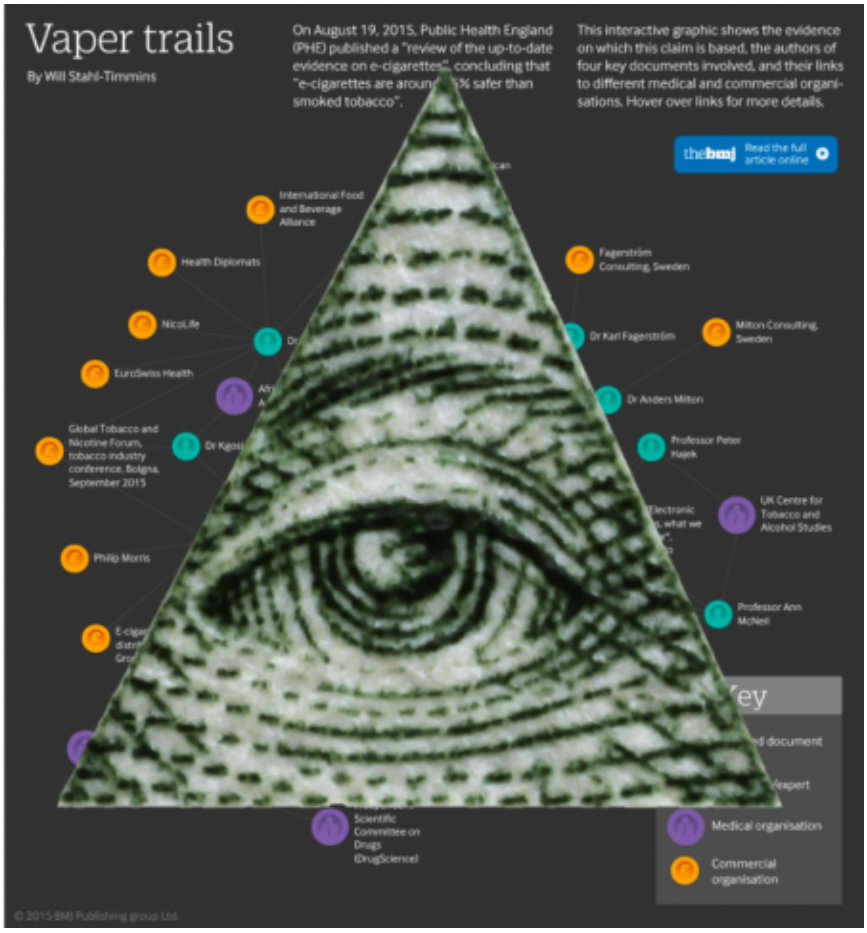
Smears or science? The BMJ attack on Public Health England and its e-cigarettes evidence review

written by Clive Bates | 5 November 2015



Who are the *Illuminati* of e-cigarettes? The BMJ investigates…

For doing what it should do and doing it well, Public Health England has been subjected to a frenzy of criticism from the public health establishment. What is going on…? *I'd like to make ten observations…* This commentary focuses on a BMJ news article: *Public Health England's troubled trail,* Nov 2015, but applies to other, similar coverage.

Introduction

PHE has been trying to help the public understand behavioural risks and so assist them in making informed choices. It commissioned an updated detailed evidence review on e-cigarettes designed to provide some proportionate and reasoned expert advice to consumers, health professionals and policy makers. It had a headline finding:

> *E-cigarettes around 95% less harmful than tobacco estimates landmark review – PHE media releases 19 August 2015*

Great – just the kind of clarity we need. The estimate was further elaborated by the lead authors of the evidence assessment, Ann McNeill and Peter Hajek, in an author's note. In the absence of straightforward guidance like this, consumers face a daily assault of misleading claims hyped up by academics seeking grants or notoriety and news outlets looking for click bait. This fog of confusion and contradictory messages can cause real harm – why should someone try to switch to vaping if they don't think it does them any less harm?

