Death by Sugar: Can Southeast Asia Win the War on Diabetes?

- Southeast Asians now make up 20 per cent of the 450 million diabetes sufferers globally; many live in Indonesia, Malaysia, Singapore and Thailand
- Experts say a sugar tax won't solve the problem there needs to be a coordinated approach of early detection and promoting a healthy diet and exercise

Mayang Gagat Kamayang is 23 and lives in Sukabumi, West Java, where she runs a home business making and selling Indonesian kue (sweet snacks). Six years ago at the age of 17, she was diagnosed with diabetes. Her father and grandfather both died from complications relating to the disease.

"Once I realised I had inherited diabetes, I immediately started eating less carbs and walking more," she said.

She surmised it was getting more common for young Indonesians to develop the disease, due to a combination of genetic predisposition, diet and lifestyle.

Mayang's story barely scratches the surface of the public health crisis Southeast Asia is grappling with – how to prevent and treat diabetes, which can lead to complications such as heart disease, stroke, and kidney and nerve damage.

About 96 million of its more than 670 million population – or every one in 14 people – have diabetes, and almost all of them have type 2 diabetes, which is in many cases preventable.

Worrying ignorance of diabetes symptoms, in Asia and elsewhere, revealed

This means Southeast Asians now make up about 20 per cent of the 450 million people living with diabetes globally, with many of them living in Indonesia, Malaysia, Singapore and Thailand. Experts have blamed this on a prevalence of processed and unhealthy food, a lack of early intervention for patients and misinformation — diabetes was for a long time thought to be a disease that afflicted people in wealthier countries.

While doctors and scientists now know more about the disease than ever, their expertise has not yet translated into effective, coherent policy across the board. As a result, millions remain at risk.

"This challenge reflects what society values," said Lim Chee Han, senior analyst at Malaysian think tank Penang Institute. "If values don't change, how can public health change?"

Country	Population with diabetes	Annual spending on diabetes treatment (US\$ billion)	Deaths from non-communicable diseases (including diabetes)	Sugary beverage tax
Singapore	450,000	1	21,000	None
Malaysia ·	3,600,000	1	113,000	Over 5 g per 100ml
Thailand	2,400,000	1.6	400,000	Over 6 g per 100ml
Indonesia	17,000,000	1.6	1,400,000	None
Source: World I	Health Organisation			SCMP

Southeast Asia is confronting its rising diabetes issues Share:

Singapore Leading the Way

Most days of the week, non-profit group Diabetes Singapore parks a bus outside a medical clinic. The bus houses equipment for diabetes screenings to be conducted at clinics across the city state, where nearly one in every 10 people has diabetes.

Patients can pre-book appointments with their general physicians and then walk directly from the clinic into the bus to be screened. Diabetes Singapore has partnerships with more than 200 clinics. Each bus screens as many as 15 patients a day.

Venkatesh Narasiah is the director of Diabetes Singapore, which also operates support groups critical for managing the disease.

After patients get diagnosed with diabetes, they can become depressed, and bringing them into a support group can be the best way to bring them out of

it, ?? Narasiah said.

'They realise this is not an end-of-life situation. ??

Singapore is leading the fight against diabetes in Southeast Asia, taking a proactive approach to prevention and early treatment. In his 2017 National Day address, Singapore's Prime Minister Lee Hsien Loong identified diabetes as one of the most pressing issues facing the nation, urging an "all out" fight against the disease.

"Each one of us must take responsibility for our own health. And this must start from [when we are] young," Lee said. "That is the way to reduce the risk of diabetes, stay healthy and live well."

Food packaging decoded: how to unpack that mind-boggling list of ingredients

There are more than 450,000 Singaporeans with diabetes and the Ministry of Health projects this number will rise to I million in the next 30 years without intervention. The disease already costs the government more than US\$1 billion annually.

The government's "War on Diabetes" involves expanding the ability of clinics to conduct screenings, promoting knowledge-sharing between health care providers across specialities, public information campaigns and updating physical activity curriculum in primary schools. The government is also considering a "traffic light system" on food packaging that would rate the contents' nutritional value.

"There aren't many countries doing a good job, but Singapore is doing a good job," said Paul Zimmet, a diabetes expert from Monash University in Melbourne, Australia.

Zimmet's research indicates maternal health can impact diabetes risk for future generations, meaning today's diabetics could have been predisposed due to their mother's or grandmother's exposure to certain risk factors. Those relatives may have lived through times of scarcity such as famine and natural disaster – this predisposition can increase risk of dietrelated disease for generations after.

HEARTWARE

"The story of healthy pregnancy is essential," Zimmet said. "It's not a simple thing about lifestyle.

"If you're looking at the long-term, to reduce the epidemic, you must look at the question of maternal and child health. It keeps this going, and the generational effect continues."

An Ongoing Struggle

In Malaysia, where most citizens rely on public health care, the cost of diabetes is mounting. More than 3 million Malaysians have diabetes, and Lim reports Malaysia spends 16 per cent of its health care budget on treating the disease. Lim's research identified Malaysia as the most sedentary nation in Southeast Asia

"Malaysians really love their cars and would prefer to be in a traffic jam instead of walking," he said.

