Public Health England

Protecting and improving the nation's health

Report of PHE stakeholder 'conversation' on use of e-cigarettes in enclosed public places and workplaces

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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1. Consultation process and content

In December 2014 Public Health England (PHE) initiated an engagement exercise with stakeholders on use of e-cigarettes in enclosed public places and workplaces, designed to encourage debate and build an evidence-based consensus around the issue.

In consultation with public health partners, PHE developed five evidence-based draft principles to guide policies and practice. These formed the basis for an online survey, framed as a 'conversation' on the evidence and its implications for policies and practice. The process was conducted in two phases, with the survey opened first to members of the Association of Directors of Public Health and the Faculty of Public Health, and then to the wider stakeholder community (see appendix 1).

In the survey each draft principle was accompanied by a short summary of the evidence. To add depth to the debate, PHE invited leading tobacco control experts to provide independent video commentaries on each of the principles, either supporting the proposition as drafted, or offering challenge and recommending an improved or alternative approach (see appendix 2).

Stakeholders were invited to give their views on the draft principles, indicating whether or not PHE had provided a fair reading of the evidence and its implications, or whether they believed there to be insufficient evidence upon which to base a position. Finally, they had an opportunity to draw to PHE's attention any additional evidence, or to put forward an alternative evidence-based proposition (see appendix 3).

PHE's five draft principles for policies and practice

1. **Distinguishing between vaping and smoking:** In order to maximise the potential for use of nicotine vapourisers to make smoking less of a social norm, regulation and policy should create a clear distinction between vaping and smoking.

2. **Protecting bystanders:** Based on the available evidence, the risk to the health of bystanders from exposure to vapour from nicotine vapourisers is extremely low. A legal ban on the use of nicotine vapourisers in enclosed public places and workplaces would not be justified on the grounds of passive exposure.

3. **Protecting children and young people:** Nicotine vapourisers can help reduce exposure of children and young people to secondhand smoke and to smoking role models. In developing policies for child and youth settings it is appropriate to guard against potential youth uptake and this should be balanced with the need to foster an environment where it is easier for adult smokers not to smoke.

4. **Supporting smokers to stop:** Policies should clearly distinguish vaping from smoking. A more facilitative approach may be appropriate in relation to vaping so that it is an easier choice for people to vape than to smoke. In particular vapers should not be made to share the same space with people who are smoking, as this could undermine their ability to stay smokefree or to quit, particularly among those most heavily addicted.

5. **Impact on compliance with smokefree law and policies:** Compliance with smokefree requirements can be supported by emphasising a clear distinction between smoking and vaping and by communicating the policy clearly to everyone who is affected by it.

2. Response to the survey

The process closed on 31 March 2015 and 978 responses were received from a wide range of stakeholders. Across the five draft principles, the response was as follows:

- "This is a **fair reading** of the current evidence and its implications": **74%-82%**
- "There is **insufficient evidence** upon which to base a position": **11%-16%**
- "This is **not a fair reading** of the current evidence and its implications": **7%-13%**

PHE's Principle 4, relating to supporting smokers to stop, attracted the highest level of support at 82% and Principle 1, relating to distinguishing between vaping and smoking, the lowest at 74%. Across the five principles, between 11% and 16% of respondents said that there is insufficient evidence upon which to base a position. Gaps in knowledge identified included long-term health risks to users and bystanders, impact on the renormalisation / denormalisation of smoking and the addictiveness of the products.

