Healthy Choice tick, keyhole or traffic light labelling) as a front pack labelling to indicate food products with less fat, sugar and salt, and more whole grain and fibre.</td>
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<td>3. Banning television advertising of foods high in fat and/or high in sugar during prime time viewing (7pm to 9pm).</td>
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<td>4. Mandatory for fast food outlets to display nutrition information about each product on menus, menu boards and drive-through boards at the point of sale, and on tags next to self-service cabinets and food displays.</td>
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<td>5. Mandatory for vending machine operators to display nutrition information about the products at the front of vending machines.</td>
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| Food distribution & retail | 1. Limiting the sales of high fat & high sugar food/beverages in schools & learning institutions (canteen, cafeteria & co-operative shop).  
2. Control of vending machines in schools, higher education institutes and public buildings.  
3. Control the licensing for food vendors within close proximity (e.g. <500m) from schools.  
4. Density controls over new fast food outlets, in all areas, both urban and rural.  
5. Restrict retail hours of fast food outlets, restaurants and hawker stalls (e.g. to be closed at 10 pm.)  
6. Compulsory inclusion of healthy choices (e.g. drinking water, low sugar/fat/salt snacks) in vending machines.  
7. Restricting the sale of energy-dense and nutrient-poor foods in workplace canteens.  
8. Compulsory to have a fruit/salad stall at any food outlet in public institutions (e.g. schools, universities, offices, hospitals). |

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### Potential policy interventions to improve dietary intake for preventing obesity in Malaysia

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| **Food service** | 1. Implementation of healthy food service policies in public institutions (e.g. schools, universities, government departments, hospitals).  
2. Mandatory for cafeteria operators and caterers to be trained and accredited on healthy food provisions and preparations.  
3. Compulsory for every food service to include fruits and vegetables in every set meal. |

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Commitment 1: National Leadership & Ownership

By 2013, establish and strengthen multisectoral national NCD policies and plans

Integrate NCD policies and programmes into national health planning and development agendas

Promote whole-of-government approaches across sectors
Commitment 2: Prevention

Promote health in all policies approach

Advance implementation and strengthening of cost-effective, population wide interventions to reduce NCD risk factors

Promote healthy diets through implementation of WHO recommendations on marketing of foods and non-alcoholic beverages to children; the elimination of trans-fats; reduction of salt, sugars and saturated fats; and encourage policies that support production of healthy foods

Increase physical activity by giving greater priority to physical education in schools, urban planning, active transport, work-site healthy lifestyle programmes and increased availability of safe environments in public parks and recreational spaces

Promote the inclusion of NCD prevention and control within sexual and reproductive health and maternal and child health programmes, including breastfeeding for the first 6 months
Commitment 2: Prevention

Guideline on Marketing of food and beverages to children
- TWG formed in January 2012
- Involvement of private sector

Commitment of industries
- Decrease the salt, sugar and fat content in food and beverages
- Improvement of food labels – New front of pack labelling of energy

Continued…..
Commitment 2: Prevention

Healthy eating environment in schools

• New guideline on school canteen food & beverages
• Banning of sale of food & beverages by mobile vendors outside of school perimeters
Commitment 2: Prevention

Health-promoting workplaces in the public sector

- Healthy menus during meetings
- Healthy vending machines
Commitment 2: Prevention

Anti-obesity Law, year 2020

- Looking at Japan as an example

**Stage 1:** School setting (including pre-schools) – targeting school-going children and adolescent. Create an environment which promotes healthy eating and active living;

**Stage 2:** Institutes of higher learning – targeting young adults, again creating an environment that promotes healthy eating and active living;

**Stage 3:** Workplace setting – targeting adults. This will include introducing policies that incorporates certain clinical parameters or criteria to be monitored, as well as policies that encourages healthy eating and active living in the workplaces.
**Commitment 3: Collaborative Partnerships with NGOs**

<table>
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<tr>
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<td>Foster collaborative partnerships between government and civil society</td>
<td>Ensure the full and active participation of people with NCDs in national responses</td>
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<td>Ensure the full and active participation of people with NCDs in national responses</td>
<td>Promote capacity building of NCD-related NGOs at national and regional levels</td>
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</table>
Commitment 3: Collaborative Partnerships with NGOs

- Establishment of the Malaysian Health Promotion Board
  - Also known as “MySihat”; as a statutory body under the MOH in 2006
  - Governed by representatives from relevant Ministries, NGOs and professional
  - The main role of MySihat is to promote the adoption of healthy lifestyles and healthy environment
    - Empowerment of individuals, organisations and communities via trainings and other capacity building initiatives.
    - Special funds – from 2011 onwards, emphasis on NCD risk factor interventions
    - Have produced several training modules (obesity, physical activity, healthy eating, smoking cessation etc.)
Commitment 4: Monitoring & Evaluation

- Strengthen country-level surveillance and monitoring systems
- By 2012, develop a comprehensive global monitoring framework for NCDs and a set of voluntary global targets and indicators
- Consider national targets and indicators
Commitment 4: Monitoring & Evaluation

- Dr Margaret Chan, the Director General of WHO, had said “What gets measured gets done”
Challenges

• The main challenge in policy and regulatory interventions remain that they are mostly under the responsibilities of ministries and departments other than Ministry of Health
  • Ministry of Health needs to take leadership role
  • Need to find a win-win solution – “mutuality of interest”
  • Economic and “political” consideration remains paramount and needs to be acknowledged
  • For Malaysia, the establishment of the Cabinet Committee was an important initial step to achieve the “whole-of-government approach”
Key Messages

1. NCDs are already leading health problems in almost all countries and their magnitude is still increasing
2. Shared risk factors
3. Premature deaths
4. The poor are disproportionately affected
5. Negative impact on socioeconomic development
6. As countries continue to develop, market forces will further promote unhealthy patterns.
7. Action is urgently needed
All Waterfalls Start As Small Streams....
Thank you