HERTFORDSHIRE COUNTY COUNCIL

PUBLIC HEALTH, LOCALISM AND LIBRARIES CABINET PANEL

THURSDAY, 24 NOVEMBER 2016 AT 10.00 AM

Agenda Item No.

TOBACCO HARM REDUCTION: A POLICY STATEMENT ON ELECTRONIC CIGARETTES

Report of the Director of Public Health

Authors:- Liz Fisher, Head of Provider Services, Tobacco Control Lead

(Tel: 01442 453633);

Piers Simey, Public Health Consultant in Adult Health

Improvement (Tel: 01442 453633);

Jim McManus, Director of Public Health (Tel: 01438 845389).

Executive Member:-Teresa Heritage, Public Health, Localism and Libraries

1. Purpose of report

- 1.1 The purpose of this Report is to ask the Panel to consider and comment upon a draft Policy Statement on the use of electronic cigarettes (ecigarettes) to reduce the harm from tobacco in Hertfordshire.
- 1.2 This approach was outlined in Hertfordshire's Tobacco Harm Reduction Guidance which was approved by Panel in February 2015 and it was agreed this would be brought forward for consideration.
- 1.3 The draft policy statement comes in light of
 - i. the County Council's statutory responsibilities for Public Health,
 - ii. the County Council's approval of a policy position on smoking and tobacco in November 2014 and
- iii. the Public Health and Localism Cabinet Panel's approval of tobacco harm reduction guidance in February 2015.

2. Summary

2.1 It is proposed that Hertfordshire County Council promotes responsibly the use of e-cigarettes to help smokers to quit or reduce smoking, whilst acknowledging that e-cigarettes are not entirely without risk, and monitors ongoing impact and evidence. This line is entirely consistent with national guidance and was included within Hertfordshire's Tobacco Harm Reduction Guidance which was approved by Panel in February 2015.

3. Recommendations

The Public Health, Localism and Libraries Cabinet Panel is asked to:

- i. consider and comment upon the draft e-cigarette policy statement
- ii. note the attached Equality Impact Assessment
- iii. recommend to cabinet that cabinet agrees the draft e-cigarette policy statement

4. Background

- 4.1 Tobacco use remains the single most important cause of death and disability in Hertfordshire, with approximately 140,000 adult smokers in Hertfordshire in 2015, killing 1,500 people in Hertfordshire every year.
- 4.2 Although two thirds of smokers express the desire to cease smoking, not all smokers are ready or able to do so. E-cigarettes have the potential to reduce smoking prevalence in Hertfordshire in our more disadvantaged communities who hitherto have not benefited from the overall reduction in smoking prevalence.
- 4.3 For example, smoking prevalence in Hertfordshire's routine and manual groups is 31.3% (compared with 26.4% of smokers in routine and manual groups for England as a whole) and smoking prevalence in people with mental conditions remains significantly higher, with rates as high as 60% in people with more severe conditions.
- 4.4 <u>Hertfordshire's Tobacco Harm Reduction Guidance 2015</u> recognises the benefits of using nicotine (including nicotine in e-cigarettes) as a means of reducing tobacco use, and has the potential to promote quitting in smokers who would otherwise not be able to do so.
- 4.5 This policy statement is written primarily for policy makers who need to consider whether or not to permit the use of electronic cigarettes in workplaces, enclosed public places and external public areas. The potential approaches for different organisations and environments are described in Appendix 3 of the policy statement. This policy statement has been developed in consultation with members of a national e-cigarette policy group (which includes representation from the Association of Directors of Public Health Action on Smoking and Health, Public Health England the Chartered Institute of Environmental Health and stop smoking services), Hertfordshire Public Health Board and Hertfordshire Tobacco Control Alliance.
- 4.6 The draft policy statement can be found on pages 7-10 in Appendix 1.
- 4.7 There is now a wealth of evidence published on electronic cigarette use. Public Health England (PHE) published an independent evidence review in August 2015: E-cigarettes: An evidence update. A report commissioned by Public Health England. This report concluded that electronic cigarettes (e-

cigarettes) are significantly less harmful than tobacco. A subsequent report was published by the Royal College of Physicians in April 2016: Nicotine without smoke: tobacco harm reduction which confirmed the findings of the

4.8 Key messages from these reports are:

PHE report.

- a. Nicotine itself is relatively harmless compared to tobacco use. There is a wide range of licensed and hitherto unlicensed/unregulated nicotine containing products available to smokers, to help them to reduce their smoking or to quit altogether.
- b. E-cigarettes carry only a fraction of the risk of smoking cigarettes and whilst not risk-free, they are estimated to carry only 5% of the risk of smoking tobacco.
- c. Nearly half the population (45%) do not realise that e-cigarettes are much less harmful than smoking: around one in five (22%) believe erroneously that e-cigarettes are equally or more harmful than smoking.
- d. Approximately 2.8 million people in Great Britain are using them, almost entirely comprising current smokers, smokers wanting to quit, and exsmokers. Very few "never smokers" use e-cigarettes.
- e. There is as yet, despite numerous studies, no credible reported evidence that e-cigarettes are acting as a route into smoking for children or young people.
- f. There are no increased toxins in the ambient air from people who use ecigarettes. Vapers (users of electronic cigarettes) are therefore not subjecting people around them to the harm of tobacco smoke.
- g. Quitting smoking in a single step with behavioural support and pharmacological treatment (nicotine replacement therapy or varenicline) or e-cigarettes remains the recommended gold standard approach for all smokers, as this has the best evidence of success. But the emerging evidence suggests that some of the highest quit rates are seen amongst smokers who use e-cigarettes as well as receive behavioural support from local stop smoking services. This presents a significant opportunity for peoples' health improvement and reduction of disease risk.
- h. Special consideration is required for pregnant smokers because of the impact of smoking on the developing foetus, and the evidence of nicotine in the first trimester of pregnancy. Pregnant smokers are advised to only use licensed Nicotine Replacement Therapy (NRT) if they are unable to quit smoking without it. However, they should not be discouraged from using e-cigarettes if the alternative is to smoke, since this will be much less harmful.
- Vaping (using an e-cigarette) is <u>not</u> smoking. E-cigarettes do not contain tobacco and it is not illegal to use them in enclosed public places as per the Health Act 2006 which prohibits smoking in enclosed public places, including vehicles.
- From May 2016, all electronic cigarettes must be licensed or regulated by the Medicines and Healthcare Products Regulation Authority (MHRA).

k. There is currently one e-cigarette licensed for prescription with the MHRA which is not yet commercially available. When this and other licensed e-cigarettes become available for prescription purposes, they will be assessed in partnership with Hertfordshire Medicines Management Committee for their effectiveness and cost-effectiveness before adding to Hertfordshire's formulary of products available to support smokers wanting to quit smoking.

