



**Submission to the Northern Territory Select Committee on Electronic  
Cigarettes and Personal Vaporisers (Vaping) Inquiry**

By

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**About the submitter:**

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**Declarations:**

Dr Jongenelis has not ever received services, assistance, or support (whether monetary or non-monetary in nature) from the tobacco industry and/or e-cigarette industry.

Dr Jongenelis has not ever provided services, assistance, or support (whether monetary or non-monetary in nature) to the tobacco industry and/or e-cigarette industry.

Any opinions expressed are solely those of Dr Jongenelis and do not represent the views or opinions of her employer.

## Summary:

Thank you for the opportunity to make a submission to the Northern Territory's Select Committee on Electronic Cigarettes and Personal Vaporisers (Vaping) Inquiry. Preventing increases in the use of e-cigarettes, especially among young people, and minimising the harms associated with use should be public health priorities<sup>1</sup>. Although Australia's efforts to date have been largely successful in protecting public health policies from tobacco industry interference, e-cigarettes and other "smoke-free" products constitute a mechanism via which the tobacco industry is renewing its activities under the guise of creating a smoke-free world. Australia has always been, and remains, a world leader in tobacco control. We are continuing to pave the way by implementing effective, evidence-based policies. It is imperative that we adopt an evidence-based approach when it comes to e-cigarettes as these devices have the potential to undermine decades of effective tobacco control efforts that have produced a substantial decrease in the prevalence of smoking.

## Responses to the Terms of Reference:

*i. The current scale and trends of e-cigarette and personal vaporiser use in the Northern Territory, including amongst children and young people*

In Australia, use of e-cigarettes among adult smokers and non-smokers increased from 4% in 2013 to 11% in 2019<sup>2</sup>. Prevalence rates of use among adolescent and young adult non-smokers **more than tripled** over the same time period. These figures likely represent an underestimate of the true prevalence of vaping among youth, with a recent national study reporting rates of use that were much higher<sup>3</sup>. In terms of the type of products being used, a recent survey of Australian e-cigarette users found that 78% of 12- to 17-year-olds and 87% of 18- to 24-year-olds were using nicotine e-cigarettes at least monthly<sup>4</sup>. When asked to indicate the strength of the nicotine they used, a quarter reported that they did not know. Most adolescents and young adults were found to be using disposable and pod-based e-cigarettes. Such products are cheaper than other types of e-cigarettes<sup>5,6</sup>, and it has been suggested that their inexpensiveness is a potential risk factor for youth uptake<sup>7</sup>. Of further concern, the e-liquids in these types of e-cigarettes are typically nicotine-salt-based. The lower pH of these e-liquids reduces the harshness of the inhaled aerosol,

making the e-liquid highly palatable and easy to inhale<sup>8,9</sup> and resulting in more intense puffing and greater nicotine delivery<sup>10</sup>.

Given the potential risks associated with nicotine exposure in adolescence and young adulthood (see Section ii), these results indicate that most e-cigarette users within these population groups are at considerable risk of harm. In addition, the use of nicotine reported by adolescents supports evidence that these products are being sold in Australia illegally. Indeed, a quarter of adolescent vapers report sourcing their nicotine e-liquid from tobacco or vaping retailers, despite it being illegal to sell these products to minors<sup>4</sup>. ***This suggests that greater enforcement of laws regarding the sale of liquid nicotine is needed.***

E-cigarettes are part of Big Tobacco's product diversification strategy to offer new and novel nicotine delivery devices, especially those that have maximum appeal to young people. The rapid and substantial increase in youth use of e-cigarettes reflects trends seen in other countries and is likely attributable to the youth-appealing nature of e-liquid flavours and e-cigarette advertising<sup>11,12</sup>. The vaping industry continues to target adolescents and young adults via the development of new youth-oriented e-juice flavours (e.g., bubblegum, popcorn, Red Bull, fruit loops, Skittles, unicorn milk)<sup>13,14</sup>; the use of appealing e-juice packaging (e.g., cartoons on labels, e-juice boxes that resemble fruit juice cartons)<sup>15-17</sup>; the development of e-cigarettes that resemble USB drives, asthma inhalers, pens, remote controls, and hoodie drawstrings (thus promoting 'stealth vaping')<sup>18,19</sup>; and sponsorship of youth-oriented events<sup>13</sup>. In addition, there is research to suggest that ads for e-cigarettes feature themes (e.g., expression of identity, friendship, sex, attainment of social status) and use techniques (e.g., animation, cartoons, attractive and young protagonists) that have known appeal to youth<sup>20,21</sup>.