When presenting his 2019 budget last month, Malaysian Health Minister Lim Guan Eng announced the government would tax high-sugar beverages. Similarly, Thailand, one of the world's leading producers of sugar implemented a tiered sugar tax in 2017. However, this may not adequately address such a complex and expensive problem.

Six global food and wellness trends for 2019 – from marijuana edibles to fish-free tuna

"These taxes may be a good idea," Zimmet said. "But they need to be part of a strategic, integrated approach."

The Malaysian government under Mahathir Mohamad is considering requiring all eateries to close by midnight and banning advertisements for high-fat and high-sugar foods. According to Lim, these measures were under consideration by former prime minister Najib Razak's administration and remain on the table.

In Indonesia, about 7 per cent of the population – more than 17 million people – have diabetes, according to the World Health Organisation. That number is expected to grow and there is no major national diabetes prevention strategy.

The International Diabetes Federation reports that just 47 per cent of diabetes patients in Indonesia are diagnosed, compared to 72 per cent in Mexico, and a 2014 study at Indonesia's National Institute of Health Research and Development found undiagnosed diabetes was nearly twice as prevalent as diagnosed in the working age population. This means millions of young Indonesians are living with diabetes, many of them untreated.

Juliana Chan, director of the Hong Kong Institute of Diabetes and Obesity at Chinese University, said: "One of the challenges in managing young onset diabetes is the low level of awareness and low motivation to change.

"Young people cannot see the value of changing now for premature ageing or complications which many cannot visualise."

Are you at risk of diabetes? Chinese AI system could predict disease 15 years in advance

The World Economic Forum estimates non-communicable diseases such as diabetes and heart disease will cost Indonesia US\$2.8 trillion from 2012-30, more than 100 times the nation's total health spending in 2014.

Lack of public awareness is one of the major obstacles to diagnosis and treatment. Many clinics lack sufficient equipment to monitor blood glucose, let alone support the type of early-state detection that could prevent patients developing life-altering complications like loss of limbs.

Patients who are eventually diagnosed are more likely to have later-stage diabetes and suffer related complications. In Indonesia, only half the government-owned primary care facilities can perform blood glucose tests.

For many Indonesians, Facebook and other forms of social media have become primary sources of information about managing and preventing the disease.

"It's also about genetics, education, access to outside space, maternal and child health." Paul Zimmet

Recent university graduate Cahya Ahya is among them. She was diagnosed with diabetes 11 years ago and now posts actively on a Facebook forum for diabetes patients from her home in Central Java. On the group, users regularly post photos of their blood glucose readings and share cooking tips.

"It's hard to eat sweets, so I avoid them," said Cahya.

"I learned walking is important, and I make sure to walk every day."

Mayang, who runs the kue business, says the nearest medical clinic is far from her home and so the online community has been a constant source of support.

"It has helped me make lifestyle changes and given me information on how to limit stress," she said.

But asked if she had reduced her use of sugar in her recipes, she said: "Not yet."

Paths for Prevention

Type 2 diabetes can be prevented or delayed through early detection, healthy diet and exercise. But experts note the diet and exercise decisions people make are often constrained by their environment – proximity to parks, pricing of healthy food versus unhealthy food, and time off from work to cook and work out.

"Behaviour change will not just result from taxes," Lim said. "It will also result from urban planning, advertising and government interventions in limiting the market for unhealthy food."

For example, local officials should work together with the Ministry of Housing to build more bicycle lanes and parks.

How good for your health is cutting salt from your diet? Chinese scientists try to find the answer

"Comparing Malaysia with Singapore, there's a major difference because of urban planning," he said, noting Singapore prioritised walkability in its urban development, with better connected public transport options.

Other experts say government agencies must direct resources appropriately towards raising awareness of the dangers of diabetes, equipping local clinics for early detection and promoting healthier eating and exercise.

Zimmet, who is also honorary president of the International Diabetes Federation, agreed taxes alone were not sufficient. "It's not simply about lifestyle," Zimmet said. "If you're looking at reducing the epidemic longer term, it's also about genetics, education, access to outside space, maternal and child health."

Aspects of modern life, such as sleeping patterns, can also play a role

in determining health outcomes, he said.

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How this glucose monitor helps diabetics live longer lives and manage their condition properly, without the need to draw blood

Teo Yik Ying, dean of the Saw Swee Hock School of Public Health at the National University of Singapore, said a higher incidence of chronic illnesses like diabetes among young people meant they would incur more medical costs over their lifetimes and probably not be able to work to their full potential.

And Chan warned: "If public health measures and health care system changes are not implemented fast enough, not only will our health care systems collapse, we will also lose our workforce due to premature disabilities and death with reduced societal productivity."

Narasiah of Diabetes Singapore said consumer information is essential in combating diabetes.

"At least 25 per cent of the population is at risk for diabetes," he said. "Of those potential cases, how many are well managed? Maybe only 5 per cent. So there's 20 per cent of the population that really could benefit from more knowledge."

Lim said that in Malaysia, people of all incomes are buying sugary food. His research indicated age, rather than income, determined levels of sugar consumption. Lim said the government should intervene in the market to make healthier options, such as brown rice, more affordable for consumers.

"The government needs to take concrete steps to intervene and not simply let the free market dictate food consumption," Lim said. "Like cigarette smoking – why not do the same with junk food?"