The establishment strikes back… For making this simple, reasonable and proportionate statement, PHE's work has been the subject of haranguing attacks by *The Lancet*, *The Guardian* and a pair of public health activists writing in the BMJ. Now the BMJ has followed up with an extraordinary frenzied attack on PHE aggravated by a highly misleading "info-graphic". I have been reflecting on this for some time and would like to draw out ten themes…

1. Playing the man: the descent into personal attacks at the expense of substance

The attacks on PHE's work concentrate largely on the provenance of one study of the 185 cited in the PHE review, and come in the form of *ad hominem* attacks on the intergrity of people involved. It's as though they believe an e-cigarette *Illuminati* are pulling the strings at PHE. This study, *Nutt et al, Estimating the Harms of Nicotine-Containing Products Using the MCDA Approach* employs a methodology for synthesising and quantifying expert views. The BMJ and Lancet have gushed faux outrage at the conflicts of interest declared by a minority of participants in this study (a normal feature of academic

publishing – see below) and then tried to use these to discredit the PHE assessment. They have even gone further with innuendo suggesting tobacco company involvement. I'm not sure what was unclear about this statement made by the funder and actually reported in the BMJ article:

> *"For the avoidance of doubt, I wish to confirm there was no tobacco company involvement in the funding or execution of the Nutt study."*

If the BMJ thinks this is a lie, it should just say so – but with evidence, not just innuendo.

Conspiracy theorists. And to provide the necessary innuendo, the barrel-scraping in this piece plumbs astonishing depths. The BMJ finds conspiracies everywhere – attending conferences, writing letters, agreeing with like-minded people, and, worst of all, having any sort of business – all marks of conspiracy in eyes of this new all-in-one witch-finder, inquisitor and executioner. It seems it hasn't occurred to them that there is a legitimate public health strategy for continuing nicotine consumers: the option to use a much lower risk product than cigarettes could save millions of lives, given there are 1 billion smokers in the world and rising and a billion deaths from smoking are predicted in the 21st Century.

Elementary error. Perhaps the most clumsy failing of all in the BMJ's report is that it simply hasn't understood what it is criticising. The PHE's lead authors, Professors Ann McNeill and Professor Peter Hajek, have no conflicts of interest whatsoever and come with unimpeachable reputations and great depth of experience. They didn't just rely on the *Nutt et al* study, they applied their own expert judgement to conclude that new evidence did not change the view expressed in the previous PHE evidence review, and that '95% lower' was a realistic estimate of relative risk, including an allowance for future uncertainty. In other words, the 95% figure *is McNeill's and Hajek's judgement,* and they were reporting that it coincides with what other experts expressed in other studies.

2. Exploiting the ambiguity of graphics: creating misleading connections between people

Did I mention that the BMJ's "info-graphic" is highly misleading? Why? Because it

gives no indication of the *strength* of influence on PHE's findings (zero to negligible for most of the elements in the graphic and the lines connecting them). Nor does it explain the ghostly mechanisms by which the pen-holding hands of Professors McNeill and Hajek were guided by the supposedly nefarious forces laid out in this diagram. Graphics are potent tools for smearing and innuendo. Why? Because the meaning of a connecting line on a graphic is highly ambiguous. Does it mean "A is under the pay and influence of B" or "A and B know each other and have some common views"? If you are in the smearing business, that ambiguity is useful.

3. Failure to examine the underlying science: is the PHE 95% relative risk estimate actually reasonable?

Given the Lancet and BMJ are the giants of UK medical publishing, might we have expected them to take a *scientific perspective* and look into whether the 95% claim is actually realistic? They didn't bother with this at all.

In fact, there has been an interesting debate about whether this figure is right or not and if it has been expressed with the proper nuances, *but not in the BMJ or Lancet*.

But here's the thing: most of the legitimate concern is that this estimate *overstates* the residual risk of 5% and that a range should have been given, rather than a point estimate. This is because no likely pathway for serious disease has so far been established and it is quite possible that e-cigarettes will be 99% or 100% less risky than smoking. I've discussed this at greater length here: Public Health England says truthful realistic things about e-cigarettes. Based on what is known of the constituents of e-cigarette vapour and that many of the toxins in cigarette smoke are simply not detectable or only present in very low concentrations, a better formulation could have been:

> *…e-cigarette use is likely to be at least 95% lower risk than smoking cigarettes*

But somehow I don't suppose PHE's detractors were worrying that they'd overstated the risks. Did the BMJ or Lancet provide any insight or reflection on these figures or on the proper formulation of a message useful to the public? No

and no.