The vaping and tobacco industries need a new population of individuals to become addicted to nicotine to drive their profits<sup>22</sup>. The emergence of the vaping industry has the potential to undermine years of successful tobacco control in Australia, and ***action is therefore urgently needed to protect the Australian public from the activities of this industry.*** Ultimately, the goal

of the vaping/tobacco industries is the maximisation of sales and profits. If the vaping and tobacco industries' goal was to genuinely support smokers to quit and exit the market altogether, with no uptake by non-smokers, both industries would cease to exist within the next few decades.

*ii. The health impacts of the use of e-cigarettes and personal vaporisers*

Statements issued by Australia's Chief Medical Officer<sup>23</sup>, the National Health and Medical Research Council<sup>1</sup>, and numerous other Australian health organisations express significant concerns about e-cigarettes and endorse the World Health Organization's call for the precautionary principle to be applied when dealing with these devices. ***E-cigarettes are not harmless***; they have been found to contain a number of substances known to be harmful to health, including formaldehyde, tobacco-specific nitrosamines, nicotine, and heavy metals<sup>24-31</sup>. There are also significant health risks associated with their use including reduced lung function, stiffness of the arteries, and increased risk of cardiovascular disease<sup>32-39</sup>. In a recent review documenting the risks associated with e-cigarette use, the addictive nature of nicotine was highlighted<sup>40</sup>. This systematic review of the worldwide evidence on the health effects of e-cigarettes also found that among non-smokers, ***there is strong evidence that use of e-cigarettes has multiple health harms and no health benefits***. Uptake of use in adolescents and young adults is problematic given the impact of nicotine exposure on brain development<sup>41</sup>. However, the health risks associated with use are not limited to nicotine, with evidence indicating that the flavourings and other additives found in e-cigarettes are particularly harmful to health<sup>42</sup>. This is concerning given almost all Australian vapers use flavoured devices<sup>4</sup> and these ***harmful non-nicotine products remain legal in the Northern Territory***.

In addition to these direct health harms, there is consistent and compelling evidence indicating that e-cigarette use acts as a gateway to tobacco smoking. ***A recent meta-analysis concluded that non-smokers who use e-cigarettes are approximately three times more likely than those who avoid e-cigarettes to initiate tobacco cigarette smoking***<sup>43</sup>.

*iii. The efficacy of e-cigarettes and personal vaporisers in helping people to quit smoking*

Tobacco industry interference through the supply of misinformation about the potential benefits of e-cigarettes is considered a “present and real threat” to tobacco control efforts<sup>44</sup>. Although marketed by the vaping/tobacco industry as an effective smoking cessation tool, there is inconclusive evidence of the efficacy of e-cigarettes as quit smoking aids, with mixed findings reported in the literature<sup>29,45-49</sup>. In addition, there is evidence indicating that e-cigarettes may compromise quit attempts. Specifically, exposure to e-cigarettes has been found to significantly increase smokers’ desire and urge to smoke tobacco cigarettes<sup>50</sup>, and e-cigarette use has been found to be associated with cigarette smoking relapse/a return to smoking among former smokers<sup>51,52</sup>. ***Indeed, a recent meta-analysis found that former smokers who use e-cigarettes are more than twice as likely to relapse than former smokers who do not use the devices<sup>43</sup>, suggesting that e-cigarette use may drive former smokers back to combustible tobacco cigarettes.*** Finally, prevalence of ‘dual use’ is high<sup>53</sup>, with this pattern of tobacco use found to be the most common<sup>54</sup>. Such use does little to reduce the harms associated with tobacco use, with complete abstinence from smoking required to achieve health benefits<sup>55</sup>. While some dual users successfully quit smoking and switch to exclusive e-cigarette use, the majority transition to exclusive smoking<sup>56</sup>.

It is important not to be persuaded by anecdotal reports of individuals quitting smoking with the aid of e-cigarettes. The net costs and benefits of e-cigarette use must be assessed at the population-level. ***To date, this assessment indicates that e-cigarette use contributes to more population-level harms than benefits<sup>57</sup>.*** Furthermore, the use of e-cigarettes for smoking cessation may lead to permanent nicotine dependence if vapers are not supported to quit e-cigarette use<sup>58</sup>.

