National Addiction Centre, Addictions Department
Institute of Psychiatry, Psychology & Neuroscience
King's College London.
Addiction Sciences Building,
4 Windsor Walk,
Denmark Hill,
London SE5 8BB

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To Select Committee on Tobacco Harm Reduction

McNeill Additional Comment to the Australian Select Committee on Tobacco Harm Reduction

I read the submission by Prof. Chapman, Prof. Daube and Prof. Peters, and would like to address some inaccuracies therein which pertain directly to my work.

1. P9 " (2020) Public Health England '*The data presented here suggests that vaping has not undermined the declines in adult smoking'.* Note that they presented no evidence that vaping, endorsed by PHE and widely promoted, had accelerated the decline in smoking in the UK. This is to our knowledge the first time that PHE has taken such a lukewarm position on the impact of vaping on smoking rates."

   My response: Each year in our evidence updates, we focus on different topic areas and in our last report (McNeill et al, 2020) we focused in particular on smokers who are pregnant or who have mental health problems. We did not include an analysis of the impact of vaping on smoking prevalence and it would be very inappropriate to eye ball the data and make a statement about causality. We did examine the impact of e-cigarettes on cessation in our 2018 report (McNeill et al, 2018) and commented '*While caution is needed with these figures, the evidence suggests that e-cigarettes have contributed tens of thousands of additional quitters in England.'* Further studies have been published since then that would reinforce this statement and we will be updating this evidence in our forthcoming 2021 report.

2. P10 "*Relapse to smoking is very prevalent. (A UK 15 month follow-up of vapers found that overall 39.6% had relapsed to smoking, with those using tank systems faring worst (45.6%).)"* This is misleading in a number of ways. Rather than go into the details, I copy here the conclusions of the study (Brose et al, 2019), but would be happy to provide further information if required: *"In a group of ex-smokers who had stopped smoking for at least 2 months, relapse to smoking during a 15-month follow-up period was likely to be more common among those who at baseline vaped infrequently or used less advanced devices".*

3. P20/21 Section entitled *"Are e-cigarettes much less dangerous than cigarettes?"*
   I would like to bring to your attention this statement which explained the 95% in

more detail and was published as an addendum to our 2015 report: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/456704/McNeill-Hajek_report_authors_note_on_evidence_for_95_estimate.pdf (McNeill & Hajek, 2015). Thus our estimate was consistent with the Nutt study but was not based on it. Our decision to use the estimated 95% figure was to communicate to smokers the sizeable reduction in risk posed by e-cigarettes compared with tobacco cigarettes in order to encourage them to switch.

We reviewed new evidence on potential health risks of e-cigarettes in our 2018 report (McNeill et al, 2018), including in our cessation chapter evidence from randomized controlled trials of adverse effects. In the safety chapter, we drew on evidence of adverse events from our Medicines & Healthcare Regulatory products Agency Yellow Card reporting system, and assessed key safety concerns according to animal and cell studies, studies of the chemical composition of the e-cigarette aerosol, and studies of toxin intake and vaping effects in vapers. We included a detailed analysis of four candidate biomarkers of exposure, concluding: "*Biomarkers of exposure assessed to date are consistent with significant reductions in harmful constituents and for a few biomarkers assessed in this chapter, similar levels to smokers abstaining from smoking or non-smokers were observed*".

In our conclusion, our decision to use 'at least 95%' reflected the fact that this was not intended to be a precise estimate but a communication directly to smokers (as done in many other fields such as calories, units of alcohol). Indeed the quote at the top of page 21 that Prof Chapman used is correct "*to communicate the large difference in relative risk unambiguously so that more smokers are encouraged to make the switch from smoking to vaping".*

We are carrying out a comprehensive review of the health effects of vaping for our 2022 report, and until then I would prefer not to comment on the relative risks of smoking and vaping. However, I have seen little evidence to contradict that estimate.

Finally, it is interesting that in that section Prof. Chapman and colleagues did not mention the US NASEM (2018) report which had a very similar conclusion to our reports, commenting: "*Laboratory tests of e-cigarette ingredients, in vitro toxicological tests, and short-term human studies suggest that e-cigarettes are* ***likely to be far less harmful*** *than combustible tobacco cigarettes"*

I have restricted these comments to those made concerning my work. Please note I have not addressed various other inaccuracies in the statement. I hope this is helpful and I should be happy to provide further information if needed.

Ann McNeill, Professor of Tobacco Addiction
Vice Dean (Culture, Diversity & Inclusion), Institute of Psychiatry, Psychology & Neuroscience, King's College London

References

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