5 Existing County Council Policy

- 5.1 The Council approved a <u>position statement</u> on smoking and tobacco in November 2013, committing to reducing the harm from tobacco in Hertfordshire.
- 5.2 The Public Health and Localism Panel approved <u>Tobacco Harm Reduction</u> <u>Guidance</u> in February 2015, which outlined the use of nicotine, including the use of e-cigarettes, in our approach to reducing the harm from smoking.

6 Equality Impact Assessment

- 6.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the Equality implications of the decision that they are making.
- 6.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.
- 6.3 The Equality Act 2010 requires the County Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 6.4 Electronic cigarettes are used by all socio-economic groups, but disproportionality by higher socio-economic groups. Increasing their use generally and in more disadvantaged groups will have a positive impact on health inequalities and benefit those who are unable or unwilling to quit smoking using other methods. Heavier and more addicted smokers, including smokers with mental health problems and long-term conditions, will benefit from this policy statement.

6.5 A full EQIA has been undertaken and completed and is included as Appendix 4 of this report.

7 Financial Implications

- 7.1 The current plans will be achieved within existing budgets. There are no additional financial implications beyond existing public health commitment to tobacco control and smoking cessation activity
- 7.2 There are no plans to fund e-cigarettes or Nicotine Replacement Therapy (NRT) for ongoing tobacco harm reduction. The potential is being explored to partly fund electronic cigarette starter packs to promote quitting.
- 7.3 The promotion of self-funded e-cigarette use has potential to reduce the expenditure on prescribed NRT and other stop smoking medicines and could lead to greater quit rates among those accessing stop smoking services.
- 7.4 Electronic cigarettes are a cheaper alternative to smoking and have the potential to reduce child poverty in parents not ready to guit smoking
- 7.5 Every year in Hertfordshire tobacco use costs the local economy £288 million and the NHS £34 million and doubles the risk of needing care; costing adult social care £18.5 million every year. Reducing smoking prevalence and helping smokers to quit has short, medium and long term health and financial benefits to the individual, communities and contribute to Sustainability & Transformation Plans for the NHS. The economic and health costs of smoking are so great, that even modest reductions produce substantial gains.

Appendix 1

Hertfordshire County Council

Tobacco harm reduction: A policy statement on the use of electroniccigarettes (e-cigarettes) (DRAFT)

Authors: Liz Fisher, Head of Provider Services, Tobacco Control Lead; Piers Simey, Consultant in Public Health; Jim McManus, Director of Public Health, Hertfordshire County Council.

Background

Hertfordshire County Council approved a policy position on smoking and tobacco control in November 2013ⁱ. In this statement the County Council recognised the harm done by tobacco, an extremely harmful product and the only consumer product with no safe level of use. Smoking tobacco was then, and remains, the leading cause of premature death and disease in Hertfordshire, and despite our success in reducing the number of smokers each year, around 140,000 adults continue to smoke in Hertfordshire, with new smokers, especially young people, starting smoking every day. An estimated 15.5% of adults in Hertfordshire smoke compared with 16.9% of the population of Englandⁱⁱ.

In 2015 Hertfordshire was the overall winner of the local government awards for tobacco control. The County Council is, and remains, committed to reducing the harm caused by tobacco, the cost to human health, the continuing early deaths and the avoidable cost to public services.

Since the creation of this policy statement the National Institute for Health and Care Excellence (NICE) has issued guidance for local authorities on harm reduction approaches to tobaccoⁱⁱⁱ. Where people are unable or unwilling to give up tobacco they can be supported to reduce the harm from smoking until they are ready to quit smoking entirely. Harm reduction approaches have the potential to reduce death and disease from tobacco in those who find it most difficult to give up smoking and nicotine.

Additionally, electronic devices which deliver nicotine without the significant harms of tobacco smoking, commonly called "e-cigarettes" have arrived on the market. E-cigarettes are both improving in their effectiveness in delivering nicotine without harmful tobacco smoke, and are in the process of becoming regulated and/or licensed by the Medicines and Health Care Products Regulatory Authority (MHRA).

This statement has been informed by best scientific evidence on the health benefits of harm reduction approaches to tobacco and the benefits of e-cigarettes, as well as practice in other local authorities, and the County Council's own developing clinical and public health practice. The County Council considers that the time is right to augment its commitment to tobacco control by welcoming the health benefits of harm reduction approaches including e-cigarettes.

The County Council's Policy Position on electronic-cigarettes (e-cigarettes)

Informed by scientific evidence, and as part of our commitment to meet our statutory duties to improve and protect the health of the population, Hertfordshire County Council adopts the following policy principles in considering the use of electronic cigarettes:

- We recognise that smoking remains the leading cause of early deaths in Hertfordshire and is a significant cause of inequalities in health outcomes.
- 2. We commit to reducing the avoidable costs of smoking to individuals, communities, our health and social care services and the public purse. This includes our commitment to continue the denormalisation of smoking through existing policies and strategies.
- 3. We recognise that many individuals who continue to smoke tobacco do so because of addiction to nicotine, and not by choice. Whilst we believe that the best thing to do to protect good health is not to smoke tobacco, nicotine itself is relatively harmless for most people¹. If people wish to continue using nicotine without the significant adverse health consequences of smoking tobacco, it is significantly safer and highly preferable to use electronic cigarettes (known as vaping) rather than smoke tobacco. This will significantly reduce the harm from smoking tobacco by as much as 95%, based on Public Health England estimates.
- 4. We are clear that there is good evidence that harm reduction approaches and electronic cigarettes can bring significant benefits for people who wish to quit tobacco, including pregnant smokers and people with mental health conditions, with the very small identified risks significantly outweighed by the benefits. We will regularly review this evidence as it develops to ensure that our policy position is consistent with our duties and obligations.

¹ For situations where nicotine may be harmful, such as in foetal development during the first trimester, these are considered within the County Council's clinical guidelines as appropriate.

