HEALTH in South-East Asia

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This Issue: High blood pressure
Blood pressure – take control
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In this age of urbanization and globalization hypertension is a “silent killer” and the new public health enemy in South-East Asia. Many people do not realize that they have hypertension or are reluctant to start treatment on time putting themselves at risk of heart attacks, strokes, loss of vision and kidney disease. Hypertension kills nearly 1.5 million people every year and is the single most important risk factor for deaths in WHO’s South-East Asia Region.

One in three adults in the Region has hypertension. As the population ages, more and more people are likely to be affected. This is a result of unhealthy lifestyle patterns such as increased consumption of processed foods containing excessive salt, low levels of physical activity, and use of tobacco and alcohol. Increasing levels of mental stress also contribute to the adoption of unhealthy behaviours, putting people at a higher risk of hypertension.

The good news is that hypertension is both preventable and treatable. A holistic approach focused on prevention is required to address risk behaviors that cause hypertension. There is a need to promote healthy lifestyles with increased physical activity to maintain a healthy weight; avoiding tobacco use and limiting alcohol intake; and consumption of a healthy diet that is rich in fruits and vegetables and low in saturated fats, and salt.

A healthy diet includes at least 5 servings of fresh fruits and vegetables every day. Daily salt intake must not exceed 5 grams of salt per person per day which is about one teaspoon. Often our daily diet does not include enough potassium rich foods such as bananas, papaya, spinach, nuts, peas etc. Most people consume too much sodium and not enough potassium. Processed foods tend to be high on salt and low on potassium. It is important to be aware of the salt content of local favorites like pickles, chutneys and soy sauce. Policies need to be in place to decrease the amount of salt/sodium added to processed foods and increasing the availability of healthier food options.

At least 150 minutes of moderate exercise per week is recommended. Promoting healthy behaviours will reduce mortality not only due to hypertension-related cardiovascular diseases but also due to other diseases such as diabetes, cancer and chronic respiratory diseases.

Educating and motivating people of all ages and in all walks of life to prevent hypertension through healthy behavior must become a national health priority. But controlling hypertension needs efforts by other sectors too.

Do our cities provide safe, clean and accessible open spaces for citizens to engage in physical activities? Do we have policies in place to protect people from high salt and saturated fats in processed foods? Are fresh fruits and
vegetables affordable for the common man? All these issues have a direct impact on prevention and control of hypertension and other diseases. Education, labour, food, nutrition, transport, communications, urban development, sports and youth affairs sectors need to come together to help people make healthy lifestyle choices.

Countries need to institute programs in schools and workplaces that enable and encourage people to choose healthy eating and physical fitness. Policies need to be in place to decrease the amount of salt/sodium added to processed foods and increasing the availability of healthier food options.

It is also important to educate the population about regular checkups of blood pressure levels to diagnosis hypertension early. It is possible to diagnose and treat hypertension at primary health care centers using simple equipment and standard treatment guidelines. These services must be made affordable and accessible. In addition to improved access to treatment, counseling should be offered to promote adherence to prescribed medicines.

At the historic meeting of the United Nations General Assembly in September 2011, countries made commitments to take concerted and comprehensive actions for prevention and control of noncommunicable diseases such as heart disease, cancer, respiratory diseases and diabetes. These commitments must now be translated into concrete actions through adoption of effective public policies. Resources need to be dedicated to promote healthy lifestyles, empower communities and strengthen primary health systems to thwart the growing burden of these diseases.

WHO continues to work with countries to take tangible and sustained actions to combat hypertension through a comprehensive multispectral approach. Preventing and controlling hypertension will reduce disease, disability and death by protecting people from the risk of heart disease, stroke and related noncommunicable diseases.

Dr Samlee Plianbangchang
Regional Director
Watch your plate and your weight

Blood pressure – take control
Healthier hawker programme – a lever for salt reduction in Singapore

Ms Sia Yumin Sharon, Senior Executive, Centre of Excellence (Nutrition), Health Promotion Board, Singapore

Singapore is a nation that loves salty food, with 8 in 10 Singapore residents exceeding the limit of 5 grams of salt per day. Each person in Singapore consumes, on average, 8.3 g of salt daily. These are findings of the Salt Intake Study, by the Singapore Health Promotion Board (HBP), conducted as part of the 2010 National Nutrition Survey. The majority (60%) of salt in the local diet comes from table salt and sauces. Of this, almost two-thirds were from food consumed outside of the home.

