Vaping

## **KEY STATEMENT**

The Australian College of Nursing (ACN) recognises the importance of evidence-based policy and practice in promoting public health and remains concerned about the rate of vaping in Australia.<sup>1</sup> ACN supports all measures to ban the importation of vapes and does not support the changes to legislation enabling the sale of nicotine vapes from pharmacies to anyone over the age of 18.<sup>2</sup> ACN advocates and commits to a concurrent strategy to develop and deliver public education campaigns to address health concerns and misinformation about the relative safety of vapes.

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## NOTE ON THE USE OF TERMINOLOGY

Electronic cigarettes and vapes are personal vaporising devices where users inhale vapour rather than smoke.<sup>3</sup> Therapeutic vapes are vapes containing nicotine or a zeronicotine substance, regulated as therapeutic goods.<sup>4</sup> Note that only those vapes that have been notified to the TGA as meeting TGA requirements can be imported. Adults will be able to buy vapes without prescriptions from 1 October 2024 while those under 18 years old will continue to need a prescription. Up until 30 September 2024, a medical or nurse practitioner must issue a prescription for nicotine or zero-nicotine vapes if clinically appropriate.<sup>5</sup> From 1 October 2024, anyone over 18 will be able to buy therapeutic vapes from a pharmacy without a prescription, providing the state and territory laws allow the sale.<sup>6</sup>

## BACKGROUND

Vaping continues as an evolving public health issue. Health experts, researchers, and authorities are working to ascertain the long-term health consequences. However, there remains a lack of longitudinal studies into the health effects of vaping any substance and therefore, the full risks remain unknown. What is known is that the promoted idea that vaping is a safe replacement for smoking<sup>7</sup> has led to the proliferation of non-therapeutic vapes that have targeted a variety of people who have never smoked.<sup>8</sup>

Vapes produce aerosols by heating a liquid into an aerosol (or vapour), which is then inhaled into the user's lungs. These contain solvents, flavourings, chemicals, metals, and nicotine, some of which are harmful or potentially harmful.<sup>9 10</sup> Furthermore, non-therapeutic vapes that do not list nicotine as an ingredient may still contain nicotine, which is highly addictive and can harm the still-developing adolescent brain, particularly in areas that control attention, learning, mood, and behaviour.<sup>11</sup>

Toxins of particular concern in vapes are metals, such as chromium, nickel and lead, and carbonyls, which include formaldehyde, acetaldehyde, acrolein, and glyoxal. Some of the known harms of vaping are the changes they cause in specific human cells that can lead to an increased risk of cardiovascular disease, cancer, and adverse reproductive outcomes. In adolescents who vape, there is an increased incidence of asthma, persistent cough, and wheezing.<sup>12</sup>

There are also reports of patients who, through vaping, have rapidly progressed to acute respiratory failure requiring intubation and mechanical ventilation. The effects of nicotine include adverse effects on the cardiovascular, respiratory, immune, and reproductive systems and impaired lung and kidney function.<sup>13</sup>

An estimated 7.0% of the population, or 1.5 million Australians, were reported to vape in 2022-2023, with people aged 18 to 24 most likely to vape.<sup>14</sup>

Based on trends from 2019 – 2022-23, vaping increased four-fold amongst people over 14 years of age.<sup>15</sup> Between 2020 and 2021, the number of calls to Australian Poisons Information Centres that were related to therapeutic and non-therapeutic vapes more than doubled. In New South



Wales in 2022, the NSW Poisons Information Centre received 365 calls related to e-cigarette exposure, a rate 11 times higher than that in 2016.<sup>16</sup>

As well as concerns about the potential health risks associated with vaping, there is the potential impact vaping may have on increased cigarette smoking rates.<sup>17</sup> There is strong evidence that vaping with nicotine enhances dependence on vapes. According to the 2022-2023 National Drug Strategy household survey, the proportion of vape usage rose from 2.5% in 2019 to 7.0% in 2022-2023.18 Compared to teens and young adults who have never smoked, those who vape reported significantly higher thoughts of trying cigarettes and higher intentions of smoking in the next six months than those who had never vaped.<sup>19</sup> Researchers discovered strong evidence to support the casual relationship between vapes and cigarettes.<sup>20</sup> The association between vapes and cigarettes persisted even when other characteristics, such as smoking susceptibility, peer pressure, and advertising exposure were considered.<sup>21</sup>

# ROLL OUT OF RESTRICTIONS ON THE SALE OF VAPES

Reforms to manage access to disposable vapes were introduced in 2023, with the aim of restricting the flavours and packaging designed to attract young people. The early reforms had limited impact on the accessibility of vapes and vaping products, with reports suggesting they were easy to obtain via tobacco outlets, vape shops, and online.<sup>22</sup> With shifting rules made in federal parliament mid-2024, the plan to ban vapes was modified with the Labor Government supporting a change proposed by the Greens to enable adults to purchase vapes through pharmacies without a prescription.<sup>23</sup>

