

Public Health England and e-cigarettes: confusion or collusion?

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O'Dowd's news on Public Health England's (PHE) review which claimed "e-cigarettes were 95% less harmful than normal cigarettes" and on the wise warning from the Lancet could have been more stimulating.(1,2,3).

Not only is the review not evidence based but it also failed to model. The widespread promotion of e-cigarettes may have a wide range of seriously deleterious population-level health effects such as the renormalisation of cigarette smoking, the diversion of current cigarette smokers and healthcare providers from effective evidenced based treatments, the offer of a new gateway to addiction for the youngest.(4) Moreover, PHE confused health information to lay people with marketing slogans.

Could this may be worse than confusion? PHE is a governmental agency and taxes for cigarettes in the UK, 86%, are a major issue for the government. The tobacco industry argues it contributes £12.3bn/y to the exchequer and Imperial is one of the largest tax contributors in the FTSE 100! This does not take into account the cost savings in pension payments due to smokers' premature death, roughly ten years. Coincidentally, tobacco control seems out of breath: 19 per cent of those aged 16 and over were smokers in 2013, a rate that has remained largely unchanged in recent years.(<http://www.hscic.gov.uk/catalogue/PUB17526>)

PHE began operating on 1 April 2013. After being tackled by Pr McKee (<http://www.theguardian.com/uk-news/2014/jan/08/top-10-causes-death-londo...>) it is now tackled by the Lancet. As things come in threes, what's next?

1 O'Dowd A. Leading journal questions Public Health England's stance on e-cigarettes. *BMJ* 201;351:h4684

2 McNeill A, Brose LS, Calder R, et al. E-cigarettes: an evidence update—a report commissioned by Public Health England. 19 Aug 2015. www.gov.uk/government/publications/e-cigarettes-an-evidence-update.

3 Lancet. E-cigarettes: Public Health England's evidence based confusion. *Lancet* 2015:386;829.

4 Kalkhoran S, Glantz SA. Modeling the health effects of expanding e-cigarette sales in the United States and United Kingdom: A Monte Carlo analysis. *JAMA Intern Med.* 2015. Online Aug 31. doi: 10.1001/jamainternmed.2015.4209.

Competing interests: No competing interests

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http://archinte.jamanetwork.com/article.aspx?articleid=2430796&utm_source=TWITTER&utm_medium=social_jn&utm_term=229096338&utm_content=%7Carticle_engagement&utm_campaign=article_alert&linkid=16643016

Modeling the Health Effects of Expanding e-Cigarette Sales in the United States and United Kingdom A Monte Carlo Analysis ONLINE FIRST

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ABSTRACT

ABSTRACT | INTRODUCTION | METHODS | RESULTS | DISCUSSION | CONCLUSIONS | ARTICLE INFORMATION | REFERENCES

Importance The prevalence of electronic cigarette (e-cigarette) use is increasing. Population health effects will depend on cigarette smoking behaviors, levels of dual use with conventional cigarettes, and e-cigarette toxicity.

Objective To evaluate potential health effects of various scenarios of increasing promotion and use of e-cigarettes.

Design, Setting, and Participants A base case model was developed using data on actual cigarette and e-cigarette use patterns that quantifies transitions from an initial state of no cigarette or e-cigarette use to 1 of 5 final states: never use of cigarettes or e-cigarettes, cigarette use, e-cigarette use, dual use of cigarettes and e-cigarettes, or quit. Seven scenarios were created that cover a range of use patterns, depending on how the e-cigarette market might develop, as well as a range of possible long-term health effects of e-cigarette use. Scenarios for changes from the base case were evaluated using Monte Carlo simulations. Separate sets of base case model parameters were evaluated for the US and UK populations.

Main Outcomes and Measures We assigned unitless health “costs” for each final state on a scale of 0 to 100. Population health “costs” were compared with the base case (status quo) assuming e-cigarette use health “costs” from 1% to 50% as dangerous as conventional cigarette use health costs.

Results Compared with the base case, a harm reduction scenario in which e-cigarette use increases only among smokers who are interested in quitting with more quit attempts and no increased initiation of e-cigarette use among nonsmokers, and another scenario in which e-cigarettes are taken up only by youth who would have smoked conventional cigarettes, had population-level health benefits regardless of e-cigarette health costs in both the United States and United Kingdom. **Conversely, scenarios in which e-cigarette promotion leads to renormalization of cigarette smoking or e-cigarettes are used primarily by youth who never would have smoked showed net health harms across all e-cigarette health costs.** In other scenarios, the net health effect varied on the basis of the health cost of e-cigarettes.

Conclusions and Relevance According to this analysis, **widespread promotion of e-cigarettes may have a wide range of population-level health effects**, depending on both e-cigarette health risks and patterns of use. Absent the primary effect of e-cigarette promotion being only to divert current or future conventional cigarette smokers to e-cigarette use, the current uncertainty about the health risks of e-cigarettes, increasing e-cigarette use among youth, and the varying health effects at different e-cigarette health costs **suggest a potential for harm.**

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Electronic Cigarettes—A Narrative Review for Clinicians.

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Abstract

Electronic cigarettes (e-cigarettes) were introduced into the US market in 2007 and have quickly become a popular source of nicotine for many patients. They are designed to simulate smoking by heating a nicotine-containing solution producing an aerosol that the user inhales. The short- and long-term effects of e-cigarette use are still unclear, but their use is increasing. Some acute effects of e-cigarettes on heart rate, blood pressure, and airway resistance are reported. Although there are some reports of improved cessation in a subset of users, there are also studies reporting decreased cessation in dual users of regular and e-cigarettes. Additionally, there is **no current regulation** of these devices, and this allows virtually anyone with a form of online payment to obtain them.

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KEYWORDS:

Electronic cigarettes; Nicotine; Toxicity; Use patterns
