

Commentary on Dawkins *et al.* (2013): The current legislation on nicotine causes millions of deaths—it has to change

The study by Dawkins *et al.* shows that vapers are mainly former smokers who feel that electronic cigarettes help them to quit smoking, and current smokers who feel that these products help them to reduce the amount they smoke [1]. Almost all vapers in this study used nicotine-containing refill liquids; they used these products intensively and during several months, they were not particularly young and the use of e-cigarettes by never smokers was marginal. This study also suggests that e-cigarettes are less addictive than tobacco cigarettes, that they have few side effects and that users are very satisfied with these products. These results are remarkably similar to previously published results, but this study adds some new insights, in particular about the differences between men and women for product and flavour preferences, and about the 'hit', an important feature of e-cigarettes that distinguishes them from the approved nicotine inhaler. The first randomized trial testing the effectiveness of e-cigarettes was presented recently as a poster at a conference (it is not yet published), and it showed that nicotine-containing e-cigarettes help smokers to quit [2]. The study by Dawkins *et al.*, along with several previous observational studies, with one randomized trial, and with data showing that the market for e-cigarettes has tripled every year since 2007 in the United States [3], suggests that e-cigarettes are a major innovation that has the potential to help many smokers to quit and to save many lives.

The spectacular success of e-cigarettes challenges the current legislation, which allows nicotine only in its dirtiest form (in tobacco) and in its cleanest form (in approved medication) and prohibits everything between these two extremes. This legislation creates an artificial situation that limits nicotine supply to the tobacco and pharmaceutical industries and excludes all other providers, even though these providers are more innovative than the tobacco and pharmaceutical industries and sell products that are superior to the currently approved medications and to tobacco products.

However, in the European Union, the proposed revision of the directive regulating tobacco products is wrong-headed. In this revision, electronic cigarettes that result in blood nicotine concentrations of more than 4 ng/ml (nanograms per millilitre, a very low level, similar to levels observed in non-smokers exposed to light levels of passive smoking) will need to be approved as

medicinal products [4]. If implemented in this form, this directive would essentially kill the e-cigarette market in Europe, and therefore have seriously adverse effects on public health. There is an urgent need for a public debate on the place of nicotine in our society, and this debate should result in sensitive regulations that allow people who are addicted to nicotine to obtain nicotine not only in tobacco and in medications, but also in innovative products, including e-cigarettes. Even if these products are less safe than medications, they are much safer than tobacco. Otherwise, millions of people will continue to die unnecessarily every year of smoking-related diseases, and these diseases will impose an insuperable burden on health and insurance systems. This situation has to change.

Declaration of interest

J.F.E. was reimbursed by a manufacturer of refill liquids for electronic cigarettes for travelling to London and to China, for mutual information, but he was not paid for these meetings.

Keywords electronic cigarette, legislation, nicotine.

JEAN-FRANÇOIS ETTER

IMSP—CMU, 1 rue Michel-Servet, Geneva 4 CH-1211, Switzerland. E-mail: jfe@jfe.ch

References

1. Dawkins L., Turner J., Roberts A., Soar K. 'Vaping' profiles and preferences: an online survey of electronic cigarette users. *Addiction* 2013; **108**: 1115–25.
2. Caponnetto P. The efficacy and safety of an electronic cigarette (ECLAT) study: a prospective 12-month randomized control design study. XIV Annual Meeting of the SRNT Europe, 30 August–2 September, 2012 (Helsinki, Finland). Available at: <http://www.srntheurope.org/assets/Abstract-Book-Final.pdf> (accessed 8 April 2013) (Archived at <http://www.webcitation.org/6FNn3CBtO> on 28 March 2013).
3. Koch W. E-cigarettes: no smoke, but fiery debate over safety. *USA Today*, 17 September 2012.
4. European Commission. Proposal for a Directive of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco and related products, European Commission, 2012/0366 (COD), Brussels, December 2012.