- 5. We will adopt a harm reduction approach to tobacco and will promote our clinical guidance for tobacco harm reduction widely, including supporting the use of electronic cigarettes.
- 6. We acknowledge the very small risks associated with electronic cigarettes. We will seek to ensure that our partners, key stakeholders, health care professionals, vapers and the public are aware of these risks, whilst emphasising that a) the benefits overwhelmingly outweigh the risks, b) advances in technology are reducing those risks and c) electronic cigarettes are and remain significantly safer than tobacco smoking.
- 7. We will abide by our legal and policy obligations on decision making in order to take forward demand reduction strategies and such other identified action in relation to the policy and Public Health decisions so that the World Health Organization Framework Convention on Tobacco Control is upheld.
- 8. In accordance with developing best practice guidance, we will ensure that stop smoking services in Hertfordshire encourage, welcome and support smokers who want to use electronic cigarettes to quit smoking and/or reduce harm from tobacco.
- We will assess licensed products fairly for prescription and formulary inclusion and contribute to prescribing guidance on electronic cigarettes for products that are licensed and available on prescription.
- 10. We will work with the local vaping community and local suppliers of electronic cigarettes to ensure that easily accessible referral pathways into stop smoking services are in place.

- 11. We will monitor the trends in electronic cigarette use and will work to ensure that use in young people remains confined to those already smoking, quitting or recently quit.
- 12. We will review and update our position on electronic cigarettes as evidence continues to emerge. Our current understanding is outlined in Appendix 2.
- 13. We will encourage the development of local workplace policies for the County Council, drawing on regional and national networks to share and promote good practice in relation to electronic cigarettes.
- 14. We will contribute to the development of local workplace policies for others, drawing on regional and national networks to share and promote good practice in relation to electronic cigarettes.
- 15. Within the constraints of law, operational deliverability and acceptability to staff, users and visitors, we will be guided by the principles below established by Public Health England in our policy decisions on electronic cigarette use in workplaces and premises owned and operated by the County Council.
 - a) We will make clear the distinction between vaping and smoking
 - b) We will ensure policies are informed by the evidence on health risks to bystanders
 - c) We will identify and manage risks of uptake by children and young people
 - d) We will support smokers to stop smoking and stay smoke free
 - e) We will support compliance with smoke free law and policies
- 16. We will, in addition to the principles listed above, consult our workforce in relation to any workplace policies that may affect them.

- 17. We outline in Appendix 3 how these principles might be applied in a range of circumstances.
- 18. We will support employers, organisations who manage public spaces, and others in arriving at sensible policies which distinguish between electronic cigarettes and smoking, and which work for their circumstances

A full Equalities Impact Assessment has been carried out for this Policy and can be found in Appendix 4

Appendix 2: Supporting evidence and guidance to the Policy Statement

This evidence and guidance statement is written for the guidance of the County Council and for other policy makers in Hertfordshire who need to consider whether or not to permit the use of electronic cigarettes (e-cigarettes) in workplaces, enclosed public places and external public areas.

This statement has been developed in consultation with

- members of a national electronic cigarette and tobacco harm reduction learning group
 - (which includes representation from the Association of Directors of Public Health Action on Smoking and Health, Public Health England the Chartered Institute of Environmental Health and stop smoking services),
- Hertfordshire's Public Health Board,
- Hertfordshire's Tobacco Control Alliance and Hertfordshire's Tobacco Control Management Board.
- The views of electronic cigarette users expressed in national seminars
- The views of our staff in relation to whether and where to allow vaping, conducted in a staff survey.

1. The Harm from Tobacco in Hertfordshire

- 1.1 Tobacco is harmful and addictive. Tobacco remains the single most important cause of health inequalities, causing more than one in four of all cancers, one in four circulatory disease deaths (including heart attacks and strokes), and more than one in three respiratory deaths. An adult smoker can expect to lose 3 months of life for every year they smoke after the age of 35^{iv}. Smoking is a leading factor in hospital admissions and it costs the Hertfordshire economy £288 million every year, including £36 million for the NHS and £18 million for social care^v.
- 1.2 Approximately one in six adults (15.5%) currently smokes in Hertfordshire. However, this is concentrated in more deprived communities, with an estimated one in three (33.1%) routine and manual workers smoking, and around 70% of adults with severe mental health conditions still smoking^{vi,vii}.
- 1.3 Although smoking prevalence has halved since the 1970s, it is now falling relatively slowly. Smoking is mainly concentrated in more deprived communities and is a significant cause of family and child poverty^{viii}. This has led to the development of harm reduction approaches to tobacco, and recently saw NICE guidance produced for local authorities on this.
- 1.4 Hertfordshire County Council approved a tobacco policy statement in November 2013, committing to:
 - Reducing smoking prevalence and associated health inequalities
 - Raising the profile of the harm caused by smoking to our communities

- Developing plans with our partners and local communities to address the causes and impacts of tobacco use, and secure the greatest benefit for our communities.
- Supporting people to quit smoking through a Hertfordshire-wide stop smoking service
- Producing a tobacco control strategy focusing on:
 - Prevention of people taking up smoking
 - Control and enforcement
 - Helping people to reduce the harm from smoking
- 1.5 To further reduce smoking prevalence, Hertfordshire County Council approved tobacco harm reduction guidelines in February 2015^{ix}. These guidelines set out that:
 - Not all smokers are able or ready to quit smoking
 - There are safer forms of nicotine, including electronic cigarettes, that can be used to reduce the harm from tobacco
 - Tobacco harm reduction benefits individuals and communities where smoking addiction and prevalence remain high.
- 1.6 These guidelines are consistent with NICE guidance and with recommended best practice from Public Health England and the Royal College of Physicians.

2. Reducing the harm from tobacco

- 2.1 Reducing the harm from tobacco is a relatively new focus compared to drugs harm reduction. Providing safer ways to deliver nicotine enables people to reduce the harm from tobacco without necessarily eliminating the use of nicotine. Tobacco harm reduction recognises that smoking is highly addictive: although two thirds of smokers want to quit smoking, only a few smokers are successful without intensive behavioural support and medication^x.
- 2.2 Nicotine itself is relatively harmless, both when compared to smoking and in absolute terms. Vaping (using an electronic cigarette or similar device) carries a small amount of risk, estimated to be 5% of the risk of smoking tobacco^{xi}.
- 2.3 Cigarettes are the nicotine containing product that causes the most harm in the world today. Smokers should be encouraged to switch to non-combustible forms of nicotine, as harms are much lower^{xii}.

3. Electronic Cigarettes and harm reduction

3.1 Electronic cigarettes have the potential to reduce smoking in more deprived communities, offer smokers an alternative to smoking and pose no discernible risk to those around them^{xiii}. Electronic cigarettes also have the potential to reduce further the number of smoking role models for young people and can de-normalise smoking; therefore policies should make clear the distinction between vaping and smoking^{xiv}.