As such, there is an increasing need to monitor public understanding of the complete and comparative harms of vaping and to support effective public educational campaigns such as those introduced by the Department of Health and Aged Care to address knowledge deficits.<sup>24</sup> This strategy includes targeting social media platforms where vaping is promoted and discussed.<sup>25 26 27</sup> These campaigns will help counter the discussions on social media, help inform the public about the dangers of the products, and support parents and carers providing effective support for someone who wants to quit. <sup>28</sup>

## **MENTAL HEALTH CONCERNS AND VAPING**

Children experiencing mental health issues were found to be more likely to vape. However, the use of vapes as a coping mechanism was found to worsen these symptoms when experiencing withdrawals.<sup>29</sup> More research is needed to evaluate the cause and effect of mental health issues and the incidence of vaping.

What is known is that young people suffering from depression, stress and/ or anxiety were more likely to begin vaping than those with no mental health issues. Additionally, for those suffering from depression who began vaping, long term use of vapes increased their symptoms. This same longer-term effect does not appear to apply to those experiencing anxiety.<sup>30</sup>

For those adolescents experiencing stress, vaping is viewed as a means of inducing a sense of calm and enabling them to feel good, thus encouraging longer-term use.<sup>31</sup>

ACN believes that for those young people who are vaping as a means to reduce depression, stress, and anxiety, two important actions must be taken:

- More research to recognise and understand the drivers of depression, stress, and anxiety for young people, which, in turn, will help develop a coordinated response to manage depression, stress, and anxiety effectively.
- Readily accessible support services to assist young people to quit vaping.<sup>32</sup>

The recent launch of the Australian Government's communications campaign targeting young people who vape is welcomed by ACN.<sup>33</sup> Support for young people addicted to nicotine will be essential to reduce reliance on illegally purchased vapes,<sup>34</sup> arguably a greater health threat than those purchased legally.<sup>35</sup> Readily available, non-judgemental support to help them address nicotine addiction is crucial.<sup>36</sup> Sound guidelines must be provided to medical and nurse practitioners who will be responsible for prescribing therapeutic vapes for those under 18 years of age.

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Given the clear link between mental health issues and vaping among young people, ACN recommends a multifaceted approach to address this complex issue. Firstly, we advocate for integrating mental health screening and support services within existing vaping prevention and cessation programs. This integration would allow for early identification of mental health concerns and provide timely interventions. Secondly, ACN recommends the development of specialised counselling services that address both vaping addiction and underlying mental health issues simultaneously. These services should be accessible to young people through schools, community health centres, and telehealth platforms. Thirdly, we propose the creation of peer support groups specifically for young people dealing with both vaping and mental health challenges, providing a safe space for shared experiences and mutual support. Additionally, ACN calls for increased funding for research into the relationship between vaping and mental health, mainly longitudinal studies that can better elucidate cause-and-effect relationships. Finally, we recommend the further development of targeted educational materials for parents, educators, and healthcare providers on recognising and addressing the intersection of vaping and mental health issues in young people. By implementing these recommendations, we aim to provide a more comprehensive and effective approach to supporting the mental health of young people who vape or are at risk of taking up vaping.

ACN recognises that while the evidence suggests that vapes are safer than smoking cigarettes, vapes are not safe and have been shown to harm the user.<sup>37 38 39</sup> A holistic approach that combines evidence-based medications, nicotine replacement therapy, and counselling provides a comprehensive toolkit for smokers aiming to quit, surpassing the uncertainties associated with vaping.

ACN does not support access to therapeutic vapes without a prescription nor without some level of support and advice. ACN stresses the need for vaping to be a considered part of a withdrawal program from nicotine reliance rather than as a recreational drug.

There is evidence that nicotine vapes can assist people to quit smoking.<sup>40</sup> Importantly, for those people addicted to nicotine, using vapes to access nicotine appears to have a less harmful impact on overall health than smoking cigarettes.<sup>40 41 42</sup> People often make several attempts at quitting smoking before being successful, and therapeutic vapes should only be considered as a treatment option for smoking cessation if other treatments have not been successful. For those health practitioners treating nicotine addiction, guidelines are available to assist with prescribing nicotine vapes,<sup>43 44</sup> such as the Royal Australian College of General Practitioners (RACGP) guidelines for health practitioners that provide treatment recommendations when vapes might be considered and the length of time for which vapes should be prescribed.

For those health professionals comfortable with recommending nicotine vapes, there are two critical factors to be aware of before prescribing therapeutic vapes:

- Nicotine vapes are regulated as therapeutic goods, meaning that they are only available at pharmacies with the aim of helping people quit smoking or manage nicotine dependence.<sup>45</sup>
- The legislation in the state or territory in which you prescribe takes precedence over the TGA. (These are evolving arrangements. Please check with your state or territory legislation.)