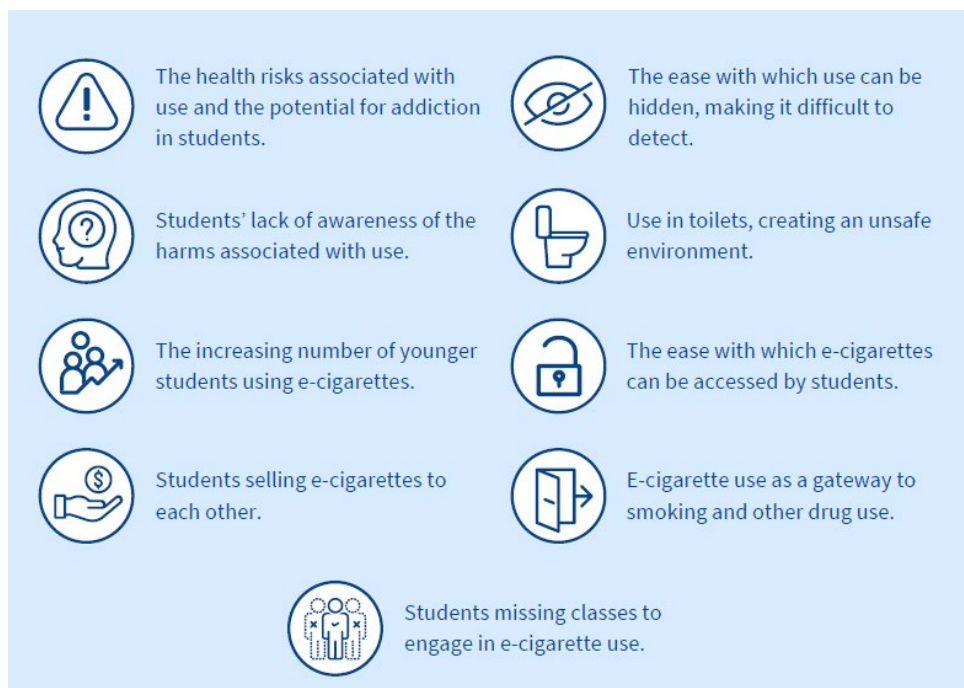
*iv. The approaches being taken to discourage uptake and the use of e-cigarettes and personal vaporisers, including but not limited to, in Northern Territory Schools*

In a recent national study of 218 secondary school principals and teachers<sup>59</sup>, 47% of all educators surveyed reported finding a student with an e-cigarette at least monthly (24% at least weekly).

Just over one-third (36%) of principals reported suspending or expelling students for e-cigarette possession or use at least monthly (12% at least weekly). Other key findings are as follows:

- 93% agreed that e-cigarette use is increasingly becoming a problem in Australian secondary schools.
- 60% reported that e-cigarette use on school property is becoming a moderate or very serious problem.
- 77% were moderately or very concerned about e-cigarette use by students at the school for which they work.
- 80% reported that addressing e-cigarette use was a priority.

Multiple concerns were raised by educators, including:



**Figure 1:** Educators' perceptions of e-cigarettes in Australian secondary schools. Full infographic available at [drmichellejongenelis.com](http://drmichellejongenelis.com).

Despite this, only 51% of those surveyed reported that their school had a vaping policy in place. The teachers and principals surveyed reported desiring education programs for students, staff members, and parents. They also desired the installation of vaping detectors.

***It should not be the responsibility of schools to manage the vaping crisis. Government-led policies that reduce the accessibility and availability of e-cigarettes must be introduced to reduce the burden being placed on education settings.***

*v. Best practice national and international regulatory responses to e-cigarettes and personal vaporisers.*

In the Northern Territory, non-nicotine products are able to be sold by retailers despite the harms they cause. ***This is an unacceptable regulatory framework in which the Territory operates.*** If you are to succeed in reducing e-cigarette use in the Northern Territory:

- (i) Non-nicotine e-cigarettes and related products must be prohibited from retail sale;
- (ii) Flavoured e-cigarettes and related products must be prohibited from retail sale; and
- (iii) The use of e-cigarettes and personal vaporisers should be prohibited in smoke-free areas.



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