Should Smokers be Advised to Cut Down as well as Quit? No.

BMJ

BMJ 2014;348:g2787 doi: 10.1136/bmj.g2787 (Published 19 May 2014)

HEAD TO HEAD

Should smokers be advised to cut down as well as quit?

Paul Aveyard and **Nicola Lindson-Hawley** say that reducing smoking is a worthwhile step towards cessation, but **Gerard Hastings** and **Marisa de Andrade** argue that the lifelong nicotine replacement therapy being recommended in support may benefit industry more than public health

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Yes—Paul Aveyard and Nicola Lindson-Hawley

Currently, more than half of all smokers in England are trying to reduce the number of cigarettes that they smoke.[1] It seems perverse to discourage this positive behavioural change, but is it useful to encourage more smokers to cut down and to support those who do? We believe that it is.

Cutting down aids quitting

People who are cutting down are more likely to attempt to quit and to succeed than are those who are not cutting down.[2] This may be down to motivation to stop. People who are not cutting down are probably less motivated to stop than people who are. However, even when we take every possible step to adjust for differences in motivation, people who are cutting down are more likely to make a future quit attempt than people who are not.[3] There are some good reasons why reduction might promote cessation. Nicotine addiction leads to neuroadaptation, and cutting down on smoking might reverse some of this, leading to less craving and withdrawal after stopping—the primary drivers of relapse.[4] Reduction may weaken the conditioned response created by smoking, making relapse less likely to be triggered by exposure to cues to smoke after quitting. In addition, reduction is more similar than abstinence to the smoker's current behaviour, and this could increase smokers' confidence that they might succeed.

However, despite showing that reducers are more likely to quit than non-reducers, the evidence shows that people are not very successful at cutting down, with reducers smoking only about two cigarettes a day fewer than non-reducers.[5] Teaching people methods to help them cut down seems to increase reduction and the chance of achieving cessation.[6] There is little evidence that smokers are using behavioural methods of reduction, and the development of programmes and self help methods to assist reduction might lead to better outcomes than are currently achieved.

As well as behavioural methods, we might achieve a greater rate of cessation by encouraging reducers to use nicotine replacement. Randomised trials provide evidence that nicotine replacement therapy (NRT) can double the rate at which reducers eventually stop smoking.[7] Many people and some doctors worry that nicotine itself is toxic, but any harm will be trivial compared with the harm that arises from smoking tobacco.[8] As has been said, people smoke for the nicotine but die from the tar.[9] Only a minority of people who are reducing use nicotine replacement.[1] Greater promotion of smoking reduction and using nicotine for this would mean that more people stop smoking.

Stopping and reducing are not dichotomous

The argument against encouraging and supporting reduction is that it may divert smokers from stopping to reducing. This argument rests on the evidence that cutting down without stopping smoking does not reduce risk or improve health.[10] The fear of promoting cutting down as well as cessation is based on the belief that smokers may take the easy route of cutting down alone and not stop altogether. There is no evidence for this belief. People who are cutting down report that they are doing so mainly with a view to stopping completely.[11] When people who are trying to stop smoking are observed each day they cycle rapidly between trying to stop and trying to cut down,[12] suggesting that cutting down and stopping are not the dichotomy that this debate presupposes. Even in people following formal programmes, those who follow a reduction programme before quitting and those who follow the traditional abrupt route have similar rates of quitting.[13] We will never know what promoting reduction will achieve or risk unless we do it. However, formal modelling as well as the behaviour of smokers who cut down

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give us confidence that risks are low and the potential gains are great.[14]

Electronic cigarettes can support reduction, and the great increase in their popularity shows that people who smoke are keen to reduce and stop.[1] We know already that e-cigarettes function like any other form of nicotine replacement therapy but seem to be more attractive to smokers.[15] They are now the most commonly used cessation aid in England.[1] About one in six English smokers uses electronic cigarettes concurrently with smoking, and these people are doing so without any official encouragement or support from health education or health professionals.[1] We seem to be approaching the situation where we have a genuinely desirable alternative to the cigarette. Using the best behavioural science, we can capitalise on this consumer movement and accelerate the end of cigarette smoking.

No—Gerard Hastings and Marisa de Andrade

The UK National Institute for Health and Care Excellence (NICE) now recommends that people who cannot quit smoking should be supported to cut down with long term use of nicotine replacement therapy.[16] Over the past decade and a half, tobacco control in the UK has become increasingly focused on the battle that would-be quitters fight against their addiction to nicotine. From this perspective, the key public health challenge is to help break this dependency or, failing that, at least to make the dependency less harmful. Nicotine replacement therapy such as patches, gum and inhalers, other drug treatments including antidepressant bupropion and nicotine suppressor varenicline, intensive cessation services, cutting down smoking before quitting, and now cutting down whether you intend to quit or not, are all strategies that have resulted from this thinking.

