

# Evidence and E-cigarettes – The English Perspective

An Expert Interview with Martin McKee

London School of Hygiene and Tropical Medicine, London, UK



**Martin McKee**

Martin McKee is Professor of European Public Health and Medical Director at the London School of Hygiene and Tropical Medicine. He is also Research Director of the European Observatory on Health Systems and Policies and Past President of the European Public Health Association.

## Keywords

Electronic cigarettes, evidence, England

**Disclosure:** Martin McKee has nothing to declare in relation to this article.

**Review Process:** This is an expert interview and as such has not undergone the journal's standard peer review process.

**Compliance with Ethics:** This article is an expert interview and does not report on new clinical data, or any studies with human or animal subjects performed by any of the authors.

**Authorship:** The named author meets the International Committee of Medical Journal Editors (ICMJE) criteria for authorship of this manuscript, takes responsibility for the integrity of the work as a whole, and has given final approval for the version to be published.

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**Received:** 6 January 2020

**Published Online:** 17 January 2020

**Citation:** *European Respiratory & Pulmonary Diseases*. 2019;5(1):10–11

**Corresponding Author:** Martin McKee, London School of Hygiene and Tropical Medicine, Keppel St, Bloomsbury, London WC1E 7HT London, UK. E: Martin.McKee@shtm.ac.uk

**Support:** No funding was received for the publication of this article.

Recently, there has been much media coverage on the topic of e-cigarettes. Approaches to new data suggesting that e-cigarettes may be harmful have differed between countries. In particular, the attitude of public health bodies in England has differed significantly from those in other countries internationally. American electronic cigarette company Juul has been accused of deliberately targeting younger people in its advertising, to encourage them to take up vaping. This, it is argued, has led a new younger generation to become nicotine-dependent. Definitive clinical trials will help determine whether the potential benefits of e-cigarettes, in terms of their application as smoking cessation aids, will outweigh the potential risks to public health in the long term.

## Q. How does Public Health England's report on e-cigarettes differ from that of the US National Academies of Science, Engineering, and Medicine?

The differences between the two reports have been summarised in a paper by Amy Fairchild and colleagues.<sup>1</sup> This sets out in detail the fundamental differences in approach to the issue, as well as listing the differences in the specific conclusions. In brief, Public Health England (PHE) has focused on protecting existing smokers and has consistently downplayed the risks that e-cigarettes might recruit non-smokers, particularly children, to nicotine addiction and, subsequently, smoking.<sup>2</sup> In contrast, the US National Academies of Science, Engineering, and Medicine (NASEM) report, consistent with the wider international consensus, has taken a population-based approach; looking at the overall impact on tobacco-related disease.<sup>3</sup>

## Q. What are the opinions of these two bodies on randomised controlled study evidence to date?

The NASEM report has placed a high priority on evidence from randomised controlled trials, which are recognised internationally as the gold standard.<sup>3</sup> PHE argues that such trials do not capture the effects of e-cigarette use outside the specific conditions of a trial.<sup>2</sup> However, subsequently, those involved in the PHE report have promoted the findings of one of the very few trials that has been conducted, which found that e-cigarettes, when administered in a highly controlled setting, in which subjects were also receiving an intensive behavioural intervention, achieved a higher quitting rate than was seen with nicotine patches.<sup>2</sup> That trial itself had many limitations, including not comparing e-cigarettes with the most effective pharmaceutical interventions and, obviously, saying nothing about the use of e-cigarettes when used outside a structured behavioural programme. Thus, there does seem to be a degree of inconsistency here.

### Q. Where do other countries stand on e-cigarettes and why is England so much at odds with the rest of the world?

Many people have sought to understand why it is that England take such a different view from almost everywhere else in the world. In a paper I published recently in the *American Journal of Public Health*,<sup>4</sup> I concluded that this was because a small community of researchers and advocates in England had come out very strongly in support of e-cigarettes at a time when others were quite sceptical. They promoted heavily the claim that these products were 95% safer than conventional cigarettes despite a lack of empirical evidence to support it. This claim has now been disseminated widely, even though there is now much evidence accumulating to challenge it. However, when one is identified so strongly with a statement, over a long period of time, it is very difficult to go back on it.<sup>5</sup>

### Q. How has Juul contributed to the use and health impact of e-cigarettes?

Juul e-cigarettes have only been available in the United Kingdom for a relatively short time. However, almost by design, in terms of their

unobtrusiveness and flavours, they have proven extremely attractive to young people. This has led to concerns about a new generation growing up nicotine dependent.

### Q. What further studies are needed to ensure consistencies of recommendations worldwide?

First, we urgently need clinical trials to determine once and for all whether these products actually are effective as a cessation devices, comparing them with the best alternatives, in particular varenicline or combination nicotine replacement therapy (NRT) (patches + short-acting NRT). Second, it is essential that all flavours being used are tested for safety when vaporised and inhaled. Currently, they have (mostly) been shown to be safe as food additives when eaten, but this is entirely different. Third, we need further follow-up studies to track the transitions between smoking, e-cigarette use, and abstinence (and combinations thereof) over time. Fourth, drawing on the very successful research on tactics used by tobacco companies (most of which also produce e-cigarettes) we need detailed research, drawing on cognitive psychology, corporate research etc. to understand how they are operating. □

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