

The modern cigarette, an unregulated disaster

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Regulation of tobacco products and their emissions is long, long overdue

The modern cigarette is an unmitigated public health disaster, more so than tobacco used in any other form. Together with other types of tobacco product, cigarettes are responsible for several million global deaths annually and expected to cause about 10 million annually by 2030.¹ Modern cigarettes are uniquely efficient nicotine delivery devices because of sophisticated technology that controls such elements as pH and droplet size, and consequently provides rapid absorption and a rapid nicotine “fix” while using less tobacco, but many more additives, than its Second World War predecessor.²

Australia is at the forefront of the battle to control diseases caused by tobacco through the use of regulation of marketing and vigorous antismoking campaigns. The result is that “only” about a fifth of Australians smoke, and index diseases such as lung cancer and heart disease are declining in prevalence. There is, however, a strong social-class factor evident among continuing smokers, with the less educated and less well remunerated being over-represented in this population.³

Given Australia’s exemplary role in the regulation of cigarette marketing, it is bizarre that no regulations at all are applied to the product or its emissions. In this respect Australia is no different to most other countries as, apart from meaningless restrictions on tar, nicotine and carbon monoxide in Europe, no country worldwide has established control over cigarette emissions. A potential exception may be the United States, which currently has a bill before

Congress that would empower the Food and Drug Administration to regulate cigarette emissions.

The World Health Organization is moving to change this with its publication, *The scientific basis of tobacco product regulation*.⁴ This technical report sets out a practical rationale for regulating tobacco smoke, and makes specific recommendations for setting upper limits for two of the best understood carcinogens, the tobacco-specific nitrosamines, 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) and N-nitrosornnicotine, with the indication of more proposals to follow, plus discussions of design features that contribute to toxicity and marketability, such as candy flavourings, and recommendations for future research.

Consumer products of virtually all types *are* regulated. Controls apply to almost every marketed product, from the proportion of rat droppings permitted in wheat, to the amount of fat allowed in sausages, and even to the amount of mint allowed in nicotine replacement therapy.

With this background, it seems astonishing that the federal Minister responsible for drug and alcohol policy recently rejected claims that a new tobacco product (a “heatbar” which heats but does not burn tobacco) should be subject to regulation and said there were no plans to even investigate the product.⁵ This product is unlikely to be any worse than other tobacco products. It may even be an improvement, but we won’t know if it is not to be investigated.

There seems to be a general view that all cigarettes are dangerous, which is true, but also that they are all virtually the same. Not true. Nitrosamines, for example, are potent carcinogens whose level can readily be reduced, almost to the point of elimination, by the manufacturers, but this would increase production costs and the tobacco industry is moving very slowly, in most places not at all, to reduce them. A global analysis of the Philip Morris brand, Marlboro, in 1996 showed a ninefold variation in the amount of NNK per cigarette.⁶ This would be unremarkable if it was merely a flavouring agent. However, it is a carcinogen and such unnecessary variation should not be allowed. Most industries would move in this direction voluntarily, but the tobacco industry long ago gave up trying to make cigarettes “safer”.⁷ Instead, their research has focused on ways to make nicotine better absorbed, and for cigarettes to be more flavoursome as well as less harsh.⁸

The need to regulate the constituents of cigarette smoke is not trivial. With one in five Australians still smoking, and with even higher proportions among the blue-collar end of the social spectrum, the tobacco-associated death rate will remain unnecessarily high. It is high time to regulate to reduce those major toxins and carcinogens that can be reduced, as this is one way to help continuing and addicted smokers. The WHO has led the way and will continue to recommend practical changes. Countries as sophisticated as Australia should be able to move ahead of other less developed countries and, in the case of a new and untested product, could be expected to do so as a matter of urgency.

The Australian Government should recognise the WHO recommendations and set in train a process of tobacco regulation — one that is flexible and can be updated as the WHO continues to

develop its regulatory program. This would be consistent with the approach taken to both pharmaceuticals and other consumer products, and is very long overdue. Now that the WHO has set out a practical approach, the federal government has few excuses for further delay.

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