3.2 Public Health England and the Royal College of Physicians have reviewed all the available evidence. Their conclusions are that there are significant public health benefits from encouraging smokers to use safer forms of nicotine, which include the use of electronic cigarettes, as a means of reducing smoking and triggering quit attempts in smokers. xv,xvi. This policy reflects their findings and their recommendations.

- 3.3 There are around 10 million adult smokers in Great Britain. E-cigarette use is a relatively new phenomenon, with the numbers who vape rising from 700,000 people in 2012, to 2.8 million people in 2016. The overwhelming majority of those vaping are either current smokers (1.4 million) or ex-smokers (1.3 million). Vaping is being used by these citizens to quit smoking entirely, reduce the amount of tobacco smoked, or prevent relapse back into smoking^{xvii}.
- 3.4 E-cigarette use by never smokers remains negligible, but use among long-term ex-smokers has grown and more smokers are using e-cigarettes to cut down or quit smoking than any other nicotine product (such as nicotine patches, gum, lozenges or mouth spray).
- 3.5 Youth surveys show that e-cigarettes use in young people is rare and is confined almost entirely to those who currently or have previously smoked. There is no credible evidence that e-cigarettes are a gateway to tobacco smoking^{xviii}.

4. E cigarettes: legislative and safety issues

- 4.1 E-cigarettes provide nicotine through vapour, rather than smoke. E-cigarette vapour is produced by heating a solution containing water, nicotine propylene glycol, vegetable glycerine, and flavourings. The very low level exposure to carcinogens found in e-cigarette vapour is usually at or below the threshold of detection and no higher than that found in background levels. This represents a significantly different level of carcinogens from that in smoking. These much lower levels are likely to put the individual at considerably lower risk compared to the toxins, carcinogens and carbon monoxide found in tobacco smoke. However, public perception of e-cigarettes, does not match the evidence, with only 15% of the public accurately believing that e-cigarettes are a lot less harmful than smoking^{xix}.
- 4.2 The quality of e-cigarettes has improved greatly. Third generation devices deliver nicotine more effectively, improving as the user becomes more experienced. Regulation and licensing will improve quality standards further still, and are likely to increase professional and public confidence in their use.

Legal issues

4.3 As e-cigarettes contain no tobacco and vaping is not smoking, they are not prohibited in enclosed public spaces (as per the 2006 Health Act which prohibits smoking).

4.4 From 20 May 2016 e-cigarettes must meet the requirements of the European Union Tobacco Product Directive.

• If they contain less than 20mg nicotine, they are required to be regulated by the Medicines and Healthcare Products Agency (MHRA). These regulated products must not be advertised in any form, sold to people under 18 years, or be advertised with any claims about health benefits.

• E-cigarettes containing 20mg or more nicotine must be licensed with the MHRA. Only licensed products can be prescribed as medicines and promoted to help smokers to quit or reduce smoking².

In line with existing County Council policies on the use of licensed medicines, all licensed products are reviewed for cost-effectiveness and effectiveness before any recommendations are made for use or prescription in Hertfordshire.

Improvements in quality and safety

- 4.5 Since e-cigarettes came onto the UK market a decade ago, there have been consumer led improvements in the quality of electronic cigarettes. Third generation devices (tank models) allow the user to adapt the speed of delivery of nicotine. Nicotine levels can then be adapted in the same way as smokers regulate their intake of smoked nicotine, by adjusting the frequency and depth of inhalation.
- 4.6 Overdose of nicotine in regular users is highly unlikely and in any case selflimiting, as e-cigarette users (just like tobacco smokers) carefully adjust their levels of nicotine according to need and to prevent withdrawal symptoms.
- 4.7 Short term adverse effects from using e-cigarettes such as mouth and throat irritation are similar to those found when using licensed nicotine replacement therapy. These adverse effects also tend to resolve over time^{xx}.
- 4.8 Regulation and licensing of e-cigarettes will ensure consistent standards and will hopefully reassure users and the public about their safety. E-cigarettes should be disposed of safely.
- 4.9 Between 2013 and 2016, the perception of harm from e-cigarettes changed. The public and many professionals do not appreciate that e-cigarettes are significantly less harmful than smoking.
- 4.10 Safety concerns around e-cigarettes have often been overstated. The recent Parliamentary Office of Science and Technology³ report on e-cigarettes stated:

² 'E-Voke' is the first e-cigarette product to be licensed (November 2015). 'E-Voke' is manufactured by Nicoventures, a subsidiary of British American Tobacco. It is not yet commercially available, but once available it will be reviewed though standard processes for new medicines for effectiveness and cost effectiveness, before any recommendations are made for its use in Hertfordshire.

16

³ http://researchbriefings.parliament.uk/ResearchBriefing/Summary/POST-PN-0533

Technical safety and quality There have been reports of fires and battery explosions (primarily caused by faulty or incompatible chargers), and poisoning from ingestion of solution. Public Health England's review of national data concluded that these risks are 'comparable to similar electrical goods and potentially poisonous household substances'. Examples of mislabelled solution content have mostly declared higher concentrations of nicotine than were actually present in liquids or cartridges. Tamper-proof packaging and accurate labelling are requirements of the EU Tobacco Products Directive.

- 4.11 Power adaptors for charging electronic cigarettes must, as with other consumer goods, comply with The Electrical (Safety) Equipment Regulations 1994, and The Electromagnetic Compatibility Regulations 2006, and must be CE marked to comply with EU legislation.
- 4.12 As with any rechargeable device, such as laptops and mobile phones, ecigarettes should be charged with the correct charger and should not be left unattended and charging for excessive periods of time including overnight.xxi

Safety of Children and Animals

- 4.13 There have been some limited adverse reports of children and animals ingesting e-cigarette liquids, which have generally been overstated by media or other sources.
- 4.14 To prevent accidental poisoning, and as is the case with any substance which could potentially harm people if ingested, e-cigarettes and liquids should be stored in appropriate containers away from children and animals.
- 4.15 The vapour from e-cigarettes poses no danger to children. Parents and others should be encouraged to switch to electronic cigarettes rather than smoke in the home or around children. It is an offence to sell electronic cigarettes to anyone under the age of 18^{xxii}.

Use of e-cigarette chargers on local authority property

- 4.16 In line with the policy on all other portable devices, rechargeable e-cigarettes which are peoples' personal property should not be charged on Local Authority premises, except in residential premises where policies exist which allow properly tested e-cigarette chargers to be used in specific areas⁴.
 - Staff should be aware of the fire hazard associated with the use and recharging of all rechargeable devices.
 - E-cigarette batteries, along with all rechargeable devices, should also not be recharged in premises or vehicles or used in oxygen rich

-

⁴ Estates and Facilities alert EFA/2014/002 June 2014

environments. Advice should be given to patients using oxygen therapy at home^{xxiii}.

