

Journey towards a smoke-free nation

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“A journey of a thousand miles begins with a single step.” Singapore’s journey towards a smoke-free society started early in the 1970s when legislations were introduced to restrict smoking in certain public spaces and ban tobacco advertising.¹ The National Smoking Control Programme was launched in 1986 with important objectives set to prevent youths from picking up the smoking habit, help current smokers quit, protect non-smokers from second-hand smoke, and tighten regulations against smoking. Public health campaigns and outreach programmes to schools, youth organisations, army camps and workplaces were conducted. There was widespread dissemination of information on the hazards of smoking through mass media coverage and printed materials. Singapore was among the first 40 countries to ratify the World Health Organization (WHO) Framework Convention on Tobacco Control, with its 6 recommendations supporting tobacco cessation—including monitoring tobacco use, protecting people from tobacco smoke, offering smoking cessation assistance, warning dangers of tobacco, enforcing bans on tobacco advertising, and raising taxes on tobacco.²

An important part of Singapore’s tobacco control efforts is the provision of assistance for smokers on their attempts to quit. Smoking cessation services were incorporated in primary healthcare settings from the 1990s and have since expanded to form a vast network including hospitals, polyclinics and retail pharmacies with over 150 touchpoints where smokers can easily access counselling services and pharmacotherapy. In addition, the “I Quit” programme under the Singapore Health Promotion Board offers tools such as daily tips and encouragement, motivational exercises and other support services such as the QuitLine where smokers can access consultants for personalised advice. There is even a Facebook community club where individuals can share experiences and form a support network for smokers and ex-smokers. Leveraging technology, online modules and mobile applications have enabled smokers who are more technologically proficient, especially youths, to easily access help for smoking cessation. All these measures are well aligned with recommendations in the recently

published WHO clinical treatment guidelines on tobacco cessation, highlighting the roles of evidence-based behavioural interventions, pharmacological treatment and digital cessation interventions.³

The smoking prevalence rate in Singapore declined remarkably from 23% in 1977 to 13.6% in 2007, but subsequently plateaued and remained in the range of 10 to 15% for more than a decade despite successive increases in the excise duty on cigarettes and expansion of public spaces where smoking is prohibited.⁴ In the fourth quarter of 2023, the smoking prevalence rate in Singapore fell below 10% for the first time.⁵ This may be attributable to behavioural changes associated with health and financial concerns or tobacco accessibility during the COVID-19 pandemic, as well as the raise in minimum legal age for access to tobacco from 18 to 21 years old since January 2021.

To advance further from the current situation to our goal of becoming a smoke-free nation, we should consider strategies beyond the existing prohibitive measures to prevent young people from taking up the smoking habit and explore factors that motivate smoking cessation to develop solutions tailored to specific needs among current smokers. For example, imposing a generational ban on the sale of tobacco to those born after a certain year, a proposal that had been conceptualised by Singapore back in 2010, is now being considered in the UK as a potential step to phase out smoking.

The study by Koh et al. provides useful insights into tobacco consumption behaviour in Singapore, a high-income country with a multi-ethnic population and a well-established framework for provision of support for tobacco cessation.⁶ The findings showed 31.3% and 41.2% of current smokers in Singapore had intentions to quit and made quit attempts in the previous year, respectively. Among ever-smokers, the overall prevalence of smoking cessation was 25.25%. These figures highlight the gap between intention and action, as well as the importance of finding ways to translate quit intentions to concrete actions and eventual success.

Unlike most other studies, Koh et al. focused on identifying factors that may be associated

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with quit intention, quit attempts and successful cessation. Significant factors as highlighted below include ethnicity, education level, marital status, doctors' advice and the perception of risks from smoking.

Malay and Indian smokers were more likely to have contemplated or attempted quitting compared to Chinese smokers. This is notable given that previous surveys consistently showed an increased prevalence of current smokers among these minority races. Notwithstanding the lack of successful smoking cessation outcomes, this suggests a need for more attention and resource allocation to address barriers to successful quitting in this population of motivated smokers.

Education affects health literacy and the perception of smoking-related risks. The level of education attainment may also be an indirect measure of socioeconomic status. Therefore, a decreased understanding and responsiveness to health messages, or a lack of means to access smoking cessation treatment may explain the association between lower education level and reduced likelihood of quit intent and poorer smoking cessation outcomes. It would be important to design interventions that are both literacy- and culturally appropriate, and simple enough for everyone to grasp. These may include simplified messaging, improving support services to these groups, and addressing the social determinants of health.