Key to figures 1-6

■ This is not a fair reading of the current evidence and its implications

■ There is insufficient evidence upon which to base a position

■ This is a fair reading of the current evidence and its implications

Fig 1: Overall support for PHE's draft principles
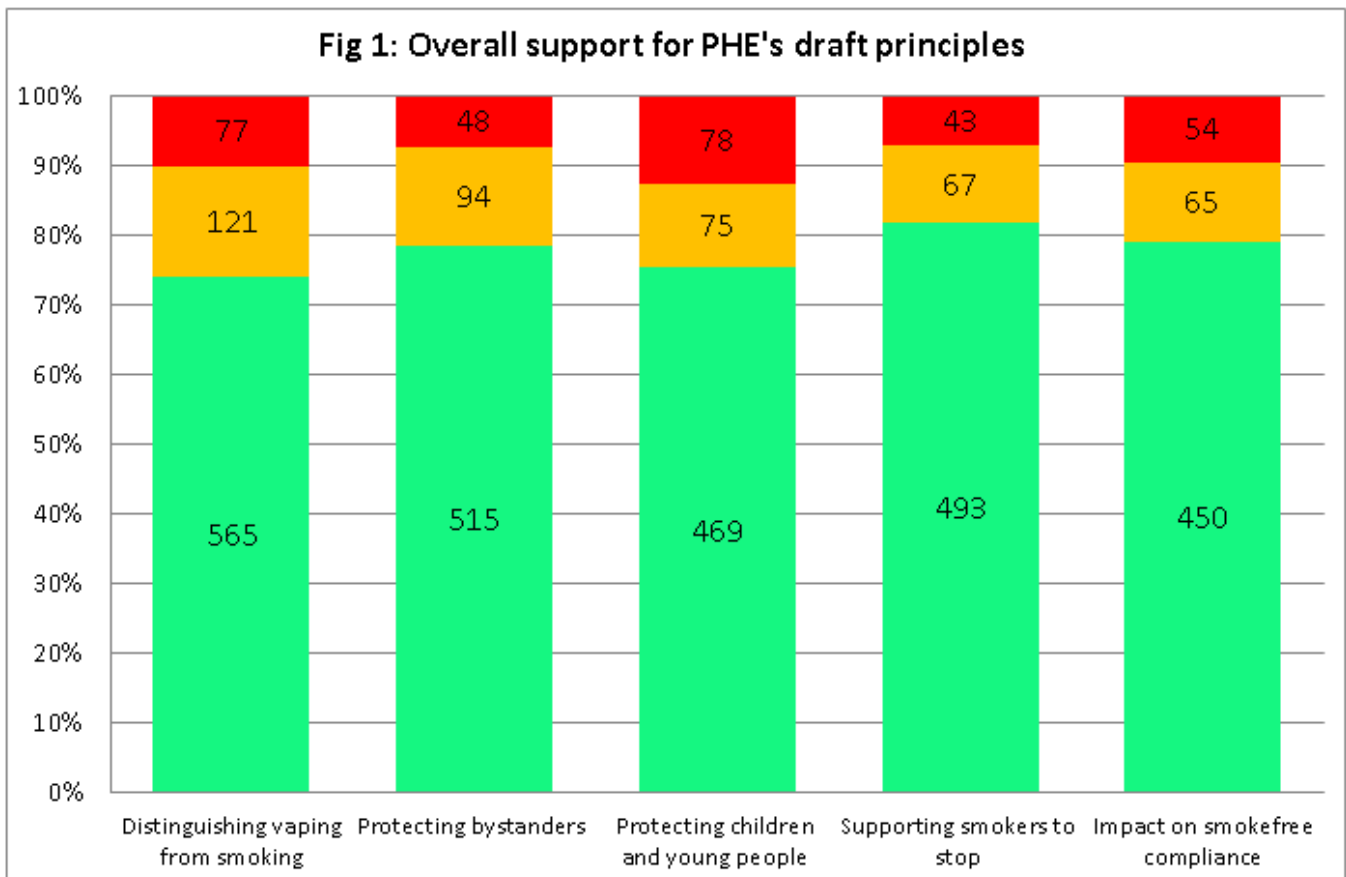