Use in vehicles

4.17 Smoking is already identified in the Highway Code (Rule 148) as a driver distraction to be avoided. Whilst using an e-cigarette whilst driving should also be considered as a driver distraction, they are not prohibited in the same way as smoked tobacco in workplace vehicles or in cars carrying people under the age of 18.

Constituents of e-cigarettes

- 4.18 Electronic cigarette liquid consists of propylene glycol, vegetable glycerine, nicotine and flavours.
- 4.19 In animal studies there have been no long term adverse effects of these constituents over 12-18 months, although propylene glycol (used to generate synthetic smoke in night clubs) has been shown to irritate human airways. Only one case of an adverse effect of inhaled glycerine has been reported to date.
- 4.20 The flavours found in e-cigarettes are considered safe in food use, although some irritate the airways when inhaled. There are also numerous flavourings in tobacco, used to make tobacco more palatable. One particular flavour, Diacetyl, found in tobacco smoke and in some e-cigarettes, has been highlighted as a concern. Diacetyl is a flavour found in popcorn, which is considered safe in food use. However, when heated and inhaled over long periods it can cause irreversible bronchiolitis (popcorn lung)^{xxiv}. The amount of diacetyl found in tobacco smoke is estimated to be 750 times greater than in the highest level found in an electronic cigarette to be 750 times greater than in the highest level found in an electronic cigarette flavours. Further evidence may emerge over time and this needs to be monitored and reviewed.

5. Patterns of e-cigarette use

5.1 As stated above, e-cigarettes are overwhelmingly used by either current smokers or ex-smokers. They have real potential to reduce smoking prevalence and reduce health inequalities in communities where smoking prevalence remains high and more tobacco is smoked by individuals. E-cigarettes are assessed to be 95% safer than smoking and individuals should be encouraged to switch to safer forms of nicotine rather than smoke^{xxvi}.

Long-term use

5.2 As with all new products, the effects of long-term use or rare adverse effects will not be known for several decades. The vapour generated by e-cigarettes has a number of potentially harmful ingredients, but all at much lower levels than smoking, and in many cases below thresholds of detection. These

ingredients are, based on current evidence, well below threshold limits for harm and in any case orders of magnitude lower than tobacco for smoking. The temperature of the vapour is adjusted by the user; over-heating of electronic cigarettes produces higher levels of a few toxins, but also produces an adverse taste (dry puff) which vapers avoid, so is only experienced by new users and is not sustained after initial use. Exposure to low levels of these toxins over many years is unlikely to cause significant harm, especially as this risk is very small in comparison to smoking^{xxvii}.

5.3 It is not clear if the short term irritant effects of e-cigarettes on the airways could lead to longer term damage, but as most e-cigarette users either stop or reduce tobacco use over time, and should be encouraged to do so, there are likely to be subsequent improvements in any respiratory symptoms which are experienced.

Dual use

5.4 People may smoke tobacco and use e-cigarettes and/or Nicotine Replacement Therapy (NRT) at the same time. NRT appears to be well tolerated when used together with smoking, and smokers who also use NRT are more likely to make a quit attempt in the following few months. Smokers who also electronic cigarettes are similarly more likely to try and stop smoking compared to smokers who do not use them.

Use in pregnancy

5.5 Our advice is still, based on evidence available, that pregnant smokers should be encouraged to quit smoking completely and in one step using licensed nicotine containing products if they are unable to quit smoking without themxxviii. However, pregnant smokers who are trying to quit smoking using an electronic cigarette should not be discouraged from doing soxxix.

6. Policy Considerations

- 6.1 Smoking has previously been considered a lifestyle choice, rather than an addiction that kills one in two users when used as the manufacturer intended. The evidence for Nicotine Replacement Therapy to stop or reduce smoking is strong, and NRT has a good safety profile^{xxx}. Novel nicotine devices, such as e-cigarettes, made to a high standard and used as the manufacturers recommend are also likely to have a good safety profile. The suppliers of e-cigarettes include tobacco companies, and the first licensed product was produced by a subsidiary of British American Tobacco.
- 6.2 We will abide by our legal and policy obligations on decision making in order to take forward demand reduction strategies and such other identified action in relation to the policy and Public Health decisions so that the WHO Framework Convention on Tobacco Control is upheld.

Public Health Evidence: Use in public places

Open public places

- 6.3 There is no legislation prohibiting smoking or electronic cigarettes in any outside public place in England. The use of cigarettes and electronic cigarettes are usually prohibited in accordance with safety policies in locations with a significant fire risk, such as car parks and petrol stations.
- 6.4 Local Smokefree policies may prohibit smoking in areas where smoking may act to provide or shape unwanted social norms and role models for children such as in parks, playgrounds and school grounds. Smoking on NHS grounds is generally discouraged, but enforcement remains challenging. Those implementing Smokefree policies in such places should seek to distinguish between vaping and smoking and consider the reduced harm from ecigarettes. They should consider carefully the different issues before they restrict or prohibit e-cigarette use as well as tobacco use.

Enclosed workplaces and public places (buildings)

- 6.5 The 2006 Health Act, which prohibits smoking in virtually all enclosed workplaces and public spaces (as well as public transport and work vehicles), was based on the overwhelming evidence of harm caused by second-hand smoke to workers and other people^{xxxi}.
- 6.6 There is no English legislation prohibiting electronic cigarettes in enclosed public places. Local policies and guidance vary, with no consensus policy statement in place across different organisations and environments. Employers may respond to electronic cigarettes in the same way as they deal with smoking, eating and drinking when on duty.

7. E-cigarettes and stop smoking services

- 7.1 Many different forms of electronic cigarette exist and the market continues to develop. Electronic cigarettes vary in their delivery systems and nicotine concentrations. The technique that vapers use to inhale nicotine is the greatest determinant of nicotine levels reached, and is based on level of addiction and individual need to minimise unpleasant withdrawal symptoms.
- 7.2 Public Health England and the National Centre for Smoking Cessation and Training (NCSCT) recommend that stop smoking services should offer behavioural support to people who want to use electronic cigarettes to stop smoking. **xxii, *xxxiii** Smokers attending stop smoking services who used electronic cigarettes with behavioural support had the highest quit rates in 2014-2015**xxiv.