Marital status also appears to have an impact on smokers' intention and attempts to quit smoking. Current smokers were less likely to quit if they are single, separated, divorced or widowed. Separately, a longitudinal study by Falba and Sindelar found that if a spouse quits smoking, the odds of the partner's cessation increased by up to 7.5 times among men and 8.5 times among women.⁷

Smokers who receive advice from their doctors to quit were more than twice as likely to attempt quitting, a finding that is supported by global literature citing benefits of doctors' advice on smoking cessation rates. For example, Stead et al. found that even with a brief and simple doctor's smoking cessation advice, a smoker is more likely to quit successfully and remain smoke-free after 12 months.⁸ Doctors should make it a priority to identify opportunities for the systematic provision of smoking cessation advice in various settings such as peri-operative care, hospitalisation for smoking-related diseases, or as part of chronic disease management in both primary and specialist care.

The link between perceived level of risk from smoking and likelihood of quitting further empha-

sises the importance of appropriate communication between doctors and patients about the harms of smoking. On this note, the inclusion of graphic warning labels on cigarette packs is also an effective means to convey the health risks of tobacco and motivate smokers to consider quitting.

Among the biggest concerns faced in our efforts to completely phase out tobacco is the growing popularity of electronic cigarettes (e-cigarettes) from early last decade. Studies have repeatedly shown evidence confirming the association between the use of e-cigarettes by non-smoking adolescents and subsequent tobacco smoking initiation, suggesting that vaping provides a gateway to smoking for the youth.^{9,10} One survey reported 85% of youths between 15 and 30 years of age were exposed to e-cigarette advertising across multiple media platforms despite restrictions on tobacco advertising.¹¹ Such exposure leads to a higher rate of e-cigarette use among the youths, increasing their likelihood by nearly 3 times of becoming traditional cigarette smokers in the longer term.

Vaping-related offences in Singapore have continued to increase in consecutive years despite its ban on vaping since 2018 and tightening enforcement measures. This rising trend can be explained by multiple factors—strong addictive potential of vaping, ease of access and concealability of e-cigarettes, and lower cost compared to traditional cigarettes. The tobacco and related industries today have more communication channels to engage youths through various global digital platforms such as Instagram and TikTok. A large cigarette company in Indonesia has even experimented with marketing cigarette brands as part of a music campaign in the Metaverse.¹² In addition, delivery services like Uber that offer delivery of e-cigarettes in South Africa, have made it easier for one to access these products.¹² Therefore, more enforcement efforts, more public health education and certainly more research would be needed to find new strategies to counter these exploitative practices by the tobacco industry.

The cost of smoking cessation therapy is often seen as a barrier to help-seeking among smokers. Perhaps more consideration should be given to weigh the expense of treatment against the economic impact of continued smoking and emphasise the potential financial benefits of smoking cessation. According to a study on the expenditure of smokers in Asia-Pacific countries, the estimated annual expense (USD3777; approx. SGD 4950) and lifetime spending (USD 207,398; approx. SGD271,769) of purchasing a pack of cigarettes per

day in Singapore were among the highest in the region.¹³ Besides the direct expenses of smoking, indirect expenditures such as a loss of productivity due to smoke breaks and absenteeism from work, as well as the costs of treating smoking-related illnesses, contribute to a much higher economic burden on both the individual and society. Studies on the economic impact of integrating smoking cessation interventions in the care of certain patient populations such as cardiac, respiratory and oncology patients have demonstrated cost-effectiveness with significant clinical benefits achieved at low incremental costs.^{14,15}

Other factors that impede delivery of smoking cessation assistance, although less studied, include a lack of time and training reported by healthcare providers, as well as the perception of smokers' responsibility for smoking. The former can be addressed through greater emphasis on smoking cessation teaching in medical education, as well as using smoking cessation templates and protocols, supported with electronic prompts to improve the rate of smoking cessation treatment delivery. More effort should be made to help healthcare providers, particularly in their junior years of training, recognise smoking as an addiction and disease rather than simply a lifestyle choice.

Singapore's journey towards becoming a smoke-free nation offers valuable lessons for tobacco control regionally and globally. The country's comprehensive approach—combining strong policies, cessation support and public education—has achieved significance in reducing smoking rates thus far. The study by Koh et al. provides a better understanding of factors influencing smoking cessation in Singapore's unique context, which would help our healthcare providers, policymakers and researchers refine strategies to address persistent challenges and target interventions more effectively. With a solid foundation for future research and policy development, we hope that Singapore can tackle the "last mile" of tobacco control and realise its vision of a truly smoke-free society.

Declaration

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