Fig 2: To help make smoking less of a social norm, regulation and policy should distinguish clearly between vaping and smoking
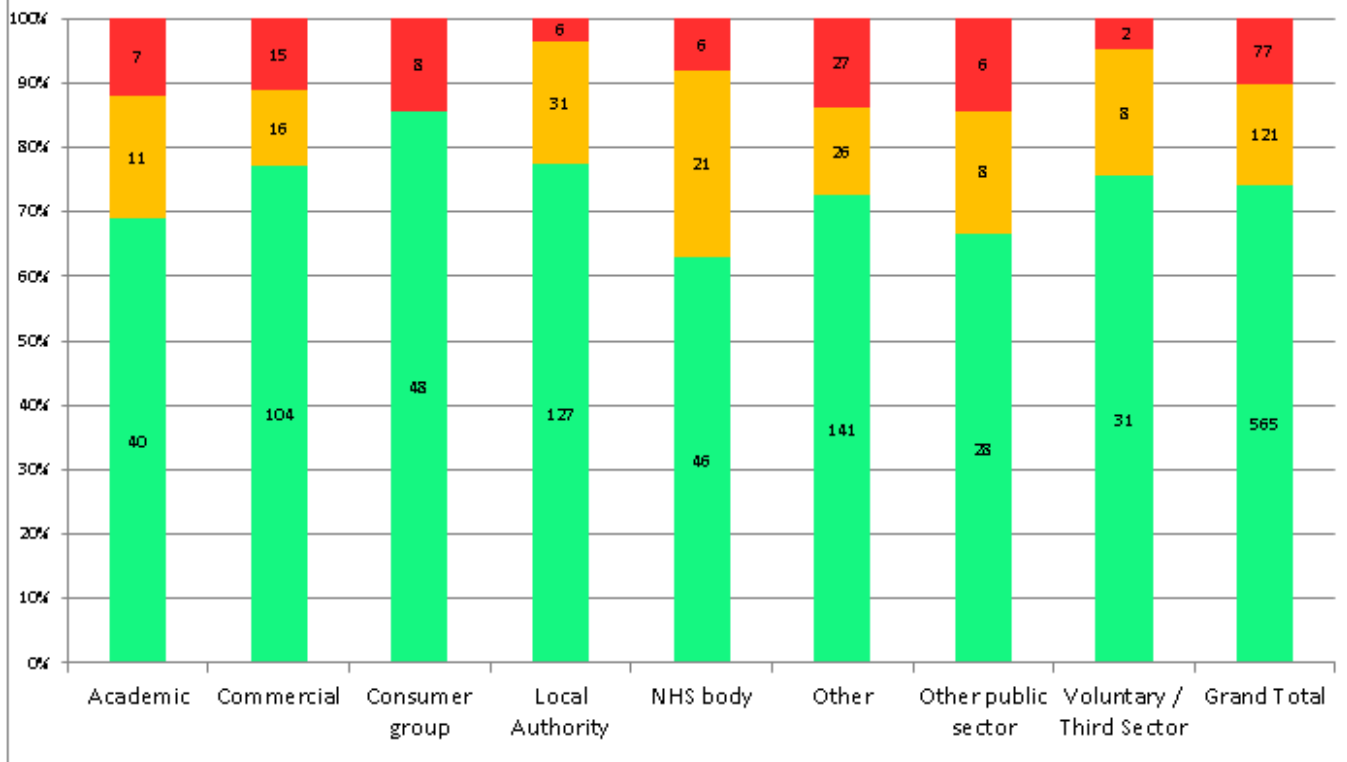
Fig 3: A legal ban on use in enclosed public places and workplaces would not be justified on the grounds of passive exposure