# EDUCATION AND DEVELOPMENT OF RESOURCES TO RAISE AWARENESS

The increase in the number of young people vaping is of concern. Educating parents, teachers, coaches, and other influencers of youth about the risks of e-cigarette use among young people should be used as a significant preventive method to control vaping.<sup>46</sup> This approach serves as a significant preventive method to control vaping. By equipping these key adults with accurate information and strategies to discuss vaping with young people, we can create a supportive environment that discourages the initiation of vaping.

Ensuring that all healthcare professionals know about the dangers and risks of vaping to children and young adults is another significant step in ensuring that emerging health issues are addressed and that healthcare workers are equipped to initiate and lead informed care interventions. Healthcare professionals are frequently asked many questions about the dangers of using vapes and whether these products can aid people in quitting smoking.

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Providing comprehensive resources for healthcare professionals to access, with detailed, recommended interventions and the effectiveness and safety of vaping to aid in quitting smoking, could help fill in the gap between the system and the community.<sup>47</sup> ACN advocates for the development and dissemination of comprehensive resources for healthcare professionals, including detailed recommended interventions and information on the effectiveness and safety of vaping as an aid in quitting smoking.

ACN advocates for support programs accessible to all young people to enable them to withdraw from vaping without taking up cigarette smoking.<sup>48</sup> Quitline is available to support those wanting support to quit vaping as well as cigarette smoking. Quitline's website offers information and advice about quitting vaping.<sup>49</sup> Further resources and accessible helplines can be found on the Department of Health and Ageing's *Going vape-free* website.<sup>50</sup>

ACN supports further development of essential multidisciplinary school-based education and support programs. To address vaping, these programs should engage students, educators, and families in a broader social, health, and education context. ACN encourages the expansion and evaluation of similar programs nationwide. While prevention is critical, it is also crucial to provide resources for those already vaping. ACN supports the expansion of accessible support programs for young people to enable them to withdraw from vaping without taking up cigarette smoking. The Quitline service, which offers information and advice about quitting vaping, should be promoted more widely. Additionally, ACN recommends the development of targeted programs specifically designed to support young people struggling to withdraw from vaping. For more information about withdrawal symptoms, available support services and tips to help people quit, access the Alcohol and Drug Foundations pages on vaping.51

To ensure the effectiveness of these education and awareness-raising efforts, ACN recommends ongoing monitoring of public understanding of the complete and comparative harms of non-therapeutic vaping. This monitoring should inform the development and refinement of public educational campaigns to address knowledge deficits and emerging challenges. Implementing these strategies requires a coordinated effort involving schools, healthcare providers, government agencies, and community organisations. ACN advocates for dedicated funding to support these initiatives and for developing best practice guidelines to ensure consistency and effectiveness across different programs and regions. By combining these various approaches, we can create a comprehensive education and awareness strategy that informs about the risks of vaping, empowers individuals to make healthier choices, and supports those seeking to quit.

### **PREVENTION STRATEGIES**

ACN recognises that preventing vaping uptake, particularly among young people, is crucial to addressing this public health concern. ACN welcomes the resources available on the Department of Health and Ageing's *Let's join the thousands quitting vapes* website.<sup>52</sup> We also advocate for a multi-faceted approach to prevention that includes comprehensive school-based education programs, targeted public awareness campaigns, and policy measures.

School-based programs should provide evidence-based information about the risks of non-therapeutic vaping and develop students' skills to resist peer pressure. Public awareness campaigns, leveraging both traditional and social media platforms, should counter misinformation about nontherapeutic vaping and highlight its potential health risks. These campaigns should be tailored to resonate with youth, parents, and other influential adults and should be developed with input from students and parents. ACN supports the stricter regulations on non- therapeutic vape marketing and accessibility, including the bans on flavoured products that appeal to young people and restrictions on online sales. By combining education, awareness, and policy measures, we aim to create a comprehensive prevention strategy that reduces vaping initiation rates and protects public health.

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### RECOMMENDATIONS

#### Targeted education for vulnerable populations

ACN seeks to collaborate with government-funded organisations to design and deliver preventative health education programs to empower those most at risk of nontherapeutic vaping, including children and young people, to make informed and safe choices when it comes to their health. This would support the *What's really in a vape*? video.<sup>53</sup>

ACN supports essential multidisciplinary school-based education and support programs to engage students, educators, and families in a broader social, health, and education context to address vaping.

#### Access to contemporary resources for nurses

ACN advocates for every nurse to have access to contemporary education in preventative health strategies specific to vaping and smoking cessation for individuals struggling with nicotine addiction or vaping addiction, using evidence-based addiction behaviour modification interventions.

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Date developed July 2024 Review date August 2025

CITATION:

Australian College of Nursing (ACN). 2024, 'Vaping a Position Statement', ACN, Canberra.

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Hardcopy ISBN: 978-1-922720-45-0

Electronic ISBN: 978-1-922720-46-7

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