Nudges have been shown to help Singaporeans form healthier habits and make more informed lifestyle choices.

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Health in Singapore has improved substantially over the past five decades. Medical advances and a high standard of public health have raised life expectancy from 67 years in 1967 to 82 years today — one of the highest in the world.\(^1\) Singapore ranks second in the Sustainable Development Index, a testament of advances made in providing sustainable environment for its people.\(^2\)

However, challenges lie ahead. By 2030, one in ten Singapore residents will be aged 65 and above. A busy and affluent lifestyle has given rise to issues such as over-eating, sedentary lifestyles and tobacco use. These unhealthy habits increase the likelihood of non-communicable diseases (NCDs) such as cancers and cardiovascular diseases, which lead to a poorer quality of life and add to the burden of the healthcare system, and social support structures. These NCDs can be prevented if individuals maintain healthy lifestyles.

Getting people to live healthily is not a simple task. Government incentives and nation-wide educational campaigns have met with limited success. The challenge is complex, and policymakers need a deeper understanding of why and how people behave as they do. Tasked with keeping the nation healthy, the Singapore Health Promotion Board (HPB), a statutory board formed under the Ministry of Health, actively applies behavioural insights (BI) to help individuals shift their behaviours and take greater ownership of their own health.

**From Informing to Influencing: Making a difference to health outcomes**

Since the early years of independence, health promotion — largely in the form of health education and mass public campaigns — has played a significant role in raising health awareness and literacy in Singapore. However, trends have shown that knowledge does not necessarily lead to practice.\(^3\)

A growing body of research indicates the strong influence of physical and social surroundings on individuals’ actions. For example, simply asking people to go for regular health check-ups (even at low or no cost) may not be adequate. But making cancer screenings readily available in the polyclinics and in the community may boost participation.

As part of a new initiative to increase screening for colorectal cancer, HPB has worked with partners such as the Singapore Cancer Society to make FIT kits (which picks up suspicious blood traces in stools) available in the community — such as through major pharmacies, polyclinics or at community events — at no cost to eligible clients.

Similarly, asking children to eat more healthily will probably meet with limited success, but making healthier food choices available and more attractive...
in school canteens might work better. This approach was adopted in the Healthy Meals in Schools Programme (HMSP) in Singapore, which helps children and youths to eat more healthily. A survey done among students from 33 primary schools and 19 secondary schools in 2015 showed that 24% more students consumed at least two servings of fruits and vegetables every day, six months after the Healthy Meals in Schools Programme was introduced. The early success of this programme has seen the Healthy Meals in Schools Programme being introduced to all mainstream schools.

What these examples tell us is that behavioural theories can point the policy community to better interventions. However, finding out what works is often highly contextual and requires continuous experimentation and adapting. In our shift from “informing” to “influencing”, many of our efforts have taken into account behavioural traits such as how Singaporeans think, decide and form new habits. This demonstrates how BI can complement existing evidence-based approaches to create solutions that work.

Other examples from HPB’s experience illustrate the importance of designing and testing interventions that are Easy, Attractive, Social and Timely,\(^4\) in order to make a greater impact on health outcomes in Singapore.

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**CASE STUDY #1:**
Creating and sustaining a healthier dining ecosystem

To create systemic nudges, stakeholder engagement is key. Map out a customer journey to identify gaps and opportunities. Make it easy and attractive for industry partners to come on board, and for customers to buy in repeatedly.

Excess calorie intake is a key cause of obesity in Singapore. If the trend continues unchecked, by 2050, one in two Singaporeans will be overweight, obese, or suffer from diabetes in their lifetime.

HPB found that six in ten Singapore residents usually eat out for lunch or

*Make it easy and attractive for industry partners to come on board, and for customers to buy in repeatedly.*
dinner, compared to 1 in 2 in 2004. Singaporeans who eat out tend to consume more and have unhealthier diets.⁵ To slow the rise of obesity among Singaporeans, HPB introduced the Healthier Dining Programme to weave healthier choices into the dining-out menu. When the average Singaporean eats out, a typical meal portion consumed is about 700 calories. HPB partnered with food and beverage (F&B) operators to offer lower-calorie options (500 calories or less) that were still tasty and satisfying. In addition, healthier ingredients such as wholegrain, fruits and vegetables were included in their core menu offerings.

HPB first mapped the local food and beverage landscape, identifying food court chains, coffee shops and restaurant chains where a significant number of Singaporeans dine out. HPB then engaged identified F&B partners to understand the impact on costs and operational challenges in providing healthier food options. By highlighting healthy menu options as an emerging area of business growth, HPB motivated F&B owners to come on board. In return, HPB supported their efforts to introduce new menu offerings by marketing the availability of healthier choices over an extended period.

To drive consumer demand for healthier options, HPB leveraged insights from design thinking to create attractive on-ground promotions including point-of-sales prompts, nudging consumers to choose healthier options at F&B outlets.

As of December 2016, 62 F&B partners (with over 1,600 touch points) have come on board the Healthier Dining Programme. Participating F&B operators range from food courts such as Kopitiam and Foodfare, to

![Figure 1. Displaying the Healthier Choice Symbol beside healthier options eases decision-making. Images courtesy of the Health Promotion Board, Singapore](image)
restaurant chains such as Paradise Group, Pu Tien and Swensen’s. Since June 2014, more than 5,000 F&B partner outlets island-wide have served healthier meals to Singaporeans: one in ten meals eaten out has been healthier. Efforts are also underway to extend the programme to hawker centres, through a partnership with the National Environment Agency.