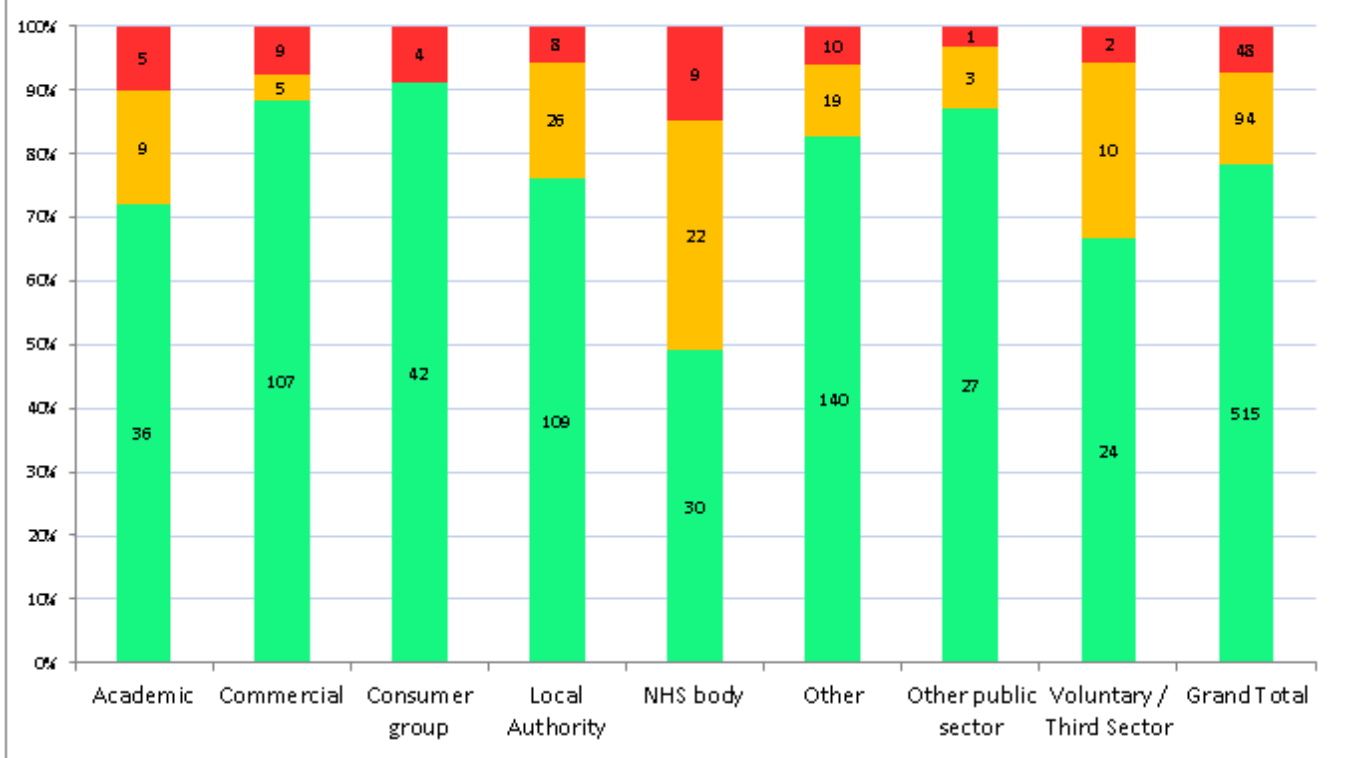
Fig 4: Guarding against youth uptake should be balanced with fostering an environment where it is easier for adults not to smoke
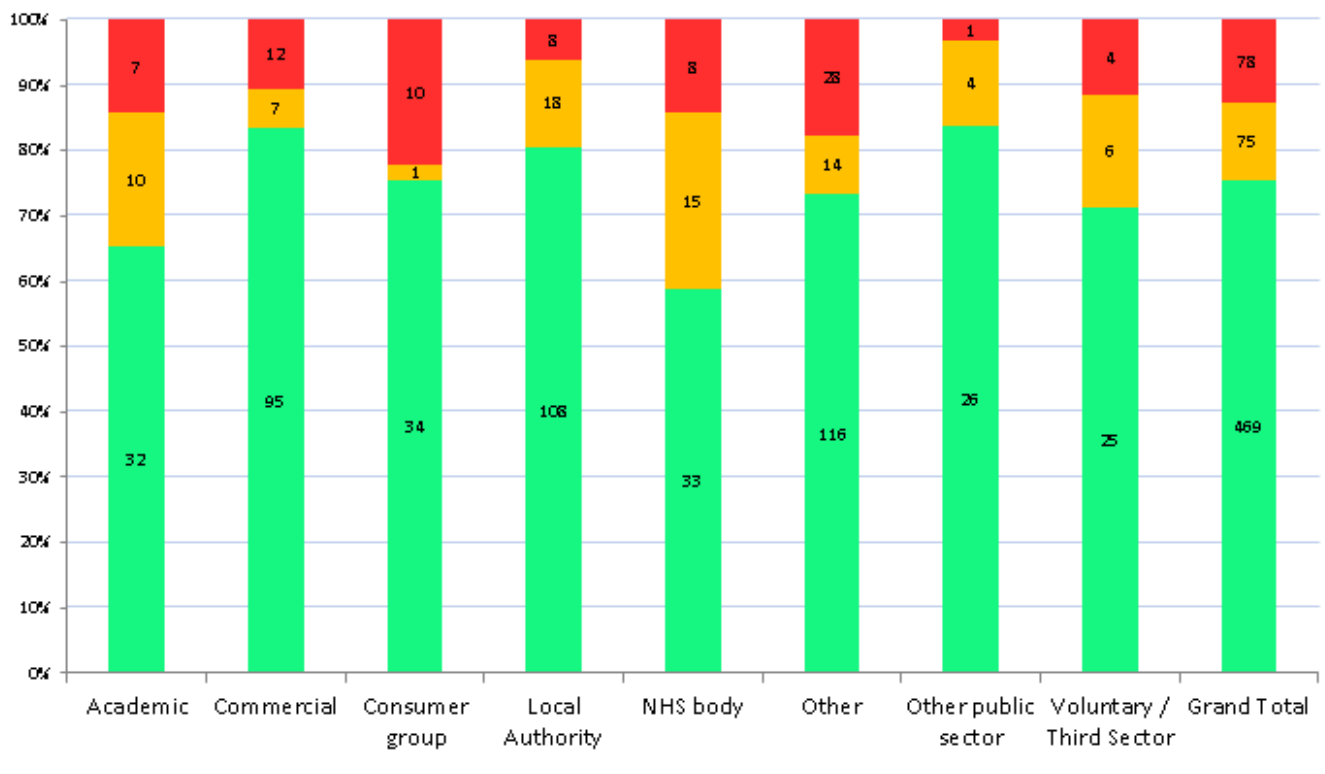
Fig 5: A more facilitative policy approach to vaping may be appropriate so that it is an easier choice to vape than to smoke

