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Can Norway become a smoke-free nation?

COMMENTARY

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The number of daily smokers in Norway is in the process of falling to below 20 %. Nevertheless, the number of smokers has only been reduced by about 400 000 males (from 1960) and 150 000 females (from 1975). The socio-demographic composition of today's daily smokers is very different from what it was in the 1960s and 1970s. In addition many people smoke occasionally, mainly in connection with parties. Is the goal of a smoke-free Norway realistic?

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A totally tobacco-free society – that is the aim of the *Tobacco-free*, a coalition of organisations including the Norwegian Medical Association. Minister of Health Anne Grethe Strøm-Erichsen has stated that this is a long-term goal. In 1989 the Norwegian Medical Association was involved in launching an action plan for a smoke-free Norway in 2000. However, at the turn of the century 40 % still smoked on a daily basis or were occasional smokers. Is the vision of a smoke-free nation still realistic?

The development in tobacco consumption in Norway closely resembles that of Australia and the US (1). If the initiation of new smokers and the cessation of current smokers continue at the same rate as after 1980, it will take from thirty to forty years for the proportion of smokers in the population to stabilise at around 10 % (2, 3). This roughly corresponds to today's level for health personnel – people we assume are best informed about the negative health effects of smoking. Perhaps a more realistic short-term goal might be to reduce the proportion of smokers in the population to the same level as for health personnel. Nevertheless, smoking will continue to be one of our greatest health problems in the foreseeable future – unless new measures are introduced.

Will new measures succeed in making Norway a smoke-free country?

Norway scores high on international rankings when it comes to anti-smoking measures (4). We have already made use of most of the policies recommended by the World Health Organisation but further measures are underway. The Norwegian Medical Association has proposed that the age limit for buying tobacco should be raised from 18 to 20 years of age, tobacco duties should be increased and that a licence should be introduced for tobacco sales linked to outlets that are already licensed to sell beer. In practice this proposal entails

halving the opening hours and reducing the number of sales outlets from approximately 18 000 to about 4 000. Moreover, it is proposed that the right to bring back a quota of duty-free tobacco when returning from a holiday abroad should be discontinued – tax-free sales constitute approximately 20 % of Norwegians' cigarette consumption.

Tobacco-free has suggested a ban on smoking outside restaurants and cafés and at stops/terminals for public transport. For a long time the Norwegian Cancer Society has directed efforts towards forbidding pupils at upper-secondary schools to smoke during the school day. More and more municipalities are banning employees from smoking during their work-hours. The Ministry of Health and Care Services has given notice that it intends to make a closer examination of the right to smoke in cars and in the vicinity of children.

There is little likelihood that the target of 10 % smokers in the population will be achieved through these measures, seen in the context of the decline in the number of smokers that has already taken place. Four decades of increasingly comprehensive preventive measures have resulted in a total of 700 000 ex-smokers. We are left with a hard core of smokers who are probably less and less receptive to restrictions and campaigns (5). Some of them live in circumstances that reduce their ability to succeed in their attempts to stop smoking. Others make the decision to continue smoking after rationally weighing the advantages and the disadvantages (6).

Moreover, society is in a process of change. Information campaigns have resulted in a high degree of knowledge of the harmful effects of cigarettes. The introduction of limitations on where you can smoke has meant that smoking is regarded as a social aberration in a growing number of arenas. Overall these measures have created strong anti-tobacco societal norms which can only be strengthened to a limited degree by further restrictions. Smokers are more opposed to further limitations on sales and access than ever before (7). This increases the risk of low compliance with new measures thereby resulting in reduced impact. In Ireland the proportion of smokers has remained stable after the country introduced Europe's most restrictive tobacco policies (8).

Are there alternatives?

Belief in a tobacco-free society receives little backing from behavioural research on smoking. The «capitulation» of researchers may be regarded as a recognition that the usefulness of intensifying existing instruments is decreasing. This is caused by such factors as society becoming increasingly opposed to tobacco, the changed socio-demographic composition of the group of smokers and mathematical projections based on the rates of initiation and cessation. Instead, several researchers have launched untraditional instruments to reduce the incidence of tobacco-related diseases. These suggestions have angered many supporters of the vision of a smoke-free nation. The suggestions include for example decreasing the nicotine content of cigarettes (product control), a transition to less hazardous tobacco products for

«incurable» nicotinists (damage-reduction) and the release of more efficacious nicotine products by the pharmaceutical industry and other commercial interests.

In several articles the well-known tobacco researcher Kenneth Warner has emphasized that further restrictions, information and special duties will fail to reduce the proportion of smokers in western countries to 10 % (9, 10). In order to reduce the global tobacco-related mortality Warner has discussed an alternative scenario in which the pharmaceutical industry is offered conditions allowing them to produce «pure» nicotine products that will compete with cigarettes and moist snuff (*snus*), but will not have the harmful additives of these products. (8). For example, he envisages a cigarette-like inhalator that delivers nicotine directly to the lungs in as large doses as cigarettes. The potential for retaining dependence would be far higher than with the use of today's pharmaceutical products which had little effect in randomised studies (11) and no effect on the level in the population (12). If such products are to be put on the market, we must begin to regard nicotine dependence as an acceptable alternative to cigarette dependence. We should regard smoking as a chronic disease that requires lifelong medication – in the same way as patients with hypertension need blood pressure medication.

To motivate smokers to change over to these new products Warner stresses that delusions about the damage-potential of nicotine must be corrected – nicotine in a pure form is not especially harmful at low exposure. In addition, nicotine products must be attractive and must possess the same identity-creating functions as cigarettes. An expert group with its origins in leading British health organisations has recommended encouraging the commercial production of such «pure» nicotine products, giving them better conditions for competition, including lower duties than tobacco, and making them widely available and socially acceptable (13).

Will the boundaries between the pharmaceutical industry and the tobacco industry be erased?

Today nicotine products from the pharmaceutical industry have few side-effects and a low potential for dependence. The industry's reputation would be questioned if a new generation of products were to be associated with dependence and abuse. Both the pharmaceutical industry and the moist snuff (*snus*) industry produce nicotine products based on the tobacco plant. But these have a far lower damage-potential than those produced by the cigarette industry. (14). While the pharmaceutical industry is regarded as an ally in the struggle to combat diseases caused by smoking, the *snus* industry is understandably regarded as a cynical profiteer because its products are also targeted towards young people with no previous experience of smoking.

Warner envisages a future where we may have to face a situation in which these three players fight for market segments and buy shares in each other's business enterprises. Recently the pharmaceutical company Niconovum was bought by Reynolds, the multinational cigarette corporation. As regards nicotine products

today, pharmaceutical nicotine products have a market share of from 1 – 2 % (in western countries), *snus* has a market share of roughly 25 % (in Norway) and life-threatening cigarettes have a market-share of approximately 73 % (in Norway). Of course ideally the total volume of the nicotine should be reduced in line with the wishes of *Tobacco-free* and others. However, this is very unrealistic, at any rate short term. A more pragmatic, though perhaps more controversial, alternative is the promotion of a changed market mix. The vision of a smoke-free nation may hinder measures that can reduce tobacco-related mortality.

Reported conflicts of interest:

None

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