



## **Statement from Fresh and the Making Smoking History in the North East Partnership on electronic cigarettes, also known as nicotine vaporisers**

### **Tobacco vs nicotine - re-evaluating the harms**

One in two long term tobacco smokers who don't quit will die from a smoking related disease with an average of 10 years of life lost, and with half of those deaths during middle age<sup>i</sup>. Recent research from Australia suggests for heavier smokers who started as children, this figure may be more like 2 in 3<sup>ii</sup>. This presents an appalling and unacceptable loss of life in the North East and in England, where around 80,000 people a year die from smoking. Most smokers who die from tobacco, or who lose years of quality life and mobility as a result, will have probably tried to quit smoking several times.

In 1976 Prof Michael Russell wrote that 'smokers smoke for the nicotine but die from the tar'<sup>iii</sup>. When we urge people to stop smoking, we explicitly mean to quit smoking tobacco.

It is a worry that concern among smokers over the perceived dangers of electronic cigarettes and vapourisers appears to be rising compared to the much more harmful product which is tobacco. A significant number of people hold incorrect beliefs about the harm from electronic cigarettes and nicotine - believing that part or most of the health risks from smoking are from nicotine.

This statement aims to encapsulate some of the key *current* evidence to both members of the public and to colleagues working in public health and the NHS that electronic cigarettes are a safer option, and may help many smokers to quit tobacco.

### **Safer for users and those around them**

Although not completely without risk, experts estimate that electronic cigarettes carry 95% less risk than smoking<sup>iv</sup>. In the view of Public Health England it is never better for a smoker or those around them to smoke rather than vape.

- Although toxins have been identified in a number of studies into electronic cigarettes and vapourisers, these have been at much lower levels than in tobacco and below levels which would usually cause significant concern<sup>v</sup>.
- Nicotine is an addictive drug which stimulates the nervous system, increasing the heart rate and blood pressure<sup>vi</sup>. However, most of the harm from smoking comes from inhaling tobacco smoke rather than the nicotine.
- There is some evidence to suggest using electronic cigarettes and vapourisers rather than smoking tobacco improves lung function and respiratory symptoms.<sup>vii</sup>

Second-hand tobacco smoke contains over 5000 chemicals, and Cancer Research UK estimates it kills 12,000 people in the UK every year from lung cancer, heart disease, stroke and Chronic Obstructive Pulmonary Disease (COPD)<sup>viii</sup>. By contrast there is no current evidence that electronic cigarettes and vapourisers pose any significant risk of secondhand harm to bystanders and the level of nicotine is

around a tenth of that generated by tobacco cigarettes<sup>ix</sup>. A recent report for PHE recognised that the health risks of passive exposure to electronic cigarette vapour “are likely to be extremely low”<sup>x</sup>.

On the current evidence, Fresh does not currently support any calls for electronic cigarettes and vapourisers to be included within current smokefree legislation, though we recognise there may be circumstances in which use is not encouraged. ASH has a useful ‘five questions’ document to help with the development of workplace policies depending on the objectives [http://www.ash.org.uk/files/documents/ASH\\_933.pdf](http://www.ash.org.uk/files/documents/ASH_933.pdf).

### **Popularity and effectiveness**

Electronic cigarettes and vapourisers are now the most popular means to stop smoking and are used by more people than other forms of NRT<sup>xi</sup>. Many users who have previously found quitting hard are passionate about products that they have found to be effective in stopping smoking tobacco.

An estimated 8% of adults in the North East have tried electronic cigarettes and / or vapourisers and around 6% have tried and still use them<sup>xii</sup>. Most people who have tried them in the NE have done so to try to stop smoking completely, to reduce their tobacco consumption but not quit completely, or to protect others from secondhand tobacco smoke intake. In terms of effectiveness:

- A Cochrane Review found electronic cigarettes and vapourisers could help smokers stop or reduce their tobacco consumption, with no evidence of serious adverse effects.<sup>xiii</sup>
- A ‘real world’ study has shown electronic cigarettes and vapourisers to be more effective in helping smokers than NRT bought over the counter or using no aid<sup>xiv</sup>.
- There is also some evidence to suggest electronic cigarette use leads to abstinence among some smokers who had not intended to quit tobacco<sup>xv</sup>.