Fig 6: Compliance with smokefree requirements can be supported by emphasising a clear distinction between smoking and vaping

Note on Figures 1-6:
Not all respondents responded to every question in the survey. Responses are not weighted and the numbers reflect simply the volume of stakeholders who chose to respond and the questions they chose to respond to.
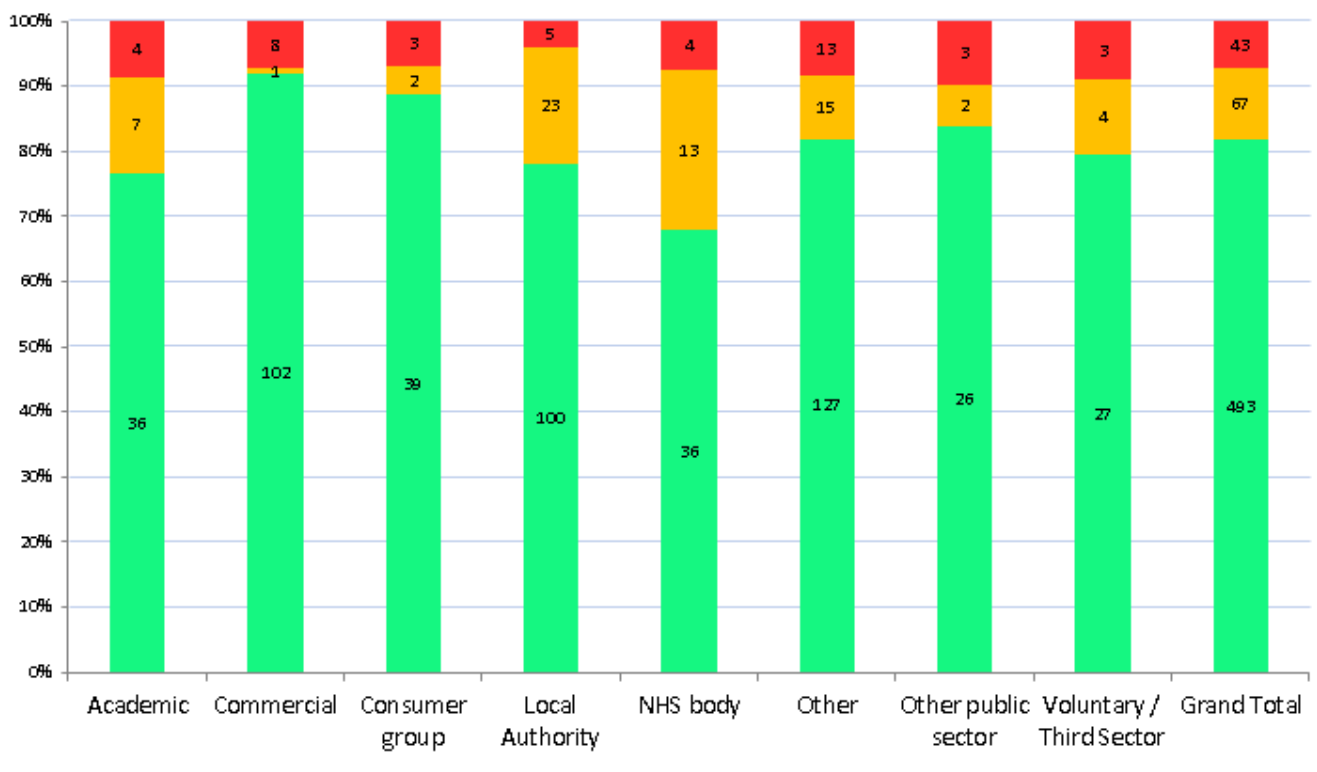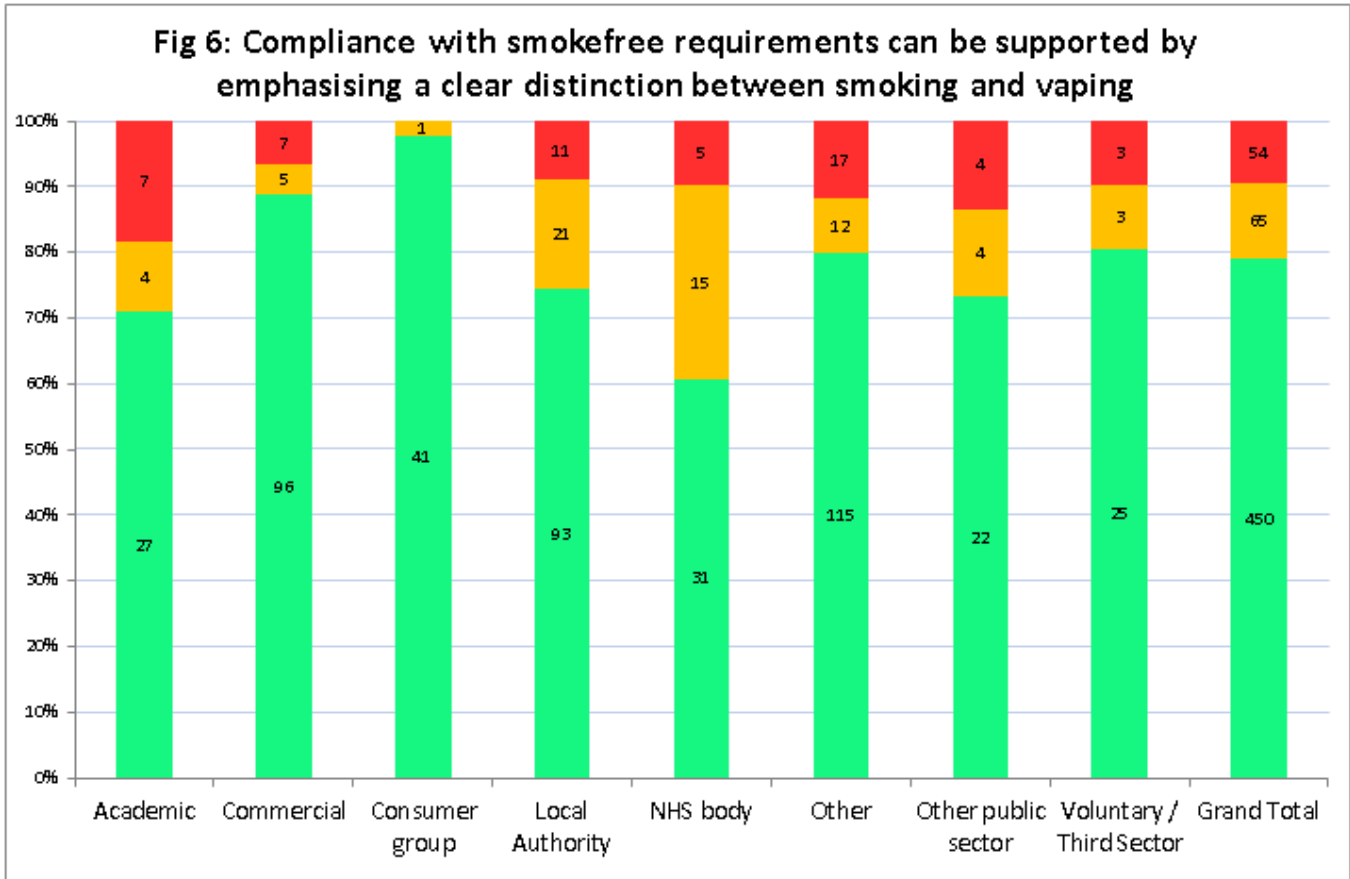
Taken overall, the response to the survey indicated an encouraging level of support for PHE's developing approach on this issue.

- over three quarters of respondents agreed with the proposition that a legal ban on vaping indoors would not be justified on the grounds of risk to the health of bystanders from passive exposure
- over four fifths of respondents agreed that to support smokers to stop, it should be easier to vape than to smoke
- three quarters of respondents agreed that while policies should guard against encouraging youth uptake, nicotine vapourisers can help reduce exposure of children and young people to secondhand smoke and to smoking role models

3. Additional evidence cited by respondents

Some additional peer-reviewed evidence was cited by respondents to the survey, as well as a small amount of grey literature (see appendix A). This has been reviewed to assess whether it changes any of the assessments that were used to inform PHE's draft principles to guide policies and practice.

