

## Singapore and the Tobacco Pandemic

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The World Health Organization, in its 2008 Report on the Global Tobacco Epidemic, has framed the problem in almost apocalyptic terms, in stating that tobacco smoking is now the number one preventable cause of death globally.<sup>1</sup> Smoking will kill up to 1 in 2 smokers and is a major cause of death in 1 in 10 adults. Moreover, with 1.64 billion smokers expected by 2030, a 21% increase from 1.3 billion today, tobacco will be associated with nearly 10 million deaths per year and a total of 175 million deaths from 2008 to 2030. This pessimistic tone is especially strident when referring to developing countries, in which rapid economic growth appears, against all medical sense, to fuel escalating tobacco production and consumption.

In Singapore, however, the picture is a bit different. Because the government had implemented several sustained anti-smoking campaigns since the 1970s, with very strong legislation on tobacco taxation and prohibition in public places, there is a falling trend of tobacco consumption and, currently, its rate, about 13%, is among the lowest of the developed countries. However, even in Singapore, we are a very long way from tobacco eradication and from being a “Nation of non-smokers” which is the theme of our National Smoking Control Program.<sup>2</sup> There is no room for complacency because 1 in 5 Malay men still smoke, and smoking has increased in frequency among young women. Thus, current smoking cessation efforts are targeted at these high risk populations. In particular, and consistent with the theme of this year’s World No Tobacco Day, the emphasis is on preventing cigarette addiction among the young.<sup>2,3</sup> Singapore is also home to a large number of migrant workers, about 30% of the 4.4 million population,<sup>4</sup> many of whom have originated from developing countries with very high rates of cigarette consumption.

With regards to the effectiveness of smoking cessation programmes, there is a wide gap between what is possible to achieve in clinical trials and the reality in everyday practice. Among the best long term results of a high quality smoking intervention programme are those reported in the Lung Health Study. This was a prospectively randomised trial which enrolled over 5000 middle-aged smokers with airways obstruction in an intensive 12-week smoking intervention programme, versus usual care.<sup>5</sup> The long-term

results at 11 years of follow-up showed that 22% of subjects in the intervention group maintain abstinence, compared with 6% in the control group.<sup>6</sup> This 1 in 5 rate of quitting was achieved with behavioural therapy and nicotine gum replacement. Even this relatively low rate of quitting resulted in significantly lower all-cause mortality at 14.5 years (8.8 per 1000 person years, vs 10.4 per 1000 person years;  $P=0.03$ ).<sup>7</sup> We anticipate that, with the administration of newer pharmacological agents such as bupropion and varenicline, even better results might be achieved.<sup>8,9</sup> By contrast, casual physician advice about smoking cessation during clinic visits are extremely ineffective, and might make an absolute difference in cessation rates of only 2.5%.<sup>10</sup> Nevertheless, it has a vital priming effect, and may trigger up to one-half of the patients into taking the next steps in behaviour change.<sup>11</sup> Thus, to be more effective, physician advice must be escalated to formal counselling and linked to more intensive, systematic personalised information which leads to cessation. Current quit programmes will also need to be augmented by drug treatment in selected patients. There is an urgent need for far more effective ways to bridge this gap between what is achievable in the best experimental trials and current realities in routine clinical practice.

So, what has been the role of the physician in Singapore in creating a “Nation of non-smokers”? Well, some indirect results from the Ministry of Health’s (MOH) Chronic Disease Management Program (CDMP) are not encouraging. Physicians who enroll their patients in this programme, which will enable them to claim (partial) reimbursements for their clinic visits using their Medisave accounts, are required to report some basic outcome indicators to the MOH. Enquiry about smoking status is an outcome indicator for all the conditions covered by the CDMP. While the rate of reporting of the other clinical outcome indicators such as blood pressure, serum lipid levels and HbA1c levels is >60%, the rate of reporting on smoking status is about 6%, and is consistently the lowest reported among all the mandatory indicators. (unpublished data from MOH). By contrast, the American National Ambulatory Medical Care Survey, in an annual survey of a random sample of office visits to US physicians, between

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2001 and 2003, reported that physicians identified patients' smoking status at 68% of visits, and physicians counselled about smoking at 20% of smokers' visits.<sup>12</sup> Thus, in comparison with our American counterparts, doctors in Singapore need to play a much greater role in promoting a smoke free nation. One reason for the apparent nihilism of doctors in Singapore may be the relative lack of convenient access to formal smoking cessation programmes in routine primary practice.

In conclusion, while Singapore as a whole, by global standards, is not the worse affected by the tobacco pandemic, many segments of the population are still addicted and at risk. There is an urgent need to bridge the translational gap between theory and practice in smoking cessation, particularly in primary care.

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