The desire to rehabilitate nicotine and to present tar as the only villain has also followed. "People smoke for the nicotine but die from the tar" has become a remarkably popular quote in UK tobacco control circles.[9] However, it comes from a paper that rejected both prevalence reduction and cutting down strategies as unrealistic, recommending instead that tobacco control focus on reducing the tar content of cigarettes. In fact, low tar proved to be a chimera that the tobacco industry exploited very effectively.[17] Now the newly landed, tar-free electronic cigarette has resuscitated the idea of cleaner cigarettes. When the only obstacle to progress on preventing the harms of smoking is the user's dependence, e-cigarettes offer the beguiling prospect of addicted smokers migrating painlessly to safer mechanisms of nicotine delivery.

However, this thinking is by no means universally accepted. In particular, other jurisdictions are not welcoming the e-cigarette with the UK's enthusiasm. Australia, for example, has taken a more cautious approach. Products that contain nicotine contravene existing legislation on poisons and so are banned unless they have been proved to work as cessation aids—and so far none have been deemed to pass this test.

Internet sales mean that e-cigarettes are being used in Australia, but in very small numbers, and they have none of the UK's evocative marketing, childish flavourings, and colonisation of point-of-sale space so recently liberated from tobacco.[18 19]

Mike Daube, professor of health policy at Curtin University, director of the Public Health Advocacy Institute in Perth, and president of the Australian Council on Smoking and Health, said, "All [Australian] governments and major health agencies are holding very firm on a precautionary position—there is no compelling evidence that they [e-cigarettes] are any better than other cessation products; little is known about long-term use; there is worrying evidence about use by young people elsewhere; massive concern about tobacco industry involvement/promotion/normalising smoking . . . and, of course, in Australia we have made pretty good progress thus far [in reducing smoking prevalence] and we are looking for a further decline, especially with government committed to four successive years of substantial excise duty increases" (personal communication, 30 April 2014).

The Australian strategy is core public health: cautious, evidence based, leery of disease vectors, and led by population level measures. The divergence from the UK strategy stems from a different characterisation of smoking, which is seen not just as a matter of individual dependence but as a social, political, and business phenomenon involving multiple vested interests—less a dyad between smoker and nicotine and more a *danse macabre*. Interestingly, as Daube's remarks imply, Australia is doing very well—latest figures show that smoking prevalence there has dipped to 16.1% [20]

Commercial exploitation of reduction

This more complex view alerts us to potential hazards that lurk in the real world, beyond the consulting room and the randomised controlled trial. In particular, two corporate players come into focus: the pharmaceutical and tobacco industries. The drug industry set the ball rolling with a desire to increase the profitability of its nicotine replacement products. One way to do this was to turn these cessation products, which require only short term use, into maintenance products. If patches, like cigarettes, were used for decades they would deliver the same lucrative returns. Applications were therefore made to extend product licences, first for use in cutting down smoking with a view to quitting and then simply for cutting down. These succeeded and culminated in NICE endorsing lifetime use of nicotine replacement therapy.[21] But then things started to unravel.

Tobacco multinationals were watching carefully and saw opportunities in the more nuanced stand on nicotine. They are, as they long ago acknowledged, "in the business of selling nicotine, an addictive drug,"[22] and this practice was being subtly but unmistakably legitimised. They also welcomed the move from outright cessation to a more forgiving agenda of harm reduction.[23] As long ago as 2009, British American Tobacco (BAT) was presenting to NICE on the commercial benefits this offered: "We aspire to reduce the harm caused by smoking by evolving our products to a portfolio of commercially successful lower risk products, to meet consumer and societal expectations."[24]

This promised move to lower risk products has, with Orwellian skill, now become a "risk spectrum" of products "based on their toxicant levels. Conventional cigarettes carry the highest risk while appropriately regulated nicotine products, which offer nicotine without tobacco or smoke toxicants, are substantially less risky."[25] It is this "pragmatic approach" that means that BAT can continue selling cigarettes but devolve responsibility for risk taking to its customers.

The e-cigarette has arrived noisily into this scene, with its capacity to beat traditional NRT by replicating the nicotine spike of tobacco cigarettes. The UK's laissez-faire regime has enabled an explosion of new products along with intense promotion in every available channel. The tobacco multinationals have leapt enthusiastically into this market; all now have major e-cigarette interests.[26] This is not a consumer movement but the full

onslaught of corporate capital in hot pursuit of a profitable opportunity.

In conclusion, any move away from tobacco by smokers is to be welcomed, and cutting down is no exception. However, smoking is about much more than nicotine addiction, and when addiction becomes overly dominant in the policy debate, as it now has in the UK, the principal beneficiaries are likely to be the multinational tobacco companies.

Competing interests: We have read and understood BMJ policy on declaration of interests and declare the following interests: PA has done occasional days of consultancy for McNeil and Pfizer on smoking cessation and was the chief investigator of a trial sponsored by McNeil. NL-H reports personal fees from manufacturers of smoking cessation aids and manages a National Institute for Health Research Health Technology Assessment funded trial of nicotine patch preloading. The nicotine patches for the trial are provided free of charge by GlaxoSmithKline (GSK). GSK has no other involvement in the trial.

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Cite this as: *BMJ* 2014;348:g2787