This is a concern because Singaporeans are eating out more often. In 2010, 6 in 10 Singaporeans reported that they usually eat lunch and/or dinner outside the home, compared with only 4 in 10 in 2004. The venue of choice for many Singaporeans is the hawker centre. Originally set up as street vendors without any licenses or regulation, hawkers were, in the 1950s and 60s, moved into centralised open-air structures to allow greater control over hygiene practices. The average hawker centre offers a wide variety of dishes, from the well-known Hainanese chicken rice and Indian thosai masala to Malay ethnic dishes such as mee rebus, at affordable prices. For example, a meal at a hawker centre costs about US$ 2.50 compared with US$ 5.00 or more in restaurants or cafes selling similar cuisines. However, most dishes sold at hawker centres are high in sodium and saturated fat, and healthier options such as brown rice or whole-grain noodle dishes are often hard to find.
To support healthier eating amongst Singaporeans, the HPB Centre of Excellence (Nutrition) launched the revamped Healthier Hawker Programme in April 2011. This programme focuses on both demand for and supply of healthier ingredients, and uses a public–private partnership model. Supply of healthier ingredients is increased by encouraging local food manufacturers to develop healthier ingredients that are aligned with public health needs, for example, cooking oil with 25% reduced saturated fat, whole-grain noodles and vermicelli, salt with 25% less sodium (replaced with potassium) and reformulated sauces, pastes and seasonings that contain less salt, but with similar properties as the original ingredient. Demand for these products is generated by encouraging hawkers to use these reformulated products, but without significantly modifying their recipes so that the taste of popular local street food is preserved.

Hawkers who take up the use of healthier ingredients can promote their healthier dishes through use of calorie postings and healthier choice symbol markings of healthier dishes on their menu boards and allow consumers to make informed choices. Hawkers are also given decals that highlight the type of healthier ingredient used.

A challenge faced was keeping the cost of the healthier ingredients competitive. In Singapore, healthier ingredients sold are usually more expensive primarily because suppliers are unable to achieve economies of scale. To assist with cost management, HPB facilitated a one-stop marketplace for purchase and distribution of the various types of healthier ingredients. Several ingredient suppliers have banded together and, with support from a SPRING Singapore productivity grant that promotes logistics consolidation among local small-medium enterprises, have worked out a new shared service model. Instead of multiple trips and numerous
drop points, goods are collected from different suppliers at a single location and bundled together before distribution to each hawker centre, as illustrated below:

This has resulted in some cost savings and improved efficiency so that the bottom line of the hawker trade is not being compromised. At the same time, healthier ingredient suppliers are able to expand their market by reaching out to more hawker centres in Singapore. To date, seven hawker centres have come on board the programme, with an average of 60% participation rate from the hawkers. Ingredient suppliers have also reported a 30% increase in demand for healthier ingredients since the launch of the programme. HPB targets to roll out the programme to all hawker centres in Singapore by 2015.
Be smart. Don’t start.

One person dies every six seconds from tobacco

2.5 million people die from alcohol each year

Tobacco and excessive alcohol increase your risk of high blood pressure and heart diseases.

Blood pressure – take control
High blood pressure – did you know?

What is high blood pressure or hypertension?

- Blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries) as it circulates through the body.

- Normally blood pressure rises and falls several times during the day in response to body functions. High blood pressure or hypertension, is a condition in which the blood vessels have persistently raised pressure.

- Blood pressure is written as two numbers (measured in millimetres of mercury – mmHg, e.g. 120/80 mmHg). The first (systolic) number represents the pressure in the blood vessels when the heart beats. The second (diastolic) number represents the pressure in the blood vessels when the heart rests between beats.

- Normal levels of both systolic and diastolic blood pressure are particularly important for efficient functioning of vital organs, such as the heart, brain and kidneys, and for overall health and well-being.

- Hypertension is defined as a systolic blood pressure equal to or above 140 mmHg and/or diastolic blood pressure equal to or above 90 mmHg.

What are the risk factors for high blood pressure?

- Behaviour and lifestyle-related factors can put people at a higher risk for developing high blood pressure. This includes eating too much salt (sodium), being overweight and not getting enough exercise, as well as drinking too much alcohol and using tobacco.

- Blood pressure increases with age due to stiffening of blood vessels. Ageing of blood vessels can be slowed down by promoting healthy living including healthy eating and by reducing salt intake in the diet.