1. A proportion of the peer-reviewed research cited by respondents as additional evidence was already cited in the evidence summaries accompanying the draft principles in the online survey.
2. A proportion of the peer-reviewed research cited by respondents has been cited in the independent evidence reviews published by PHE in 2014 and 2015, and is consistent with the assessments used to inform PHE's draft principles.
3. A small number of peer-reviewed studies were cited that have not been cited either in the evidence summaries within the online survey or the independent evidence reviews commissioned by PHE. This evidence has been analysed and has not been found to alter the assessments used to inform PHE's draft principles.
4. The grey literature submitted by respondents has been reviewed and, while it has been found to offer some interesting insights, it does not alter the assessments used to inform PHE's draft principles.

For a list of references cited, see appendix 3.

4. Observations and insights, and suggested alternative propositions

A number of survey respondents offered personal or experiential observations and insights. Some suggestions were offered for alternative propositions for an approach to use of e-cigarettes in public places and workplaces. A representative selection of the main points raised is reproduced below (the quotes are, as far as possible, as provided by respondents). This feedback has been considered in the process of developing PHE's advice on the use of e-cigarettes in public places and workplaces.

Distinguishing between vaping and smoking

"First generation devices (cigalikes) represent a rapidly decreasing market segment. Second and later generation devices make the distinction between smoking and vaping obvious by their appearance alone."

"There needs to be greater public information about e-cigarettes and the relative risks of vaping and smoking so that a clear distinction can be made. Any distinction is not just visual."

"The term 'e-cigarette' is problematic in terms of the subconscious tie to tobacco industries that is assumed by many people."

"It is in the interests of public health to reduce smoking and denormalise smoking for young people. However vaping presents a new challenge, the normalisation of nicotine use/addiction in the form of inhaled nicotine. More research is needed to understand the impact on young people of the modelling of vaping by adults."

Protecting bystanders

"While it may be true that e-cigarette vapour is less harmful than tobacco smoke, that is no reason to promote indoor environments which reintroduce any chemical or particulate contaminants that we have taken many years to remove."

"Whilst there remains any level of risk we need to be careful about drawing firm conclusions. No level of risk is acceptable especially in the case of children and young people's health and that of pregnant women. Research is urgently needed to measure exposure levels to the vapours produced and the impact of this on humans."

"It would be preferable to have more evidence around long term exposure to secondhand vapour, but we cannot wait that long for a position. And we cannot call for legislation based on potential risks, when there is currently no evidence of harm."

"Public place bans will be very likely to give the wrong message to smokers. Bans on usage will suggest to the uninformed that vaping is just as bad as smoking and will inevitably cause some smokers to remain smokers when otherwise they would have switched."

"Employers and retailers etc should be free to permit, or not permit, vaping as they see appropriate. The managers of premises can implement adequate measures without legal interventions."

"It is possible to behave anti-socially whilst still posing no identifiable health risk to others. Vaping should be allowed in public places, but people using e-cigarettes should always be respectful to other people around them."

Protecting children and young people

"The differential between the dependence-forming potential of e-cigarettes and cigarettes must inform policy. Approximately 50% of children who try cigarettes go on to become daily smokers. In contrast there is so far no evidence that tobacco-naive children are becoming daily e-cigarette users in any significant numbers. We should be clear that, while it is preferable for youth not to use e-cigarettes, it's also preferable for them to use them instead of cigarettes. The current evidence does not support any strong moves to protect children and adolescents, save for sensible regulations which prohibit the direct sale of the products to under 18s, but this should be monitored carefully and longitudinally."

"Although it is accepted that vaping denormalises cigarette use there is the counter that is normalises vaping. We need to consider the effect of this normalisation on children and young people – although vaping is preferable to smoking for existing smokers, it is not preferable to neither smoking nor vaping. The benefit of vapourisers in replacing smoking must be balanced against the potential in use among non-smokers. The evidence so far suggests a minimal risk of this but it is early days and there is much that can change if vaping is normalised."

"Smoking parents who make the switch to vaping are in a position to be able to educate their children about both behaviours, and this is something which the public health community could also usefully get involved with."

"Good education campaigns to inform children and young people about the relative risks of the two products, and indeed, about the effects of nicotine, might help to ensure that our young people understand more about these adult products. The fact that this is an area of concern that needs careful monitoring should not mean that excessive application of a precautionary approach to protect young people should be allowed to deny adult smokers the opportunity to significantly improve their health, wealth and longevity. It is also important to recognise the need to protect children from losing their parents to smoking-related premature death."

"It is important that all reasonable efforts are made to prevent young people using e-cigarettes. Not only are the full health effects unknown but the evidence suggests that exposure to nicotine is particularly dangerous for younger people and use in adolescence may cause lasting adverse consequences for brain development…If passive exposure to e-cigarette use influences uptake among young people, consideration should be given how policies can limit young peoples' total exposure to e-cigarettes without undermining any wider health benefits."

"Since there is a ban on the sale of electronic cigarettes to anyone under 18, it stands to reason that premises with a large proportion of visitors under the age of 18 should consider banning the use of electronic devices. Although there is as yet little evidence that children are developing long term vaping habits without having first been smokers, nicotine is still an addictive substance, and the potential to encourage e-cigarette use among children should be borne in mind by premises with children and family areas."

Supporting smokers to stop

"Using NHS Stop Smoking Services remains the best way for a smoker to quit and this should continue to be emphasised given the current evidence. There is emerging evidence that e-cigarettes have the potential to help smokers quit but evidence from randomised-controlled trials is still limited."