4. Failure to acknowledge the problem PHE is tackling: widespread misperception of e-cigarette risks compared to smoking

Neither the BMJ or Lancet engaged with the rather serious public health issue at the heart of this. That is that many smokers believe e-cigarettes to be no less harmful than smoking and many more have no idea what the benefits of switching from smoking to vaping would be. McNeill and Hajek express this at Section 8 p.57-62 of their review. Choosing one example:

> *in the 2015 ASH Smokefree GB adult survey, 2% thought that EC were more harmful than cigarettes, 20% equally harmful, 52% less harmful, 2% completely harmless and 23% did not know*

So only about half of adults think that e-cigarettes are less harmful than smoking – that's a *terrible* misalignment of reality and risk perception. But even that doesn't convey the full awfulness of this situation because "less harmful" can mean 3%, 20%, 46%, 75% or 98% less harmful. Only one of these is approximately in the right ball-park – the last one. "Less harmful" is a meaningless perception unless some sense of magnitude is included with it. So PHE, quite properly, wanted to give the public and professions a realistic 'anchor' for risk perception so that they can make informed choices about smoking or vaping. Without that, these false risk perceptions may be keeping people smoking who would otherwise benefit from switching to vaping.

Did the BMJ or Lancet acknowledge this problem? Did they show any concern that more people might be smoking as a result? Did they suggest creative ideas for how it might be addressed? No, no and no. I was left with the impression they couldn't care less about the possible harm disinformation does to smokers.

Have the BMJ or Lancet examined whether *they* might be making this problem worse? Firstly by the poor science and ideological commentary they are prone to publishing (eg. here and here for two of many examples) and secondly by their efforts to undermine PHE's work to put the situation right?

No, they haven't. They've shown no sign of any reflection or the faintest grasp of their own possible role in harming smokers, misleading the public and protecting the cigarette trade.

5. Inappropriate dismissal of quantified estimates: these are useful to help people anchor risk perceptions

The indignant reaction to the use of a quantified expert estimate of risk was ridiculous. It's hardly unusual in public health to use numbers based on expert judgement to give the public some 'anchors' to guide behaviour and inform choice. This is exactly what quantified guidelines for alcohol, salt, sugar and BMI are supposed to do. I haven't seen any complaints from the BMJ and Lancet about these – but there is far less evidence and principle to support these numbers than PHE's e-cigarette relative risk guideline. Just a theory, but maybe the public health establishment is more at ease with *restricting* people with limits than *empowering* them with informed choice.

6. Hypocritical and abusive use of conflict of interest disclosure: it is for transparency, not disparagement

What is especially troubling about The Lancet and BMJ coverage, is that their editors *know* the purpose of conflict interest (COI) disclosure: it is for *transparency*. It is not for automatically discrediting any work done with a declared COI. If these journal editors rubbished every study that had a declared COI, the BMJ and Lancet would have little left to publish.

Case study. One example serves: *The Lancet Respiratory Medicine* published *Cardiovascular and neuropsychiatric risks of varenicline: a retrospective cohort study*, on 6 September.

Varenicline is marketed as a smoking cessation aid branded as Champix or Chantix and manufactured by Pfizer. But this is a controversial product, to say the least. In some jurisdictions it carries 'black box' warnings imposed because of regulators' concern over uncertainty about suicide or cardiovascular risks and many users are convinced, rightly or wrongly, that it has deeply disturbing side-

effects. The COI declaration reads:

> *DK has received an unrestricted grant from **Pfizer** for a smoking cessation trial outside of the submitted work and is supported by a research grant from the Ministry of Innovation, Science and Research of the German Federal State of North Rhine-Westphalia. RW has received grants, personal fees, and non-financial support from **Pfizer**, GlaxoSmithKline, and Johnson & Johnson, and personal fees from Novartis, outside of the submitted work. OCPvS has received an unrestricted research grant from **Pfizer** outside of the submitted work. The manufacturers of varenicline and bupropion were not involved during any stage of this project. (emphasis added)*

These COI relate to the manufacturer of the actual drug under examination for controversial side-effects – a much more direct link than any of the tangential and remote competing interests used to smear the PHE evidence assessment. However, it's a good study, at least as far as I can tell, undertaken to a high standard by experienced and credible researchers, and it contributes a valuable body of evidence that could ultimately provide better information for regulators and to smokers.