CASE STUDY #2: Getting people to walk more

To influence longer-term behaviour change, a combination of nudges is required — first, to initiate the new behaviour, and then to encourage repeated behaviour. These nudges must be attractive enough to keep users engaged at each stage.

The 2010 National Health Survey showed that two in five adult Singaporeans between 18 to 69 years old do not engage in at least 150 minutes of physical activity per week. A further quarter of these inactive adults engage in less than 30 minutes of physical activity a week. The concern here is their increased risk of cardiovascular disease, cancer and obesity, due to the lack of physical activity.

To address this, the National Steps Challenge was launched in 2015. It has since enjoyed both nationwide reach and impact, becoming one of HPB’s most successful initiatives. Besides attracting over 100,000 adults and students in its first season, it enjoys high participation levels and has influenced the majority of sedentary participants to become active during the period of the challenge, i.e. achieving at least 150 minutes of physical activity per week. How did this happen?

At the onset, the Challenge sought to be attractive to participants: they each received a wearable steps tracker and a ‘sure-win’ chance to earn small cash incentives by clocking 5,000 to 10,000 steps a day (4km to 8km). The rewards programme was gamified to keep participants engaged.

By design, it was relatively easy to reach the first rewards tier: those who clocked 10,000 steps daily would earn the first incentive within two weeks.
Subsequent tiers were made slightly more challenging. By the time all three tiers were reached, the average participant would have taken 12 weeks or more to complete them, which based on past experience with similar programmes, is a sufficient timeframe in which to form new habits. In fact, 36% of those who had reached the third tier continued clocking their steps, despite having won all ‘sure-win’ prizes.

Participant behaviour was sustained throughout the Challenge. When Season One concluded in May 2016, more than 50% of the current participants had achieved 7,500 steps or more a day, and over 75% had used the step tracker five days or more in a week. Most encouraging of all, 78% of participants who were previously inactive reported themselves to be sufficiently active, with 150 minutes of activity per week since joining the Challenge.

In addition, based on a population survey conducted by HPB, the proportion of Singapore residents aged 18 to 74 years of age who had at least 150 minutes of physical activity (exercise/walking) a week increased from 50.7% to 57.4% between 2013 and 2016.

The Challenge continues to be popular. As of March 2017, nearly 400,000 Singaporeans of all ages have participated in Season Two. With a more extensive gamified rewards programme, more participants have hit key milestones faster than in Season One — 16% of Season Two participants achieved all six tiers of rewards and would have walked a total of about 1,200,000 steps, about 960km, the distance from Singapore to Hat Yai, Thailand.

Smoking is a highly addictive behaviour, and those trying to quit may find themselves relapsing several times before they succeed. While rolling out population-based programmes to all Singaporeans, HPB has, over the years, tailored culture-specific programmes. To better reach
out to Malay-Muslim smokers, HPB introduced the Ramadan I Quit 28-Day Countdown programme in 2013. During Ramadan, Muslims fast from first light of dawn to sunset and smoking is an activity that is strongly discouraged. In fact, based on focus group discussions that were conducted with the Malay-Muslim community, 48% of smokers indicated that they had previously tried to quit smoking during Ramadan.

There was evidence that smokers who managed to stay smoke-free for 28 days were five times more likely to quit smoking for good. Hence, Malay-Muslim smokers were recruited in the month of Ramadan and challenged to remain smoke-free for 28 days. In short, this was the most timely period to nudge Malay-Muslim smokers to start kicking their habit.

In 2015 and 2016, HPB attracted an average of 1,700 participants during each month of Ramadan, a ten-fold increase compared to an average of 170 participants in non-Ramadan months. This demonstrates how a targeted and timely approach can yield significantly greater reach and impact.

**Conclusion**

Singapore’s growing affluence, with its associated lifestyles, present more complex challenges for health. Many health problems can be addressed significantly by getting more people to adopt healthier ways of life. The longer-term challenge is to help people form and sustain healthier habits, and even influence others to follow their example. This is important as we seek to move from ‘inform’ to ‘influence’ in our public health strategies, and have citizens help themselves and others to achieve healthier outcomes.

We should continue our stakeholder engagement efforts, to nurture an ecosystem where innovative ideas and nudges can be applied effectively. By making a strong business case for healthy living, we can grow our network of public, private and people partnerships. As demonstrated in the Healthier Dining Programme’s growing market share, this approach can tilt the market to provide healthier options and make it easier for citizens to take up and sustain healthier behaviours. Bringing

**People should be able to exercise informed choice over what health decisions to make.**

To increase the accessibility of the I Quit programme to the Malay community during Ramadan, road-shows were held in festive bazaars. HPB also worked closely with mosques and MUIS (also known as the Islamic Religious Council of Singapore) to share the importance of quitting smoking, particularly given the broader support for doing so during Ramadan.
a variety of exercise programmes to the doorsteps of Singaporeans’ homes and workplaces has also elicited a positive response.

People should be able to exercise informed choice over what health decisions to make. HPB’s mission is to empower individuals to take ownership of their health. This will only be possible when an increasingly educated populace realises the importance of health, and takes concrete steps to improve it.

NOTES


5. Those who eat out six or more times a week typically consume 12% more calories, 15% more saturated fat and 34% less whole-grains than those who eat out less often.


7. Sundays at the Parks, which was launched in 2013, has grown from 2 parks to 89 to date, in partnership with Sport Singapore: https://www.healthhub.sg/programmes/33/sundays-at-the-park.