Many governments are actively considering whether and how to provide their population with assistance with smoking cessation. Arguments have been raised against this, but these are often based on fallacies (e.g. most smokers stop without help so assistance is unnecessary). This editorial counters these fallacies so that a constructive debate can be had about the role of cessation assistance in the tobacco control strategies for a given population.

Article 14 of the Framework Convention on Tobacco Control [1] states that every country should provide smoking cessation assistance, and implementation of this is now being considered by many countries. However, it has been argued that offer of assistance with stopping should not be a major part of a country’s tobacco control strategy e.g. [2]. This viewpoint has been restated recently and gained some media attention (e.g. [3]). It is therefore important to draw attention to fallacies in the arguments that are often used against providing assistance with stopping smoking so that discussion on its role within a comprehensive tobacco control strategy can be based upon evidence and logic rather than misconceptions.

**FALLACY 1: MOST SMOKERS STOP WITHOUT HELP SO PROVIDING ASSISTANCE IS UNNECESSARY**

The fact that most smokers who stop do so without assistance does not mean that this is the most effective method of stopping. It merely reflects the fact that the numbers attempting to stop without assistance are greater than those trying to stop with it. To illustrate this point, if 1000 smokers try to stop without assistance and have a 5% chance of success this will create 50 ex-smokers; if 100 smokers try to stop with assistance and have a 20% chance of success this will create 20 ex-smokers. So in this example, more than twice as many smokers will have stopped without assistance as with it, despite the fact that doing it this way was four times less effective. To argue that unassisted cessation is more effective purely from the numbers stopping is to misunderstand this arithmetic.

In fact, most smokers do not stop before smoking has cost them years of life expectancy. In England only 37% of those who have ever smoked for at least a year manage to stop by the age of 35 years [4]. After that age, each year that stopping is delayed costs an average of 3 months of life [5], and smoking at all ages causes substantial harm to others, particularly children. It is therefore vital for smokers to stop at the earliest possible opportunity, and for every quit attempt to have the best possible chance of success.

Of course, smokers differ in the extent to which they are dependent and the ease with which they can quit. In many countries smoking is concentrated in more disadvantaged groups and, on average, dependence is greater in these smokers [6,7]. To implement tobacco control strategies such as increasing taxation, and mass media campaigns that marginalize smokers with social economic and health disadvantage without providing assistance with stopping smoking, is to make them doubly disadvantaged, and must be morally indefensible.

**FALLACY 2: PROMOTING HELP WITH STOPPING IS COUNTERPRODUCTIVE BECAUSE IT MAKES SMOKERS THINK THEY ARE ADDICTED AND SO FEWER TRY TO STOP**

This is supposition. If it were true, then smokers who had taken on board the message that they were ‘addicted’ would be less likely to try to stop; yet in a recent study, smokers who believed they were addicted were actually more likely to make quit attempts than other smokers [4]. It is true that smokers in the United Kingdom, which has placed greater emphasis on assisting smokers to stop than other countries, recall making fewer quit attempts than those in other countries [8]. However, there may be many reasons for this and as methods to aid cessation have become promoted more widely in England, no decrease in the proportion making quit attempts has been observed [9,10].

**FALLACY 3: THE RESULTS OF RESEARCH INTO ASSISTED CESSATION DO NOT APPLY TO THE ‘REAL WORLD’**

One argument used here is that randomized controlled trial evidence of smoking cessation support can be discounted, as it has not proved possible to blind participants as to their allocation to active versus control treatments. Therefore, the results are attributable to participants in the ‘active’ treatment group expecting to do better. If the effects of support were merely expectancy or placebo effects, any medication with side effects and any plausible behavioural support package should show benefits. However, there are many examples of putative pharmacological smoking cessation treatments with obvious side effects that have failed to show benefits (e.g. [11,12]), and
in the case of behavioural support there is no evidence that hypnotherapy, a highly plausible treatment for participating smokers and therapists alike, improves outcomes over and above simple advice [13].