"There are no randomised controlled trials of e-cigarettes as part of NHS smoking cessation services vs other forms of NRT at the same dose which would provide a valid comparison."

"Nicotine vaporisers that have medical licences will have a place amongst NRT products but are unlikely to appeal to the large number of people who have successfully given up or cut down their smoking. Vaping is an antidote to smoking as, once a person has switched completely they find the smell and taste of cigarettes disgusting. The many flavours available ensure that vapers do not return to smoking but they should not be forced to breathe second-hand smoke

and, if they are new vapers, being forced to join smokers could encourage them back to smoking, although some smokers might be persuaded to try vaping."

"Smokers can achieve their desired blood plasma nicotine level with one cigarette every hour or so, and can do so in a short space of time. Vaping provides a generally lower blood nicotine level and takes longer to reach a desired level, requiring frequent top-ups during the interim period. Experienced users do not vape like smokers, but tend to take regular small top-ups."

"Vapers need to puff more often to reach and maintain the same level of body concentration of nicotine. In businesses where vaping cannot reasonably be permitted in the workplace, it must be understood that vapers will need to vape more regularly than smokers smoke. That said, there must be a red line: vapers **must not** be forced to stand in a smoking area in exposure to secondhand smoke."

"I never intended to quit smoking so I would never have tried NRT or therapy, I switched by accident having first started vaping to stay indoors. This ability to reach the 'never going to try quitting' is unique to vaping so I'm unsure how that fits into the stats."

"The issue of facilitating people to quit, in this case through the use of e-cigs should be carefully balanced against the risks to children in being exposed to vaping, and normalising nicotine addiction."

"I would just want to see a push towards people not smoking AND vaping as this will not help their health outcomes."

"Important to acknowledge that being in a public place with lots of vaping could affect those with respiratory problems. A position for hospitals etc might be – tobacco smoking banned on whole site as part of 'smoke free sites' policy (NICE 2012) but e-cigarettes allowed outside (therefore not pushing the vapers to the same area as tobacco smokers)."

Impact on compliance with smokefree policies

"The easiest way to enforce smoke free spaces is to have a universal policy. This is simple to enforce, as many pub, train and bus companies have demonstrated. Concessions for eCigs will undermine existing (successful) smoke free legislation."

"There does need to be a clear separation between what vaping looks like and what smoking looks like. Vaping in public places is unlikely to do any harm - however it may be a nuisance still. The threat of legislation if vaping isn't done

respectfully should remain. Vaping should not become the nicotine inhalation process you can use in a public place regardless of others rights not to breathe those vapours (although they may do no harm)."

"Apart from a superficial resemblance e-cigs are very different from smoking, the difficulty in distinguishing between someone vaping or smoking is very low. The practical difficulties in enforcing a ban should also be considered, vapers can vape in a very discreet manner, this makes enforcement impossible."

"It is extremely easy to detect cigarette smoke from vapour by both odour and the speed of vapour dissipation compared to smoke. This is a training issue."

"Smokefree law does not and should not apply to vaping. Property owners should be the ones to decide what is allowed on their premises. It is helpful when they use signs to make vape bans clear. Customers can decide themselves if they want to be in an environment where vaping is or is not allowed. If the argument that ecigs look like cigarettes is followed to its conclusion, it would suggest there should be a ban on cigalike ecigs, not second or later generation products. "

"It is simple to distinguish a vaper from a smoker – the smell, the necessity to get rid of ash, the inability to set a lit cigarette down at any point during consumption. These are very easily identifiable signs of a contravening of law/policy. If education on the risk of passive vaping was realistic and credible, there would be little public concern about a vaper in their midst. There would be great concern about a smoker in the midst. This education allows the public to become the 'eyes and nose' of staff/officials and alleviates any additional time/cost burden on business owners for a sensible policy towards vapers."

"Employers and venues should be encouraged to take into account the health and wellbeing of all their employees and customers, including those who smoke and wish to cut down or give up. I don't think there has been any research into the emissions from a smoker who has just come in from having a cigarette compared to the emissions from a vaper who remains inside but the comparison would likely favour allowing people to vape indoors rather than smoke outdoors."

"Owners' discretion, and clear approved signage. There needs to be an opt out system rather than an opt in system for businesses to restrict vaping. Smoking should remain as a blanket ban in all venues with tighter control on smoking spaces outside. The current rules do not prevent exposure to young children. They make them more exposed as the smokers can be clearly seen outside businesses and workplaces."

"Encouraging vaping in public places is the best way of increasing awareness of vaping as a viable alternative to smoking."

"What I would like to see in most public places is a notice: 'Vaping allowed – no clouds'. It is perfectly possible to enjoy vaping without producing large clouds of vapour and I consider this practise to be infantile and offensive."

"Offering a legal alternative to smoking in enclosed spaces will also reduce the temptation for people to smoke where it is not permitted, and could for many be a reason to try the safer alternative. Many of those people may well go on to significantly reduce tobacco consumption or will cease altogether."

