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Why a health policy banning e-cigarettes is an act of prudence

On June 9, two academics argued in these pages that a ban on e-cigarettes is not good policy. Here, another health expert offers a different view.

Teo Yik Ying

For The Straits Times

Fierce ongoing debate between sceptics and enthusiasts on the benefits and ills of e-cigarettes demonstrates how contentious the topic of e-cigarettes can be.

Professor Tikki Pang and Ms Gayle Amul recently weighed in on the range of policy responses to e-cigarettes globally, and concluded that Singapore ought to keep an open mind on e-cigarettes and shape policies only on the back of evidence and evaluations about costs and benefits ("Why a ban on e-cigarettes may not be the best policy"; June 9).

The authors have raised several excellent points. To summarise their observations and other existing public health evidence, we do currently know the following about e-cigarettes:

- Short-term data shows that e-cigarettes are less harmful than regular cigarettes to current smokers – that is, if these smokers switch partially or completely to e-cigarettes. I emphasise "short term" because the available evidence is less than 15 years old, as the commercial sale of e-cigarettes started only in 2004, and the majority of formal human studies on the health effects are less than seven years old.
- Although a harm-reduction innovation, an e-cigarette fundamentally is still a nicotine delivery system that leads to addiction.
- Along with delivering nicotine, e-cigarettes also expose the user to a range of chemicals whose long-term health effects are currently little understood. They include highly toxic carcinogens like formaldehyde.
- E-cigarettes can create a "gateway effect" – young people whose nicotine addiction is triggered by e-cigarette use invariably move on to smoking regular cigarettes.

The gateway effect has been increasingly and robustly confirmed by well-designed studies in Canada, Britain and the United States.

For example, the Compass study in Canada, which looked at more than 40,000 students from at least 86 secondary schools, showed that e-cigarette use increases the risk to initiating daily smoking.

There remain many questions with no definitive answers that can help determine the most appropriate public health policy response to e-cigarettes in Singapore. What is the long-term health impact to one who uses e-cigarettes? What is the size and impact of the gateway effect of e-cigarettes in Singapore? What is the trade-off between the reduction of harm to current smokers and the risk of starting smoking among non-smokers experimenting with e-cigarettes? How truly effective are e-cigarettes as a smoking-cessation aid?

Prof Pang and Ms Amul, too, asked the first three questions in their article, and subsequently concluded that in the light of these unknowns, the "right policy response is surely not an outright ban".

I disagree.

The formulation of public health policies is never straightforward: There are considerations about best practices and cost, about scientific evidence of effectiveness and social desirability, and more importantly, about sustainability and overall impact on improving population health.

However, evidence can help guide the arduous policymaking process by reducing the amount of guesswork and speculation, and also help policymakers honestly assess whether there is enough data to adopt a different policy response.

Concurrently, public policies should never be cast in stone. Policymakers should be open-minded and sufficiently nimble to modify current policies when new data emerges. This is especially critical in formulating sound policies that can best direct public health goals.

Let us now apply this framework on public policy formulation and evaluation to e-cigarettes.

The e-cigarette is not a zero-harm product to its user. In other words, e-cigarettes still present harm to the user, and also increases the probability of a young user moving on to smoking regular cigarettes. Thus, e-cigarettes serve no function in any country that intends to reduce its smoking prevalence or ultimately become tobacco-free.

What about the narrative around allowing current smokers access to e-cigarettes, with current evidence suggesting that they are less harmful than conventional cigarettes?

Actually, the Ministry of Health has been very consistent in its stance here: E-cigarettes are viewed in the same way as nicotine patches, gums and inhalers, except that present evidence for e-cigarettes as an effective nicotine-replacement therapy is not definitive. Nevertheless, e-cigarettes can qualify as a therapeutic product made accessible by prescription should there be clear and reproducible evidence to justify such use.

This is a responsible and calibrated approach in formulating public health policies.

There are numerous recent innovations in healthcare, many of which deliver better-quality care or produce tangible improvements to the health of an individual. The role of a judicious health system is not to embrace every innovation indiscriminately, but instead to carefully evaluate whether a particular innovation delivers greater benefit than the costs incurred, and whether more beneficial alternative solutions are available.

However, in situations where such costs and benefits are unclear, prudence dictates that policymakers should not rush to embrace the innovation. Here, there is an important and recent lesson gleaned from the vaccine world.

Dengvaxia was a dengue vaccine that offers partial protection against dengue infection. Vigorous debate ensued globally about how it provides clear public health benefits to populations exposed to dengue risk and, as such, health systems in these countries ought to offer the vaccine to the people. Subsequent data confirmed that the vaccine can worsen the symptoms of dengue infection for those who were not previously exposed to the virus. Singapore's Ministry of Health exercised due caution on widespread access to Dengvaxia, thereby averting a public health crisis.

Many people these days do not realise that cigarettes and tobacco products were popularised 60 years ago as health-promoting products, and were even endorsed by doctors, with posters in clinics hawking the health benefits of smoking. Back then, many purported health claims were made after short-term and anecdotal observations, and it took well-designed, long-term studies to debunk the health claims and properly assert the negative health impact of smoking.

While I agree that our current understanding of e-cigarettes way surpasses the naivety towards tobacco products back then, the reality is that much about the impact of e-cigarettes still remains unknown.

Singapore has made a clear stand on e-cigarettes by banning their sale, import, use and possession. This is prudent in the light of what we currently know and do not know about e-cigarettes.

It will be foolish to embrace e-cigarettes now only to find later the health and social costs from e-cigarettes unacceptable. However, a responsible response is also to continue monitoring global evidence on e-cigarettes, and be ready to revise our policy on e-cigarette prohibition when there is data to suggest otherwise.

stopinion@sph.com.sg

• Dr Teo Yik Ying is dean and professor at the Saw Swee Hock School of Public Health, National University of Singapore.