A second argument is that findings from randomized controlled trials do not generalize to the ‘real world’. The data supporting this argument derive from cross-sectional surveys (e.g. [14]) which are subject to considerable potential recall bias and a failure to control adequately for confounders, such as prior nicotine dependence. A recent multi-national longitudinal study with follow-up every 3 months has found that those who used nicotine replacement therapy were more likely to be successful than those who did not [15]. Moreover, an evaluation of the English smoking cessation services has found that nearly one in seven smokers (14.6%) were carbon-monoxide-validated quitters 1 year after receiving treatment, a proportion similar to the outcomes found in clinical trials [16], and substantially higher than that achieved without support.

**FALLACY 4: OTHER TOBACCO CONTROL INTERVENTIONS ARE MORE COST-EFFECTIVE**

It has been argued that smoking cessation support is less cost-effective than other tobacco control interventions, and particularly mass media campaigns. There are two problems with this argument. One is that, whereas the cost-effectiveness of interventions to assist cessation has been evaluated rigorously from randomized controlled trial data supplemented by data from the ‘real world’ and found to be excellent (e.g. [17]), the same is not true for many other tobacco control interventions whose estimates of effectiveness rely necessarily upon more circumstantial data and inference [18]. Therefore we cannot say with confidence what is the relative cost-effectiveness of many of the different interventions.

Secondly, the argument sets up a false dichotomy between clinical interventions and other tobacco control interventions. Different interventions serve different functions and they work synergistically with each other. Thus, what appear to be highly cost-effective campaigns such as No Smoking Day in the United Kingdom [19] do not operate in isolation. They do so in the context of an extensive communications campaign and the fact that there is a national network of smoking cessation services available to support quit attempts. The appropriate mix of interventions will depend upon particular circumstances in the region at any given time. The United Kingdom has introduced smoking cessation services as part of a comprehensive array of tobacco control strategies, including increases in taxation, considerable spending on mass media campaigns, bans on tobacco advertising and promotion, health warnings on packs and comprehensive bans on smoking in indoor public areas [20]. In the last decade smoking rates in England have fallen by a quarter, and assistance with stopping provided by the National Health Service has made a significant contribution to this decline [20]. The assistance has been successful at reaching and helping disadvantaged smokers [21].

In conclusion, there is a meaningful debate to be had about the role that the offer of help with smoking cessation should play in a given population, but that debate needs to be based on facts. With the above fallacies out of the way, it should be possible to engage in this debate in a constructive manner.

**Declarations of interest**

R.W. undertakes research and consultancy for, and has received travel funds and hospitality from, companies that develop and manufacture smoking cessation medications. He has a share in a patent for a novel nicotine delivery device. He is a trustee of the stop-smoking charity, QUIT. His salary and that of much of his research team is funded by Cancer Research UK. He is co-director of the NHS Centre for Smoking Cessation and Training funded by the UK Department of Health. M.R. has, in the last 5 years, had conference expenses reimbursed, been paid an honorarium for a talk and received freelance fees from Pfizer, but has not accepted support from the manufacturers of stop smoking medications in the last 3 years. L.B. is scientific adviser on tobacco control to the UK Department of Health and Vice-chair of Cancer Research UK’s Tobacco Advisory Group. P.H. undertakes research and consultancy for companies that manufacture stop smoking medications. J.S. acted formerly as adviser to the manufacturers of smoking cessation medications, for which he received remunerations and hospitality. M.J undertakes consultancy for Pfizer.

**Acknowledgements**

R.W. and J.S. are supported by a grant from Cancer Research UK. R.W., J.S., A.M., J.B. and L.B. receive funding as part of the UK Centre for Tobacco Control Studies.

ROBERT WEST, ANN McNEILL, JOHN BRITTON, LINDA BAULD, MARTIN RAW, PETER HAJEK, DEBORAH ARNOTT, MARTIN JARVIS & JOHN STAPLETON

Cancer Research UK Health Behaviour Research Centre, Department of Epidemiology and Public Health, University College London, 2–16 Torrington Place, London WC1E 6BT, UK; UK Centre for Tobacco Control Studies, Division of Epidemiology and Public Health, University of Nottingham, Nottingham, UK; Department of Social and Policy Sciences
and UK Centre for Tobacco Control Studies, University of Bath, Bath, UK. 3 Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London, UK 4 and Action on Smoking and Health, London, UK 5.

E-mail: robert.west.ucl.ac.uk

References