### **Stop Smoking Services**

Evidence suggests the most effective way for an individual to successfully quit smoking is to use behavioural support through a specialist stop smoking service, in combination with a stop smoking product. This is up to four times more effective than going it alone. Although the NHS cannot prescribe products not licenced as quitting aids by the MHRA (Medicines and Healthcare Products Regulatory Agency), the Department of Health has stated any smoker choosing to use an electronic cigarette and/ or vapourisers in a quit attempt should still receive behavioural support from Stop Smoking Services, as this will improve their chances of quitting successfully<sup>xvi</sup>. It is unlikely these products are significantly less effective in helping smokers to quit - in Stop Smoking Service monitoring data, Stop Smoking Service users who quit using unlicensed nicotine along with behavioural support achieve some of the highest success rates.

The latest 2014 Stop Smoking Services – Service and Monitoring Guidance states: *“To date there remains limited evidence about the use of nicotine vapourisers for smoking cessation. However, expert opinion cited in the MHRA announcement and the NICE tobacco harm reduction guidance makes it clear that the use of nicotine vapourisers is likely to be considerably less hazardous than tobacco smoking. On this basis, services should, as part of the commissioning arrangement, still be able to provide behavioural support to clients who wish to use unlicensed, self purchased products, whether this use is in combination with or instead of a licensed product”*.<sup>xvii</sup>

Despite electronic cigarettes being the most popular product amongst smokers trying to quit in England<sup>xi</sup>, with approximately 30% of those using a product to help them quit opting for electronic cigarettes, this is not reflected in the number of people using Stop Smoking Services. In the first half

of 2014/15, only 2% of all quit attempts supported by SSS staff involved the use of electronic cigarettes or unlicensed nicotine containing products<sup>xviii</sup>.

Stop Smoking Services could therefore make it explicit that smokers will be offered support with their quit attempt if they are using electronic cigarettes or vapourisers. If at some point a product is licensed as a medicine, localities will have to consider how they can be incorporated into current prescribing guidelines in order to fully harness the popularity of such products within the Stop Smoking Service.

### **Harm Reduction**

Even smokers who want to quit can find it hard to break the addiction and stay quit, resulting in tobacco being our biggest avoidable killer. NICE says that while the best way to reduce illness and death is stopping smoking in one step, there are other ways of reducing the harm of smoking including ongoing use of nicotine, especially for more heavily addicted smokers<sup>xix</sup>. Although NICE recognises that electronic cigarettes and other unlicensed nicotine containing products are currently unregulated by the MHRA, NICE does state that they are expected to be less harmful than tobacco.

We back a harm reduction approach which is also supported in the National Tobacco Control Plan for England. We believe this approach could reduce death on a huge scale and bring long term health benefits from people swapping en masse to a less harmful form of nicotine, even if this means long term use, especially among smokers who have smoked since childhood and are more addicted.

It is preferable not to inhale products containing nicotine or small levels of chemicals at all – especially so for non-smokers and children. However, the aim of public health should be about saving lives and reducing the harm caused by tobacco. We believe it is important the potential benefits of these products should be maximised for the wellbeing of smokers, while minimising any risks to users, and ensuring they do not become a gateway product to tobacco for children and non-smokers.

The Partnership is uniting partners around a long term vision of reducing smoking tobacco down to 5% in the North East. We strongly believe more widespread adoption and promotion of harm reduction approaches could result in significant health gain across North East communities. This could be particularly effective in reducing the health burden amongst groups such as people with a mental health problem, who have higher smoking rates and a much lower life expectancy, smokers who are more addicted, and people with long term conditions such as chronic obstructive pulmonary disease.

Caution also needs to be taken about some media reporting of studies involving electronic cigarettes:

- An example of one headline from coverage of the PLOS One Study by Johns Hopkins University, US, stated: “E-cigarettes contain some toxic chemicals and are not a safe alternative to smoking tobacco, US research suggests”. However, further down the news report stated: “The study also discovered the presence of “free radicals” in e-cigarette vapour, although at 1% of the level found in real cigarettes.”<sup>xx</sup>
- An article that appeared in a national newspaper stated Japanese research had found that e-cigarettes contain 10 times more carcinogens than tobacco cigarettes. While the study did claim to have found such high levels of one carcinogen (formaldehyde) in the vapour from one brand of

electronic cigarette, the newspaper later issued a correction that “*In fact, the Japanese study supports existing evidence that e-cigarettes are much less dangerous than tobacco products.*”<sup>xxi</sup>

- A story about formaldehyde and e-cigarettes emerged in the New England Journal of Medicine: (Jensen et al Hidden Formaldehyde in E-cigarette Aerosols). However, a former director of Action on Smoking and Health claims that the test involved operating the vaping device at such a high temperature that no user would ever use it this way since the vapour would be too acrid.<sup>xxii</sup>

### **Monitoring any long term potential risks**

Concerns have been expressed around the promotion of electronic cigarettes and vapourisers to children and the risk they could act as a gateway product to children to start smoking. However, to date, the number of children and young people regularly using electronic cigarettes remains very low<sup>xxiii</sup> and their use is overwhelmingly amongst those who are current or ex-smokers. There is currently no evidence that electronic cigarettes and vapourisers are introducing a new cohort of young people to nicotine addiction.