Hypocrisy and hype. It is not my purpose to discuss the Varenicline controversy here. *It is my purpose* to point out that despite this controversy and the declared COIs, the Lancet did not produce an excoriating editorial about this paper, did not rubbish the findings, did not mobilise critics of Varenicline or Pfizer, and did not attack the authors with innuendo, simply because some of them had declared a COI with manufacturer of the drug. *And that's as it should be*. Articles should be peer-reviewed, subject to editorial scrutiny and debated on their merits, with COIs declared so readers are aware of the provenance. This is normal practice in academic publishing.

But to me this illustrates rank hypocrisy about COI at The Lancet and BMJ – they must have known they could play that conflict-of-interest card in the popular press and it would be hyped up as some kind of malpractice or shady influencing. And so it was. Here is the Daily Mail's thoughtful treatment of the issue after the Lancet's article:

> *E-cigarette industry funded experts who ruled vaping is safe: Official advice is based on research scientists in the pay of manufacturers*

This is completely absurd hype. But it was entirely predictable given the way the Lancet played it first and then the BMJ has subsequently.

7. Bias and imbalance: selective quoting and inadequate scrutiny of PHE's critics

Neither the BMJ or Lancet presented the slightest challenge the critics of PHE, or reflected on the weakness of their own positions. It took former editor of the BMJ, Richard Smith, to make the point in his blog: *How public health moralists are promoting harm from tobacco and helping the tobacco industry*. He criticised 'public health moralisers' and pointed to an article by Professors Martin McKee and Simon Capewell in the BMJ in which they sound off against PHE, e-cigarettes and harm reduction. As Smith puts it:

> *The immediate and unthinking negative reaction to the idea of promoting e-cigarettes for those unable to stop smoking—illustrated by a recent piece in The BMJ —is short sighted. […]*
>
> *The moralisers who react instinctively against e-cigarettes may not only be harming those who find it impossible to stop smoking but also helping tobacco companies.*

I agree with him. But did the BMJ or Lancet look at the track record of these two, who seem to have played such a role in the attacks on PHE? For example, did they see these ugly and thuggish attacks on ordinary members of the public here and here and conclude that some balance might be wise? No, they have been acting as cheerleaders for this tendency.

8. Unaccountable sources: reliance on anonymous hostile briefing by public officials

A tiresome journalistic technique was used to make the case against PHE. The BMJ just went around finding enemies of PHE and allowed them to spout their ill-informed views onto the pages of the journal without the slightest challenge or balancing comment. It is a one-sided 'hatchet job' utterly devoid of objectivity, and the BMJ poorly serves its readers by inflicting this on them.

The worst example of this is the large chunk of the piece that rests on the views of one anonymous director of public health, which I will now examine. It starts with this:

> *A director of public health in north west England, who spoke to The BMJ on condition of anonymity, said he and his colleagues in the region have found PHE's stance on e-cigarettes "problematic on a number of levels," not least of which was the lack of consultation with public health professionals on the ground.*

Why anonymous? Who is this public servant and why is he excused personal accountability *in a scientific journal*? PHE commissioned an *evidence review* not a talking shop, and in any case why would "public health professionals on the ground" know anything? They've been mostly hostile to e-cigarettes, and with notable exceptions, they have failed to engage with smokers and vapers.

> *One of the key issues, he said, was that e-cigarette fluids "have a wide variety of formulations, many of which are untested and not formulated to any specific safety regulations. We're not talking about a unitary product, so to claim safety for something as diverse and as unregulated as e-cigarette fluid is just not operationally or scientifically credible."*

He's talking bilious nonsense. No-one has tried '*to claim safety*' or that all products are '*unitary*', only that risks need to be put in context relative to cigarettes – and that the relatively simple constituents of e-cigarette vapour cannot pose other than a tiny fraction of the risk of smoking. Did the BMJ not notice that this absurd *non-sequitur?* Or perhaps this sort of quote is okay to go unchallenged as long as it makes the point the BMJ wants to make? He goes on undaunted:

> *Furthermore, "in looking only at the risk and benefits of e-cigarette use to smokers, and failing to consult the field, PHE has overlooked predictable though unintended consequences which raise risks of enabling emerging new routes to nicotine addiction in young people through normalisation."*