Guidance for stop smoking services on the use of electronic cigarettes to quit

7.3 E-cigarettes are the most popular aid to quitting smoking^{xxxvi}. Combining e-cigarette use with evidence based behavioural support by stop smoking services has potential to increase quit rates in Hertfordshire. Hertfordshire Stop Smoking Service welcomes electronic cigarette users who want to quit smoking into their services. E-cigarettes also seem, according to emerging evidence, to be more effective as a smoking cessation tool than over the counter nicotine replacement therapy.

smoking has been produced by the NCSCTxxxv.

7.4 The type of electronic cigarette used depends on personal preference. As with any new aid, tool or drug product, GPs in Hertfordshire have been advised not to prescribe electronic cigarettes or other novel nicotine containing products until local formulary processes which evaluate their effectiveness and cost-effectiveness have been followed. This position is supported by Hertfordshire County Council's Public Health Service. Hertfordshire Public Health will keep this under review in order to make best advice available to GPs.

8. The cost of tobacco

- 8.1 Tobacco use in Hertfordshire is a burden on the local economy and the exchequer, and has massive impact on individuals and families***. Licensed medications used to support quitting smoking are funded by Hertfordshire Public Health, costing around £1 million per year. Electronic cigarettes and NRT which are used to reduce tobacco on a short or longer term basis have to be self-funded by the user.
- 8.2 E-cigarettes will not be prescribed in Hertfordshire until the cost-effectiveness of their use as an aid to quit smoking has been fully assessed.
- 8.3 Smoking manufactured cigarettes costs between £7 and £10 for 20 cigarettes. E-cigarette start-up kits cost between £10, and £50 for more advanced tank starter packs, with refills costing approximately £5. Disposable e-cigarettes cost between £3 and £6 but vary in size and nicotine content.
- 8.4 Because of individual differences in use, it is difficult to directly compare the price of smoking and the price of vaping; e-cigarettes are considerably cheaper overall and approximately half of all e-cigarette users to date who quit smoking go on to not using them at all.

9. The role of e-cigarette (vape) shops

9.1 From 20 May 2016, electronic cigarette suppliers will only be able to sell regulated products (suppliers have until May 2017 to sell existing stock which may not be regulated). Suppliers of e-cigarettes and on-line forums are a source of information to vapers.

- 9.2 Retailers who specialise in e-cigarettes ("Vape shops") should be encouraged to refer smokers who want to stop smoking to Hertfordshire Stop Smoking Service.
- 9.3 Those that meet the required standard may be registered with Hertfordshire County Council as a Trusted Trader.

Appendix 3: Applications of the principles to local situations

The purpose of this Appendix is to outline options for organisations to consider in developing local policies in line with the Principles established by Public Health England and outlined in the policy statement.

Policies developed by each individual organisation will vary according to what will be acceptable to the organisation, their staff, service users and visitors within the organisation's legal responsibilities.

Suggested approaches are outlined below for organisations to consider relating to different population groups and environments. This is not a definitive list and agencies should satisfy themselves as to how the principles established apply to them.

Organisation or environment	Recommendation	Recommendation Pros to consider	Recommendation Cons to consider	Type of e-cig (rechargeable or disposable)	Further comments
Hertfordshire County Council workplaces (external)	Allow anywhere in grounds as in current policy. Not in council vehicles, consistent with existing policy on not smoking, eating or drinking in council vehicles for road safety reasons	Reinforces that vaping is not smoking and that people who vape are on the road to quitting smoking if they have not already done so	Smokers may see this as a lax Smokefree policy and start smoking outside permitted areas - clear communications will be needed around any changes	All licensed and/or regulated products, and product CE marked	This approach was developed following staff consultation and there has been no negative feedback to this since its implementation in 2014
Hertfordshire	Consider use in a	Some sites	No evidence of	All licensed	The County Council's staff
County Council	limited number of	may wish to	harm to non-	and/or regulated	consultation in 2014
workplaces	communal areas.	allocate a	users in	products, and	showed a majority of
(internal)		limited number	surrounding	product CE	people did not like the
	In consideration of	of temporary	environment, but	marked	perceived annoyance of

	others only at desks	vaping areas to	may be an	being in close proximity to
	if people agree.	test their use	annoyance in	the vapour of e-cigarettes
	County Council staff	and obtain	unrestricted	1
	in a consultation in	feedback from	areas	Seek and consider views of
	2014 showed a	users and other		non-vapers/non-smokers,
	majority against	staff	Staff are not	consider allowing some
	vaping at desks.		permitted to	form of internal vaping
	. •	Vaping is a	smoke outside	locally where a clear
	Not in council	route out of	designated	majority of staff are in
	vehicles, consistent	smoking –	unpaid breaks.	favour and consider piloting
	with existing policy	supporting this	People who	considerate worksite vaping
	on not smoking,	may encourage	vape should not	protocols for this (i.e. allow
	eating or drinking in	a significant	be seen to have	flavours which are not
	council vehicles for	number of staff	more breaks	strong or intrusive and
1	road safety reasons	to quit smoking	than other staff	amounts of vapour which
				are low.)
		One brand of	Smokers may	
		e-cigarette is	object to special	Fire safety concerns –
		licensed as a	consideration	consistent with policies on
		medicine that	given to people	charging mobile telephones
		may shortly be	who vape – to	and other personal devices,
		available on	anticipate in	not to be charged on site
		prescription.	related	unless sites have policies
		Other nicotine	communications	which allow properly tested
		containing		e-cigarette chargers to be
		products which		used.
		are licensed		There are implications
		medicines are not restricted at		There are implications
		work		when e-cigarettes, which are licensed as
		WUIK		medications, are available
				medications, are available

		No evidence of harm to non-users in surrounding environment			on prescription— employers need to be clear on what, if anything is the difference between inhaling a nicotine medicine and injecting insulin/taking an asthma inhaler?
Workplaces (not Herts County Council)	As above: consider use in designated internal communal areas Allow use in all external areas (not to confine to any designated smoking areas) Some employers may wish to consider providing vaping rooms	As above	As above	All licensed and/or regulated products, and product CE marked	As above: Aids compliance with Smokefree policies No evidence of harm to non-users in surrounding environment, but may be an annoyance. The County Council's survey in 2014 showed people did not like the perceived annoyance of being in close proximity to the vapour of e-cigarettes. Consider surveying staff. Seek and consider views of non-vapers/non-smokers, consider allowing some form or internal vaping locally where all staff are in favour

