THE EFFECTS OF OBESITY TOWARDS THE ECONOMY OF ASEAN COUNTRIES
OBESITY rates among adults in Brunei Darussalam are the highest in the region, with nearly three out of 10 adults found to be obese, according to the 2016 Brunei National Survey on Risk Factors on Non-Communicable Diseases (NCDs) conducted by the Centre for Strategic and Policy Studies (CSPS).

The heavy statistics were laid bare by Minister of Health Dato Seri Setia Dr Haji Mohd Isham bin Haji Jaafar in his message to mark World Obesity Day 2018 yesterday.

The study, commissioned by the Ministry of Health (MoH) and covering a pool of adults aged 18 – 69, was aimed at determining the prevalence of risk factors for NCDs while monitoring the effectiveness of strategies to address NCDs in Brunei.

World Obesity Day was launched in 2015 by the World Obesity Federation and commemorated every October 11, to stimulate practical solutions to help people achieve and maintain a healthy weight in a bid to reverse the obesity crisis.

Obesity is a serious condition as it can lead to more life-threatening health problems such as NCDs like cancer, as well as cardiovascular and diabetic diseases.
**OBJECTIVES**

- **Educate people** regarding lethal effects of obesity
- **Boost economic growth** by increasing productivity and reduce health expenditure
- **Increase health awareness**
- **To achieve UN Goal 3 target (3.D) & other related UN goals. More info: un.org**
FINDINGS
Adult Obesity Rate in ASEAN countries (2007 – 2016)

Source: World Health Organization (WHO)
Adult Obesity Rate in ASEAN countries (2007 – 2016)

Source: World Health Organization (WHO)
Child Obesity Rate in ASEAN countries (2007 – 2016)

Source: World Health Organization (WHO)
Child Obesity Rate in ASEAN countries (2007 – 2016)

BRUNEI

VIETNAM

Source: World Health Organization (WHO)
What Causes Obesity?

POOR DIET

LACK OF PHYSICAL ACTIVITY
Top 5 Causes of Death in 2016 (As a % of Total Death)

**BRUNEI**

1. Stroke: 21.00%
2. Ishaemic Heart Diseases: 19.00%
3. Diabetes Mellitus: 15.00%
4. Cardiovascular Diseases: 10.00%
5. Influenza & Pneumonia: 9.00%
6. Others: 10.00%

**SINGAPORE**

1. Cancer: 23.10%
2. Pneumonia: 17.00%
3. Ishaemic Heart Diseases: 17.00%
4. Chronic Obstructive Pulmonary Disease: 17.00%
5. Alzheimer's Disease: 13.00%
6. Others: 19.00%

Total no. of death in Brunei: 1,632
Total no. of death in Singapore: 20,017

Top 5 Causes of Death in 2017 (Vietnam)

1. Stroke
2. Ishaemic Heart Diseases
3. Lung Cancer
4. Chronic Obstructive Pulmonary Disease
5. Alzheimer's Disease

Population in 2016

- **Brunei**: 417,256
- **Singapore**: 5,607,300
- **Vietnam**: 94,569,072

- Obesity increases the risk of getting life-threatening health problems.
- A study by The Singapore Burden of Diseases revealed that obesity-related diseases had the most impact on health.
- Moreover, obesity contributes the most towards the national disease burden of diabetes.
GDP & Obesity Rate of Brunei Darussalam, Singapore & Vietnam (2007 – 2016)

Based on Regression conducted:
Positive relationship between GDP & Obesity for Singapore and Vietnam
Weak relationship between GDP & Obesity for Brunei

✓ Research conducted by Egger, Swinburn & Islam (2012) shows that there is positive relationship between GDP and Obesity for 175 countries.

✓ According to Deurenberg et al (2001), obesity is associated with extremely large GDP and economic affluence in Singapore.
Health expenditure increases from B$323.8 to B$344.3 in 2017 and 2018 respectively.

Between 2010 – 2014, EIU reported that:

- The direct and indirect costs of obesity amounted to US$10 billion for the six ASEAN countries (Malaysia, Indonesia, Singapore, Philippines, Vietnam & Thailand).
- Singapore incurs the third highest costs (direct and indirect costs arising from obesity) equivalent to between 3% and 10% of national healthcare spending, or US$0.4-1 billion.
- The rates are lowest in Vietnam, at around 1–3% of national healthcare spending.
ECONOMIC IMPACTS OF OBESITY

• Increasing health expenditure
• Loss of productivity
• Early death or early retirement
Implementing AMSO model (Awareness, Motivation, Skills, and Opportunities) introduced by Dr. Michael O’Donnell to create an effective wellness program that improves individual health.

**Awareness**
- Educate people of the healthy lifestyle

**Motivation**
- Clarify how improving health will help achieve a person’s core priorities in life

**Skills**
- Train people in the skills required to learn each new health behavior

**Opportunity**
- Provide abundant opportunities to practice newly learned healthy behaviors.

Communication efforts

Health Fair (Health Screening)

Collected data and inform respective participants via social media e.g. WhatsApp

Awareness

Extrinsic Motivational

Identify participants (health problems)

AMSO MODEL

Objective:
Design to encourage participants to a healthy lifestyle

Duration:
6 months

Target:
Organization & School

Intrinsic Motivational Talk

Set goals achieved in 6 months

Opportunity

Skills

✓ Use guide from social medias into practice
✓ Shared their daily food intakes to WhatsApp group.

Opportunity

Peer Support

Instructor

Healthy Cafe

Exercise

Incentive

Objective:
Design to encourage participants to a healthy lifestyle

Duration:
6 months

Target:
Organization & School

Set goals achieved in 6 months
METABOLIC FINISHERS TO BURN FAT

3 ROUNDS
Farmer's Walk  Jump Rope
40 steps 100
Burpee 20

TWO 5 MIN ROUNDS
Assault Bike Reverse Tabata
10" on/20" off

10 MINUTES
Sled Push 1 length
alternate with
Sled Squat Row 1 length

10 MINUTES
10 Hits/Side 10 Rows
10 Side Crawls

4 ROUNDS
10 Swings 10 Front Squats
5 Push Up Renegade Rows

DESCENDING LADDER
Bench Press Deadlift
12-11-10...to 1

Courtesy from @easyy.diet
FLEXIBLE DIETING
80/20 RULE

Mon 100%
Tues 80%
Wed 80%
Thur 100%
Fri 60%
Sat 60%
Sun 80%

Courtesy from @easyy.diet