More baseless assertion from someone who has failed to look at the evidence. But is there somewhere he could have found the evidence? Yes! In the PHE

evidence review, which is designed to help people like him acquaint himself with evidence rather than hype. Here is what the PHE evidence review (p.38) said:

> *…there is no evidence to date that EC are renormalising smoking, instead it's possible that their presence has contributed to further declines in smoking or denormalisation of smoking. The gateway theory is ill defined and we suggest its use be abandoned until it is clear how it can be tested in this field. Whilst never smokers are experimenting with EC, the vast majority of youth who regularly use EC are smokers. Regular EC use in youth is rare.*

No challenge from the BMJ or balancing view of course. So the anonymous ~~ranter~~ director of public health from the North West ploughed on undeterred by any challenge:

> *The PHE guidance also threatened to undermine the work by public health officials who "have spent the past 18 months persuading public venues, council buildings, and others to agree to ban e-cigarette use in enclosed public spaces," he said.*

Oh, I loved that one… he is peeved that scientific evidence has intruded on his prohibitionist and illiberal plans. No challenging rejoinder was put to him by the BMJ: *maybe bans on vaping in public places are not supported by the evidence* – the point *not* put to him by the BMJ. So he keeps digging…

> *The crucial debate about the potential roles of e-cigarettes in renormalisation of smoking or as a possible gateway to smoking remains unresolved. However, although the latest figures from the Health and Social Care Information Centre show that in 2014 the proportion of 11-15 year olds who had ever used cigarettes (18%) was at its lowest level since the survey began in 1982, more than a fifth (22%) had used e-cigarettes at least once.*

A textbook self-immolating quote. Vaping rises and smoking falls to the lowest ever level: how does that square with 'renormalisation' and a 'gateway effect'? The utter lack of balance and extreme bias in this article somehow blinded the BMJ from dismissing him or mocking his claim. And there's more:

> *This cohort, said the director, "may now be treating PHE guidance as a 'green*

> *light.' Yet for them there is no 'safer'; there is only a new risk and increased ongoing risk of a new addiction." The PHE advice "seems to risk being an iatrogenic public health intervention for this younger population."*

He clearly knows little about young people, smoking, vaping or the independent risk factors that cause both smoking and vaping. The question that should always be asked when a young person is using an e-cigarette is "what would they have done in the absence of an e-cigarette?" The answer is usually "smoked cigarettes". He doesn't seem to have thought of the question. Oh, and the word "iatrogenic" [harm caused by treatment] is just trying to make something dumb sound clever. What exactly is the problem with young people having better information and a more realistic perspective on risk?

This anonymous public servant is an appalling and clueless amateur who should lose his job. For no reason, he has been protected by the BMJ granting him anonymity, for the noble purposes of attacking PHE with half-baked, unchallenged opinions.

9. Activism rather than objectivity: are BMJ and Lancet becoming protagonists and losing their neutrality?

In response to a piece of especially poor journalism published in (where else?) the BMJ in June, Professor Robert West responded to the BMJ dividing the protagonists in the e-cigarette debate into the following four categories:

1. *Public health activists and bodies who are not experts in the field of tobacco control, who misunderstand what is relatively complex evidence and present their misunderstandings to the wider community.*
2. *Vapers, many of whom have no financial conflict of interest but feel passionately that a solution to the problem of stopping smoking that they have found should not be vilified or discouraged through mis-representation of the evidence*
3. *Vested interests, including the tobacco industry, and their supporters*
4. *Tobacco researchers and NGOs that have been working tirelessly in the field for decades and have achieved the considerable amount of*

progress …

It's a neat categorisation. Sadly, it has become clear that the first category, which includes McKee and Capewell, apparently also includes journal editors, including the BMJ and Lancet.

Let's me put it out there: these activists have *nothing* worthwhile to say on the subject of e-cigarettes. They conduct no research, have no useful insights, don't understand most of the studies they cite, mistake implausible theories for fact, never speak to smokers or vapers (other than to insult them) and they are clueless about business, markets and consumers. Most of their efforts (if they were effective at all) would indirectly promote smoking and the cigarette trade by sowing fear and confusion about e-cigarettes, an alternative to smoking that many smokers have found to work. See *Big Tobacco's Little Helpers* for David Sweanor's take on this kind of activism.