					Consider piloting considerate worksite vaping protocol (i.e. allow flavours which are not strong or intrusive and amounts of vapour which are low) There are implications when e-cigarettes, which are licensed as medications, are available on prescription— employers need to be clear on what, if anything, is the difference between inhaling a nicotine medicine and injecting insulin/taking an asthma inhaler?
Stop smoking services	Promote use and support smokers using e- cigarettes to quit or reduce smoking (self-funded at present)	Quit rates in stop smoking services have been reported to be as high as 70% in smokers using e-cigarettes to quit compared with 51% on average for England	The cost of e-cigarettes may be a barrier to smokers who would otherwise obtain free prescriptions for other medicines – consider potential for starter pack vouchers (as	All licensed and/or regulated products, and product CE marked	Licensed e-cigarettes need to be fully evaluated for effectiveness and costeffectiveness before being added to Hertfordshire's formulary of permitted smoking cessation products available to be prescribed. May encourage more smokers to use behavioural support to quit smoking – a

Open public places (including hospital grounds, but not in places where children play or learn)	Allow anywhere in grounds.	E-cigarettes are a route out of smoking for the most addicted individuals who have so far been unable to quit smoking Facilitates compliance with Smokefree I policies and encourages the public, patients, visitors and staff not to smoke	From a distance there may be difficulties in differentiating between smoking and vaping for some(the public and staff)	All licensed and/or regulated products, and product CE marked	No evidence of increased use in children or increased uptake of smoking in young people Vapers should not be segregated with smokers or confined to any shelters/restricted areas provided for smokers
Acute hospital settings	Consider allowing in some communal areas	Facilitates compliance with Smokefree hospital	From a distance there may be difficulties in differentiating	Regulated and licensed products, and product CE	If prescribed: formulary considerations as with all other medicines (clinical effectiveness and cost
(Not Mental Health Units – these are described below).	Consider for staff – as for workplaces above	policies and encourages patients, visitors and staff not to	between smoking and vaping for some(the public and staff)	marked No charging on site, so good quality	effectiveness and cost effectiveness) See the Department of Health guidance which does not permit the

		smoke		disposable products for	charging of e-cigarettes on health premises or in
		Facilitates		inpatients or	oxygen-rich environments.
		quitting in		sufficient supply	Available <u>here</u>
		patients with		of fully charged	
		long term		spares supplied	
		conditions who		by families on	
		have been		visits	
		unsuccessful			
		using			
		traditional			
		methods			
Mental Health Units	Allow	Smoking rates	Major cultural	All licensed	The above guidance does
		are highest	change still	and/or regulated	not apply to mental health
		amongst	needed – HPfT	products, and	units.
		people with	is developing an	product CE	
		mental health	e-cigarette	marked	Separate guidance has
		conditions and	policy to		been issued by the
		a major cause	address this	Use of	Department of Health which
		of reduced life		rechargeable e-	permits rechargeable
		expectancy		cigarettes can be	products in mental health
		11		considered in	Inpatient Units
		Hertfordshire		line with	
		Partnership		Department of	
		foundation		Health Estates &	E-cigarettes are available in
		Trust is already		Facilities Alert	prisons and South London
		Smokefree – in line with		issued 7/7/2014	& Maudsley Mental Health Units
		several other			Units
		Mental Health			Vapore should not be
					Vapers should not be
		Trusts			segregated with smokers or

Maternity & Services for pregnant women	Consider in defined internal areas, but do not segregate vapers with smokers in grounds or confine to any shelters/restricted areas provided for smokers	Quitting smoking in pregnancy can be difficult. Pregnant smokers who can't quit using other methods may be successful using e- cigarettes E-cigarettes should not be	NICE guidance is that pregnant women should be advised to quit smoking and not to reduce smoking. Clear communication will be needed to ensure the message remains to quit rather than cut down	All licensed and/or regulated products, and product CE marked	confined to any shelters/restricted areas provided for smokers Supports Smokefree policies and has the potential to reduce smoking prevalence in those at greatest risk of smoking-related health inequalities Adulteration of tank models is a concern for mental health inpatients, so should not be made available If prescribed: formulary considerations as with all other medicines (clinical effectiveness and cost effectiveness) Pregnant smokers should be encouraged to receive stop smoking support and use licensed nicotine products. They should not be discouraged from using e-cigarettes in place of smoking. The goal is to help every pregnant woman
			aown		to stop smoking and we
		discouraged in			to stop smoking and we

Open and internal places designated for children's play or learning	Prohibit generally, consistent with the principle of managing and reducing uptake by children Consider allowing in enclosed adult-only areas for staff who work in such premises	pregnant smokers who would otherwise smoke Consistent with the principle of managing and reducing uptake by children	Parents may vape at home in preference to smoking around children and this should be encouraged	All licensed and/or regulated products, and product CE marked (in designated adultonly areas only)	must avoid them continuing to smoke when there is a safer alternative. E.g. children's playgrounds/school premises/children's centres. Smoking and ecigarettes should not be role modelled in front of children Some disposable ecigarettes look like actual cigarettes
Prisons and in custody	Allow	Offenders are at significant risk of smoking-related health inequalities and have high rates of smoking. The use of ecigarettes can reduce the	The range of e-cigarettes needs to be reviewed to ensure that the ones permitted are safe and fit for purpose	All licensed and/or regulated products, and product CE marked, approved by the Ministry of Justice for use in prisons Disposable products only	Some models have been reviewed by Public Health England and are approved for use and stocked within some prison shops. Supports rollout of Smokefree prisons

.

		side-effects of nicotine withdrawal including irritability and aggression		currently allowed	
Adult residential care services	Allow in bedrooms and communal areas (i.e. these are peoples' homes)	Smoking is a significant cause of fires in the elderly and infirm. Although there are incomplete data on fires caused by faulty e-cigarettes, the general consensus is that they are much less harmful in this respect than lighted cigarettes Can be a route out of smoking for individuals	The large array of e-cigarettes may be confusing and service users may initially need support – overall guidance available through Hertfordshire's Stop Smoking Service	All licensed and/or regulated products, and product CE marked Disposable products may be preferred unless residential care sites have policies which allow properly tested ecigarette chargers to be used.	Staff to comply with workplace policy Fire safety concerns – not to be charged on site or in oxygen-rich environments unless sites have policies which allow properly tested e-cigarette chargers to be used in specific areas See the Department of Health guidance which does not permit the charging of e-cigarettes on health premises or in oxygen-rich environments. Available here

		who would			
		otherwise not			
		consider			
D 111 (Dark St. St. St. Annual Land	quitting	Nie en la en l'étant	Diff. 10.0	Difficult (a. constitut
Public transport	Prohibit in enclosed	Facilitates the	None identified	Difficult to	Difficult to monitor
systems (inside	spaces, allow in non-	enforcement of		achieve the	
trains and buses,	enclosed spaces	Smokefree		necessary	
for example)		legislation		balance of	
		especially		considering the	
		when there is		views of non-	
		limited direct		vapers and	
		contact with		enforce	
		service users		Smokefree	
				legislation	
Hospitality	Permit in all open	Supports	Potential	All licensed	
industry: hotels,	spaces	effective	confusion as	and/or regulated	
pubs, clubs and	оролого	tobacco harm	different	products, and	Fire safety concerns – not
restaurants	Permit vaping areas	reduction for	organisations	product CE	to be charged on site
Testadiants	in restaurants, pubs	the public.	may be guided	marked	unless sites have policies
	and hotels subject to	tile public.	at a national	markoa	which allow properly tested
	considering non-	Also supports	level		e-cigarette chargers to be
	vaping areas and	routine and	ICVCI		used.
					useu.
	ensuring the amount	manual			
	of vapour and smell	workers to quit			
	is not intrusive to	(high rates of			
	others	smoking in this			
		group)			