- In some cases, there is no known specific cause for high blood pressure. Genetic factors may play a role and a close relative may have a history of high blood pressure. The risk for high blood pressure can increase even more when heredity is combined with unhealthy lifestyle choices.

What are the symptoms of high blood pressure?

- Sometimes high blood pressure can cause symptoms such as headache, shortness of breath, dizziness, chest pain, palpitations of the heart and nose bleeds.

- But most people with high blood pressure usually have NO warning signs or symptoms. Thus many with high blood
Early detection and management of high blood pressure can help in reducing the risk of heart attack, heart failure, stroke, and kidney failure. All adults should check their blood pressure and know their blood pressure levels.

How is high blood pressure diagnosed?
- The only way to detect high blood pressure is to have your blood pressure checked by a doctor or a health professional. Measuring blood pressure is quick and painless. Blood pressure measurements need to be recorded for several days before a diagnosis of hypertension is made.

What are the adverse health effects of high blood pressure?
- It is dangerous to ignore high blood pressure, because it increases the risk of life-threatening complications. The higher the blood pressure stays above normal, the higher is the potential for harmful consequences to the heart and blood vessels in major organs such as the brain and kidneys. If left undiagnosed and uncontrolled, high blood pressure can lead to heart attack, an enlargement of the heart, and eventually heart failure. Blood vessels may develop bulges (aneurysm) and weak spots, making them more likely to burst and clog. The pressure in the blood vessels can also cause blood to leak out into the brain. This can cause a stroke. High blood pressure can also lead to kidney failure, blindness, rupture of blood vessels and cognitive impairment.

How can YOU prevent and control high blood pressure?
High blood pressure is largely preventable by adopting lifestyle modifications. Below is a list of actions you can take to prevent high blood pressure.
Eat a healthy diet consisting of fresh fruits and vegetables, whole grains, lean proteins, high fibre and low fat.

Limit intake of sodium by reducing the amount of salt added to food. The total daily intake of salt (sodium chloride) from all sources should be no more than 5 grams per day (1 teaspoon). Many processed foods are high in salt. Avoid processed food and reduce consumption of pickles, papads, chutneys and soy sauces, which are high in salt.

Maintain a healthy weight. Being overweight can raise blood pressure. Losing weight can help lower blood pressure.

Be physically active. Physical activity can help lower blood pressure. Adults should engage in moderate physical activity for at least 30 minutes on most days of the week.

Do not use tobacco. Smoking injures blood vessels and speeds up the hardening of arteries. Smoking is a major risk factor for heart disease and stroke. If you are not using tobacco, do not start. If you are already using tobacco, quitting will lower the risk for heart disease and stroke.

Limit alcohol use. Drinking too much alcohol is associated with high blood pressure.

Check your blood pressure regularly. Regular blood pressure checks help ensure that high blood pressure is diagnosed and controlled before it leads to serious health problems.

Treat high blood pressure. For some people, lifestyle changes are not enough and prescription medication is needed to control blood pressure. In most cases, control of blood pressure means a systolic blood pressure less than 140 mmHg and a diastolic blood pressure under 90 mmHg.

Prevent and manage other medical conditions such as diabetes. About 60% of people who have diabetes also have high blood pressure. Having both hypertension and diabetes doubles the risk of cardiovascular disease and the risk of dying.

Reduce and manage mental stress through yoga, meditation and other relaxing techniques.

When medicines are prescribed to control blood pressure in addition to lifestyle changes, it is imperative that you take your medicines regularly.
Stay physically active at every age

5–17 years
At least 60 minutes of moderate-to-intensive physical activity daily

18–64 years
At least 150 minutes of moderate-intensity aerobic physical activity throughout the week

65 years and above
At least 150 minutes of moderate-intensity aerobic physical activity throughout the week

Blood pressure – take control
Blood pressure – take control
Preventing hypertension in an increasingly urbanized, globalized world

Aishath Abdul Gafoor gets up every morning and exercises before she starts her hectic day in the city of Malé, Maldives. She is 61 years old.

“I have been exercising every day since I was 30 years old. Back then I had to manage four small kids and a job. But I always took the time to go for a walk around Male” Says Aishath. A family history of diseases such as hypertension and diabetes inspired her to exercise regularly for the last three decades.

One in three adults in WHO’s South-East Asia Region has hypertension and Maldives show similar trends. As the population of South-East Asia ages, more and more people are likely to develop hypertension.