The activists do not see it as their role to make careful assessments of the evidence and communicate it to the public in a way that can be easily understood. They are involved in a *campaign* against a particular pathway out of smoking – it happens to be an empowering pathway for consumers but disempowering for them. It doesn't meet their approval because it is an affront to their assumed authority and relies on things they despise: – entrepreneurs, innovation, consumer choice, lightly regulated markets – rather than coercion, control, and state intervention. You shouldn't go to a doctor for financial advice, and you shouldn't read the BMJ for insights into consumers, markets, innovation and business.

10. A new 'scream test': why has PHE's claim created such consternation?

An especially bumptious (here) Australian academic has coined the term scream test ("*the louder tobacco companies scream, the more impact we know a measure will have*") to help him decide which tobacco policies must work. I guess that's easier than actually evaluating policies.

I think a similar scream test works for the anti-harm-reduction activists and it was passed in spectacular fashion by the claim that e-cigarettes are 95% less risky

than smoking – *they hated it, and moved to red-alert status*. Why? I can only speculate, but I think they believe in their own authority: that everyone should do as they are told, and quit smoking completely or face a miserable life and lingering death – quit or die, submit or succumb. E-cigarettes offer a third alternative that empowers the user, and they *really* don't like that. So the response has been to throw up a blizzard of distracting hype and spin to conceal the awkward truth that technology might be starting to deal with smoking without their involvement and without relying on their traditional toolkit of punitive and controlling measures.

More questions not asked. There is an interesting story behind the screams from the public health establishment. Why are they *so* threatened? Why *so* obsessively against people having good actionable information? If e-cigarettes are a disruptive technology, is it the creaking public health mafia that is being disrupted? A curious, objective and challenging journal would pursue these questions, *but not the BMJ or Lancet*.

Why are these activists like this? Their motivation is ugly – you can read Mike Siegel's speculation on it here. Carl V Phillips arguments here and here. My own attempt to grasp what drives them is buried in a briefing: I reproduce it here.

Here are several possible explanations:

- **Not invented here**: the products and harm reduction benefits have emerged through the free play of producers and consumers in a lightly regulated market. No one in public health has given their approval or been asked for it, no public spending is required and public health organisations have no controlling influence.
- **Hostility to the private sector:** culturally, the public health establishment is inclined to paternalism, and state-based or not-for-profit interventions. It instinctively distrusts the private sector and capitalism. It is ill at ease with the idea of consumers as empowered agents.
- **Countercultural:** the toolkit of tobacco control is replete with coercive measures: restrictions penalties, (regressive) taxes, fear-based campaigns, medicalisation of smoking and so on. Harm reduction approaches are non-judgemental, 'meet people where they are' and allow them to judge their own interests and preferences.
- **Undeclared motives:** some in tobacco control have a 'non-smokers'

rights' orientation, rather than 'population health' orientation, and these have different implicit objectives. As with any issue that involves a recreational drug, there are prohibitionist instincts at work, there may be affronted authority figures ('doctor knows best') and those with concerns about bodily purity[1].

- **Conflicts of interest:** public health academia, science, and advocacy is beset by ideological biases, prior positions to defend, funders' interests to respect, charities' declared policy positions, pharmaceutical funding, and highly prone to insularity and group-think.
- **Tobacco industry focus:** many activists and academics have defined their fight as with the tobacco industry and assume what is harmful to them is beneficial to health. This leads to lazy and muddled thinking in the area of tobacco harm reduction – and the possibility that smokers or vapers will be discarded as collateral damage in their battle with the industry.

Not all individuals or organisations involved exhibit all or any of these characteristics, but they are drawn out here to emphasise that it is not safe to assume that *anyone* with a public health profession or remit to protect health is actually acting rationally in the interests of health.

[1] See for example discussion by Alderman J, Dollar KM, Kozlowski LT. Commentary: Understanding the origins of anger, contempt, and disgust in public health policy disputes: applying moral psychology to harm reduction debates. J Public Health Policy 2010; 31: 1–16. [link]

Other writing on this

- Konstantinos Farsalinos Why academic journal attacks on Public Health England e-cigarette report should be completely ignored
- Chris Snowdon RIP BMJ
- Dick Puddlecote Good work agent Gornall