Concerns have been expressed about electronic cigarette advertising promoting these products as fashion accessories for the young and we would hope the Committee of Advertising Practice rules on electronic cigarettes will ensure advertising does not make these products enticing to children. There are also unanswered questions whether the involvement of the tobacco industry in the electronic cigarette market will be used as an opportunity to promote pro-smoking messages, or promote dual use to smokers rather than quitting tobacco. There has been recent criticism in the US that some tobacco-owned electronic cigarette brands contain longer warnings than their more harmful tobacco products<sup>xxiv</sup>.

We need to be able to monitor the long term safety of these fast emerging products, and be responsive to the emerging evidence. The European Tobacco Products Directive will be implemented from 2016, bringing restrictions on tobacco as well as further clarity on the labelling of electronic cigarettes including ingredients and toxicity, ensuring quality and safety is the responsibility of manufacturers and importers, and prohibiting cross border advertising. Our hope is that where regulation is applied, it will mean users can benefit from increased clarity and consistency for products which match their own requirements. In some cases, that will involve electronic cigarette/vaporiser products which meet MHRA standards as medicinal aids to stop smoking, which can then be recommended by health professionals and prescribed.

This is a rapidly evolving area of tobacco control and Fresh is committed to monitoring emerging evidence and research and will update this position statement as appropriate.

### **References**

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<sup>iii</sup> Prof Michael Russell, *British Medical Journal*, 1976

<sup>iv</sup> [Estimating the Harms of Nicotine-Containing Products Using the MCDA Approach](#), Nutt et al, 2014

<sup>v</sup> Siegel M. Metals in ECVapor are Below USP Standards for Metals in Inhalation Medications. 2013 / Burstyn I. Peering through the mist: systematic review of what the chemistry of contaminants in electronic

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<sup>vii</sup> Prof Riccardo Polosa, Director, Institute of Internal Medicine and Clinical Immunology University of Catania, “Clinical trials of E-cigarettes: potential for harm reversal and risk reduction” – the E-Cigarette Summit, London, November 2015. <http://www.e-cigarette-summit.com/>

<sup>viii</sup> <http://www.cancerresearchuk.org/cancer-info/healthyliving/smoking-and-cancer/passive-smoking/smoking-and-cancer-secondhand-smoke>

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<sup>xi</sup> West, R. Electronic cigarettes in England: latest trends. Smoking Toolkit Study. 8 April 2014

<sup>xii</sup> Smokefree GB 2014 survey

<sup>xiii</sup> <http://www.bbc.co.uk/news/health-30499020>

<sup>xiv</sup> Brown J, Beard E, Kotz D, Michie S & West R. Real-world effectiveness of e-cigarettes when used to aid smoking cessation: a cross-sectional population study. Published online 20 May 2014

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<sup>xvi</sup> [http://www.ncsct.co.uk/usr/pub/LSSS\\_service\\_delivery\\_guidance.pdf](http://www.ncsct.co.uk/usr/pub/LSSS_service_delivery_guidance.pdf)

<sup>xvii</sup> [http://www.ncsct.co.uk/usr/pub/LSSS\\_service\\_delivery\\_guidance.pdf](http://www.ncsct.co.uk/usr/pub/LSSS_service_delivery_guidance.pdf)

<sup>xviii</sup> <http://www.hscic.gov.uk/searchcatalogue?productid=16834&returnid=3945>

<sup>xix</sup> PH45, Tobacco: harm-reduction approaches to smoking, National Institute for Clinical Excellence <https://www.nice.org.uk/guidance/ph45>

<sup>xx</sup> E-cigarettes 'may harm the lungs and immune system' <http://www.bbc.co.uk/news/health-31146418>

<sup>xxi</sup> Daily Mail – corrections and clarifications 23.1.2015 <http://www.dailymail.co.uk/home/article-2922642/Clarifications-corrections.html>

<sup>xxii</sup> <http://www.clivebates.com/?p=2706>

<sup>xxiii</sup> ASH. Use of electronic cigarettes in Great Britain. April 2014

<sup>xxiv</sup> <http://www.reuters.com/article/2015/03/23/us-ecigarettes-regulations-specialreport-idUSKBN0MJ0GN20150323>