The island nation of Maldives has a population of 300 000 people living in 196 of its 1300 islands. Economic progress over the past decades has brought a drastic change in lifestyles. Unhealthy lifestyles such as increased consumption of processed foods containing excessive salt, low levels of physical activity, and use of tobacco have increased. Increasing levels of mental stress have also resulted in the adoption of unhealthy behaviours putting people at a higher risk of hypertension.

It has not been easy for Aishath to accommodate an active physical routine into her busy urban lifestyle. Malé, a small island with 110 000 inhabitants is densely populated with shrinking open spaces. One of the most popular community outdoor spaces is the artificial beach in Malé where young men can be seen playing volleyball, football and on the trampoline.

“Women often tell us they find it inconvenient to go for a swim or walk in Malé. They do not feel safe” says Dr Ali Abdul Latheef, physician at
High blood pressure increases the risk of heart attacks, strokes, loss of vision and kidney disease. Each year, hypertension kills nearly 1.5 million people in the Region.

Traditional diets have also changed in the Maldives. With economic prosperity, more processed food is available in the markets and is making its way into children’s diets.

Over the past 14 years Dr Latif has noticed an increasing trend of hypertension at the IGMH: “what is alarming is that we now see a lot of young hypertensive patients. Many patients are in their early thirties and sometimes as young as early twenties.” he says.

Hypertension is a “silent killer” with no signs or symptoms. Many people do not realize that they have hypertension. This is why regular blood pressure (BP) checkups are recommended.

Hypertension is the single most important risk factor for death, accounting for 1 in every 10 deaths in WHO’s South-East Asia Region. High blood pressure increases the risk of heart attacks, strokes, loss of vision and kidney disease. Each year, hypertension kills nearly 1.5 million people in the Region.

But Aishath did not let this come in the way of her regular exercise routine. She now goes to the local gym to exercise. Moderate physical exercise of at least 150 minutes every week is recommended to prevent diseases like hypertension.

Once hypertension is detected, it is important to take medicines as prescribed to prevent complications such as stroke, heart attacks, kidney and eye damage.
Cut down on salt

- sauces and ketchup
- pickles and chutneys

1 level teaspoon = 5 grams

WHO recommends reducing salt intake to less than 5 grams per day per person

Blood pressure – take control
WHO guidance on dietary salt and potassium

Adults should consume less than 2000 mg (2 g) of sodium, or 5 grams of salt, and at least 3510 mg of potassium per day, according to new guidelines issued by the WHO. A person with either elevated sodium levels or low potassium levels could be at risk of raised blood pressure which increases the risk of heart disease and stroke.

These guidelines also make recommendations for children over the age of 2. This is critical because children with elevated blood pressure often become adults with elevated blood pressure.

Sodium content in common food items:
- milk and cream – approximately 50 mg of sodium per 100 g;
- eggs – approximately 80 mg per 100 g;
- bread – approximately 250 mg per 100 g;
- popcorn – approximately 1500 mg (or 1.5 g) per 100 g;
- soy sauce – approximately 7000 mg (or 7 g) per 100 g;
- bouillon or stock cubes: approximately 20 000 mg (or 20 g) per 100 g.

Potassium-rich foods
Processing reduces the amount of potassium in many food products. Currently, most people consume too much sodium and not enough potassium.
- Beans and peas – approximately 1300 mg (1.3 g) of potassium per 100 g;
- Nuts – approximately 600 mg per 100 g;
- Vegetables such as spinach, cabbage and parsley – approximately 550 mg per 100 g;
- Bananas, papayas, and dates – approximately 300 mg per 100 g.
The guidelines are an important tool for public health experts and policy-makers as they work in their specific country situations to address noncommunicable diseases such as heart disease, stroke, diabetes, cancer and chronic respiratory diseases. Public health measures to reduce sodium and increase potassium consumption and thereby decrease the population’s risk of high blood pressure and heart disease can include food and product labelling, consumer education, updating national dietary guidelines, and negotiating with food manufacturers to reduce the amount of salt in processed foods.

WHO is also updating guidelines on the intake of fats and sugars associated to reduced risk of obesity and noncommunicable diseases.

Detailed WHO guidelines are available at:

High blood pressure or hypertension is a 'silent killer' — it often has no warning signs or symptoms.

High blood pressure increases the risk of heart attacks, strokes and kidney failure.

Uncontrolled high blood pressure can cause blindness, irregularities of the heartbeat and heart failure.

Know your numbers — check your blood pressure regularly.

Take medicines as prescribed to prevent complications of high blood pressure.

**Blood pressure – take control**