Appendix 1. Organisations invited to take part in the stakeholder 'conversation'*

Association of Directors of Public Health
Faculty of Public Health
NICE
UK Health Forum
UK Health Forum
Local Government Association
Deputy Chief Medical Officer
PS/Chief Medical Officer
Health and Safety Executive
Confederation of British Industry
British Chambers of Commerce
Federation of Small Businesses
Institute of Directors
Chartered Institute of Personnel and Development
TUC
British Beer and Pub Association
Restaurant Association
British Hospitality Association
Sport & Recreation Alliance
Airport Operators Association
Association of Train Operating Companies (ATOC)
Network Rail
Confederation of Passenger Transport UK (CPT)
New Nicotine Alliance
E-cigarette Forum
UK Vapers (forum)
European Free Vaping Initiative UK
Vapers Shed
All About E-Cigarettes (AAEC forum)
The Vaping Forum
Ecig Reviews
The Vapers Den
Planet of the Vapes

*The organisations listed above were asked to share the link to the online survey with their memberships/networks for individual response. In addition the survey was brought to the attention of the wider stakeholder community, with an invitation to participate, via PHE's national stakeholder e-bulletin and cascade by PHE centres to local networks.

Appendix 2. Experts who provided video commentaries to accompany the survey

Professor Ann McNeill	King's College London
Cecilia Farren	GASP
Professor John Britton	University of Nottingham / UK Centre for Tobacco and Alcohol Studies
Andrea Crossfield	Tobacco Free Futures
Deborah Arnott	Action on Smoking and Health
Professor Gerard Hastings	University of Stirling
Professor Robert West	University College London
Dr Andy McEwen	National Centre for Smoking Cessation and Training
Ian Gray	Chartered Institute of Environmental Health
Peter Astley	Warrington Borough Council

Appendix 3. Evidence cited by survey respondents

The references listed below are as cited by survey respondents. Hyperlinks to the sources are provided where these were included or it has been possible to find them.

Distinguishing between vaping and smoking

S Chapman BMJ 2014: http://blogs.bmj.com/bmj/2014/03/17/simon-chapman-will-vapers-really-quit-and-not-die/

CDC data from the United States, Dautzenberg Parisian adolescents Peering Through the Mist – www.biomedcentral.com/1471-2458/14/18

www.tobaccoinduceddiseases.com/content/8/1/8

The Case in Favor of E-Cigarettes for Tobacco Harm Reduction, Joel L Nitzkin www.ncbi.nlm.nih.gov/pmc/articles/PMC4078589/

e-cigarette research – Konstantinos Farsalinos scientific blog
 www.ecigarette-research.org/research/index.php

Protecting bystanders

S Chapman BMJ 2014, S Glantz 2014 – vapour contains toxins at low concentration

Pisinger and Dossing Preventive Medicine 2014 Mcfiggins Harrison work reported to the ecig summit

Exposure to Electronic Cigarettes Impairs Pulmonary Anti-Bacterial and Anti-Viral Defenses in a Mouse Model Thomas E. Sussan et al

Comparison of select analytes in aerosol from e-cigarettes with smoke from conventional cigarettes and with ambient air

NNA briefing paper: E-Cigarettes – Why bans on use in enclosed public spaces would be detrimental to the public health goals of Scotland http://nnalliance.org/blog/90-nna-briefing-paper-on-bans-in-enclosed-public-spaces

www.biomedcentral.com/content/pdf/1471-2458-14-18.pdf

www.biomedcentral.com/1471-2458/14/18/abstract

http://onvaping.com/the-ultimate-list-of-studies-on-e-cigarettes-and-their-safety/
www.tandfonline.com/doi/abs/10.3109/08958378.2013.793439
http://jpet.aspetjournals.org/content/91/1/52.abstract
www.scribd.com/doc/195347257/Nicotine-and-Health

Peering through the mist: What does the chemistry of contaminants in electronic cigarettes tell us about health risks? Igor Burstyn, PhD Department of Environmental and Occupational Health School of Public Health Drexel University 1505 Race St., Mail Stop

www.ecigarette-research.org/research/index.php

http://stuffhappens.us/e-cigs-have-10x-more-cancer-causing-ingredients-14507/.

www.sciencedirect.com/science/article/pii/S0273230014002505
http://acsh.org/2015/02/machine-puffed-e-cigs-yielded-vapor-containing-exactly-youd-expect-much-else/

Protecting children and young people

www.sciencedirect.com/science/article/pii/S0376871614019863
http://news.psu.edu/story/337639/2014/12/09/research/e-cigarettes-less-addictive-cigarettes

www.ncbi.nlm.nih.gov/pubmed/25561385
http://onvaping.com/the-ultimate-list-of-studies-on-e-cigarettes-and-their-safety/

Etter and Eissenberg, Dependence levels in users of electronic cigarettes, nicotine gums and tobacco cigarettes, www.ncbi.nlm.nih.gov/pubmed/25561385

Supporting smokers to stop

The Lancet RCT (Bullen et al)

http://blog.oup.com/2014/11/vaping-e-cigarettes-data/

www.mdpi.com/1660-4601/11/11/11220/htm

http://onlinelibrary.wiley.com/doi/10.1111/add.12429/abstract;jsessionid=863BF249B46B2EC5441E8B61F03DCA59.f01t04

www.smokinginengland.info/downloadfile/?type=latest-stats&src=11

http://test.guidelinesinpractice.co.uk/dec_14_ross_smoking#.VRlGuOFRr0w

Impact on compliance with smokefree law and policies

www.ashwales.org.uk/creo_files/upload/downloads/ash_wales_ph_bill_consultation_response_on_electronic_cigarettes.pdf