

QoN 014-09

Please indicate if you agree or disagree with the following statements, made by Adjunct Professor John Skerritt of the Therapeutic Goods Administration, during the inquiry's public hearing on

13 November 2020. Please state the reasons for your position.

1. *"I believe that smoking is more harmful than vaping but that does not make vaping harmless - in the same way that being hit by a car on the freeway is less harmful than being hit by a truck but it is not desirable."*
2. *"In the same way that we didn't know in 1960 about the long-term effects of cigarettes, because vaping, especially at a significant level, is still a relatively recent phenomenon, the evidence is still fairly scant. However, there are a number of studies published in the medical literature...that have shown detrimental effects from vaping of nicotine cigarettes and also detrimental effects even when the e-cigarettes do not have nicotine, because many of the substances in e-cigarettes were never really intended to be heated up and put into the lungs."*

Response: 1. Agree. Consider this: let us assume that vaping eventually turned out to be (as a hypothetical example) 90% less dangerous to health than tobacco smoking, Then let's apply that to the current annual global mortality attributable to smoking. The WHO puts this at 8 million a year. This would mean that if all smokers switched to vaping (an entirely fanciful notion) that e-cigarettes would still kill 800,000 people year. If any putatively "curative" agent was killing 800,000 a year who used it, no civilised government would wave it through as an acceptable solution.

To the objection that surely 800,000 deaths is far preferable to 8 million, we need only interrogate the evidence as we did in our submission to, to ask whether the net contribution of e-cigarettes is to move more people out of smoking than it both holds in and attracts to it. The data we cited on high levels of relapse in vapers plus uptake of vaping by never and ex-smokers suggests, combined with tobacco industry efforts to oppose effective tobacco control policies, suggests that a helicopter view of vaping is one where its popularity is very much not a proxy measure of its public health impact. Longitudinal studies like PATH show it holds large numbers (dual users) in smoking and see many exclusive vapers relapse in the longer term. The uptake of regular vaping by teenagers who would have never used any form of nicotine is of additional concern.

Response 2:

We note the evidence of Prof Ron Borland when he stated that these products use pharmaceutical grade nicotine. This is true but as [AICIS has reported](#) they also contain industrial grade glycols and glycerine that are unsafe for inhalation and food flavourings or other additives that may be safe for ingestion but not for exposure to the huge surface that our lungs represent. Toxic metals exposure to the lungs is a further concern. All of the pathology changes associated with EVALI have been reproduced in experimental animals using NiChrome coils in the e-cigarette device and with liquid containing neither THC nor Vitamin E. (see <https://www.ahajournals.org/doi/10.1161/JAHA.120.017368>)

The best medium term safety data derive from assessment of the harms to lung health. After 2 years of use of a specific e-cigarette, Puritane, there was a 5% loss of lung function as

assessed by spirometry in health smokers with mean age of 35 ([Walele 2018](#)). This rate of lung function loss was more rapid than that [seen in a subset of smokers](#) with established COPD. That EC use causes increased rates of diagnosis and complications of asthma and COPD was confirmed in the recently published [State of the Art review](#) that used data from nearly 2 million subjects.

In our evidence, we highlighted the telling fact that no inhalable asthma or COPD drug (which unequivocally save lives) is flavoured. This is because no therapeutic regulatory agency would ever allow inhalable flavours in such preparations for safety reasons. Dow Chemical, a major supplier of propylene glycol, the most used liquid agent in vaping fluid says this about its inhalation

Health Information

Prolonged contact with propylene glycol is essentially nonirritating to the skin. Undiluted propylene glycol is slightly irritating to the eye and can produce slight, temporary conjunctivitis. Inhalation of propylene glycol vapors is not a hazard in ordinary applications. However, exposure to mists may cause eye irritation as well as upper respiratory tract irritation for some people.¹⁰ Therefore, exposure to mists of these materials should be avoided. In general, Dow does not support or recommend the use of propylene glycol in applications where inhalation exposure or eye contact with the spray mists of these materials is likely, such as fogs for theatrical productions or antifreeze solutions for emergency eye wash stations.⁴ Propylene glycol does not cause sensitization and shows no evidence of being a carcinogen or of being genotoxic.¹

<https://docplayer.net/51082632-Product-safety-assessment-propylene-glycol-based-low-temperature-thermal-fluids.html>

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With the average vaper inhaling vapourised PG, nicotine and flavouring chemicals 173 times a day, we can say that we have no data to call on about the long term consequences of such a practice. But no data does not mean there may not be harm occurring.