References

Reterenc

- vii ASH (2016) the Stolen Years. Available here: http://www.ash.org.uk/current-policy-issues/health-inequalities/smoking-and-mental-health/the-stolen-years
- viii Action on Smoking and Health. Smoking: low income families Available at: http://www.ash.org.uk/current-policy-issues/health-inequalities/health-inequalities-resource-pack
- ix Hertfordshire County Council (2013) Tobacco Harm Reduction Guidance. Available at: www.hertfordshire.gov.uk/stopsmoking
- ^x National Institute for Health and Care Excellence (NICE) (2013) PH 45 Smoking: harm reduction. Available at: https://www.nice.org.uk/guidance/ph45
- xi Public Health England (2015) E-cigarettes: An evidence update: a report commissioned by Public Health England. Available at: https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update
- xii Nutt et al. (2014) Estimating the Harms of Nicotine-Containing Products Using the MCDA Approach. Available here: https://www.karger.com/Article/FullText/360220
- xiii Public Health England (2015) E-cigarettes: An evidence update: a report commissioned by Public Health England. Available at: https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update
- xiv Public Health England (2016) Use of electronic cigarettes in public places and workplaces. Advice to inform evidence-based policy.
- xv Royal College of Physicians (2016) Nicotine without smoke: Tobacco harm reduction. A report by the Tobacco Advisory Group of the Royal College of Physicians. Available here: https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0
- xvi Public Health England (2015) E-cigarettes: An evidence update: a report commissioned by Public Health England. Available at: https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update
- xvii ASH (May 2016) Use of electronic cigarettes (vapourisers) among adults in Great Britain.
- xviii Action on Smoking and Health (Wales) (2016) A study into young people's e-cigarette awareness and usage -2016
- xix ASH (May 2016) Use of electronic cigarettes (vapourisers) among adults in Great Britain.
- xx Royal College of Physicians (2016) Nicotine without smoke: Tobacco harm reduction. A report by the Tobacco Advisory Group of the Royal College of Physicians. Available at: https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0
- xxi Hertfordshire Fire and Rescue Service (2016) Guidance to Hertfordshire Fire and Rescue Services

ⁱ Hertfordshire County Council (2013) Reducing the harm from tobacco in Hertfordshire: A policy statement. Available at: hertfordshire.gov.uk Tobacco Control Strategy/Documents

ii Tobacco Profiles (2015) Available at: http://www.tobaccoprofiles.info/

iii National Institute for Health and Care Excellence (NICE) (2013) PH 45 Smoking: harm reduction. Available at: https://www.nice.org.uk/guidance/ph45

iv ASH (2015) Stopping smoking: The benefits and aids to quitting.

^v ASH (2015) The Local Cost of Tobacco. ASH Ready Reckoner, December 2015 update.

vi Tobacco Profiles (2014). Available at: http://www.tobaccoprofiles.info/

xxii Children's and Families Act (2014) (part 5) Available at: http://www.legislation.gov.uk/ukpga/2014/6/contents/enacted

xxiii Estates and Facilities Alert (June 2014) EFA/2014/002. E-cigarettes, batteries and chargers. Available at https://www.health-ni.gov.uk/publications/niaic-estates-and-facilities-alerts-publications

xxiv Royal College of Physicians (2016) Nicotine without smoke: Tobacco harm reduction. A report by the Tobacco Advisory Group of the Royal College of Physicians. Available at: https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0

xxv Farsalinos (2015) Response to research on diacetyl flavouring in e-cigarettes. Available at: http://www.ecigarette-research.org/research/index.php/whats-new/whatsnew-2015/236-da2

xxvi National Institute for Health and Care Excellence (NICE) (2013) PH 45 Smoking: harm reduction. Available at:

https://www.nice.org.uk/guidance/ph45

xxvii Royal College of Physicians (2016) Nicotine without smoke: Tobacco harm reduction. A report by the Tobacco Advisory Group of the Royal College of Physicians. Available at: https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0

xxviii National Institute for Health and Care Excellence (2010) Stopping smoking in pregnancy and after childbirth. Available at: https://www.nice.org.uk/guidance/ph26?unlid=3676998152015918586

xxix Public Health England (2015) E-cigarettes: An evidence update: a report commissioned by Public Health England. Available at: https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update

xxx Cochrane (2012) Nicotine Replacement Therapy for Smoking Cessation. Available at: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000146.pub4/abstract;jsessionid=EF13C8B4F39C 77EC413449D926026960.f03t03

xxxiii Public Health England (2015) E-cigarettes: An evidence update: a report commissioned by Public Health England. Available at: https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update

xxxiii National Centre for Smoking Cessation and Training (NCSCT) (2016) Electronic Cigarettes: A briefing for stop smoking services. Available here:

http://www.ncsct.co.uk/publication electronic cigarette briefing.php

xxxiv National Centre for Smoking Cessation and Training (NCSCT) (2016) Electronic Cigarettes: A briefing for stop smoking services. Available here: http://www.ncsct.co.uk/publication electronic cigarette briefing.php

xxxv NCSCT (2015) Electronic Cigarettes (2016) A briefing note for Stop Smoking Services. Available here: http://www.ncsct.co.uk/publication_electronic_cigarette_briefing.php

xxxvi West, R. et al. Smoking Toolkit Study (May 2016) Trends in electronic cigarette use in England. Available here: http://www.smokinginengland.info/latest-statistics/

xxxvii Policy Exchange (2010) Balancing tobacco income and the costs to society. Available here: http://www.policyexchange.org.uk/publications/category/item/cough-up-balancing-tobacco-income-and-costs-in-society