# Perspectives on limiting tobacco access and supporting access to nicotine vaping products among clients of residential drug and alcohol treatment services in Australia

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# ABSTRACT

► Additional supplemental material is published online only. To view, please visit the journal online (http://dx.doi. org/10.1136/tc-2023-058094).

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Received 4 April 2023 Accepted 25 September 2023 Published Online First 11 October 2023 Introduction Tobacco endgame strategies aim to drive down population smoking rates, the success of which can be improved with public buy-in, including from populations with high smoking rates such as alcohol and other drug (AOD) service clients. This study aimed to explore acceptability of tobacco retail and nicotine reduction, and subsidised nicotine vaping to support AOD service clients following a smoking cessation attempt. Methods We interviewed 31 Australian AOD service clients who currently or previously smoked, following a 12-week randomised trial comparing nicotine replacement therapy with nicotine vaping product (NVP) for smoking cessation. Participants were asked how effectively three scenarios would support tobacco cessation: tobacco retailer reduction, very low-nicotine cigarette standard and subsidised NVP access. We thematically analysed participant views on how each approach would support tobacco abstinence. **Results** Tobacco retailer reduction raised concerns about increasing travel and accessing cigarettes from

alternate sources, with generally lower acceptability, though a range of perspectives were provided. Reducing nicotine in tobacco products was described as reducing appeal of smoking and potentially increasing illicit purchases of non-reduced nicotine products. Clients of AOD services were highly accepting of subsidised NVP access for tobacco cessation, as this would partly address financial and socioeconomic barriers.

**Conclusions** Australian tobacco control policy should consider how these approaches impact ease and likelihood of tobacco access by AOD service clients in relation to the general population. Understanding clients' acceptability of tobacco control and endgame measures can inform how to avoid potential unintended consequences for these clients.

#### INTRODUCTION

Tobacco smoking is a leading cause of preventable disease and health inequity. Tobacco endgame strategies aim to reduce smoking rapidly and permanently to minimal levels.<sup>1</sup> Because these policies address tobacco epidemic drivers—industry actions, product addictiveness and availability—they may be more effective across all population groups, including those experiencing social disadvantage, than traditional approaches. While there are still few examples of implemented endgame policies, the supporting evidence is growing.<sup>2</sup> Australia has

#### WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ People entering alcohol and other drug (AOD) treatment have higher tobacco smoking prevalence than the general population.
- ⇒ Approaches to supporting tobacco cessation and abstinence include access to nicotine vaping products, tobacco retail reduction and mandating a very low nicotine content cigarette standard to reduce addictive potential.

#### WHAT THIS STUDY ADDS

⇒ AOD service clients reported they were less accepting of retail density reduction and reducing nicotine content of tobacco products and were highly accepting of a subsidy to support nicotine vaping product access for tobacco cessation.

#### HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Australian tobacco control policy should consider how these three approaches impact ease and likelihood of tobacco and pharmacotherapy access among AOD service clients relative to the general population to anticipate and mitigate unintended disproportionate impacts.

an endgame target of 5% smoking prevalence by 2030,<sup>3</sup> with strategies including product (eg, nicotine content), consumer (eg, purchasing), supply (eg, retail) and institution-focused (eg, taxation) approaches.<sup>1 2</sup> Australia has enacted some of these, and continues making progress.<sup>4</sup> However, evidence gaps remain, particularly regarding how populations with high smoking prevalence will be impacted by these policies, such as those accessing alcohol and other drug (AOD) treatment. In Australia in 2021–2022, 131000 people aged 10 years and older received AOD treatment, primarily for alcohol.<sup>5</sup> This population is often overlooked with respect to the impacts of broadly implemented health policy.

Understanding AOD service clients' views on endgame policies is critical in policy design and delivery to mitigate potential unintended consequences for this population. Smoking prevalence in the general Australian population is approximately 11.2%,<sup>6</sup> while 84% of people in AOD treatment

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**To cite:** Trigg J, Rich J, Williams E, *et al. Tob Control* 2024;**33**:e192–e198.



smoke tobacco compared with 31% in matched non-AOD treatment samples.<sup>7</sup> People discharged from smoke-free residential AOD services tend to rapidly relapse to smoking,<sup>8</sup> <sup>9</sup> due to returning to pro-smoking environments and factors complicating tobacco abstinence (eg, stress).<sup>10</sup> The equity of endgame strategy impacts is then a critical concern for tobacco-related health disparities.<sup>11</sup> Not considering the views of such populations could lead to less effective or unintended effects of tobacco control approaches with AOD service clients.

Retail-focused measures that shape geographical access to tobacco are a key endgame policy approach. Tobacco retail outlet density is strongly associated with local smoking prevalence, higher smoking initiation and poorer cessation outcomes.<sup>12 13</sup> Modelling suggests that retail-focused endgame approaches (eg, restricting tobacco sales to liquor stores) can disadvantage priority groups (eg, low income).<sup>14</sup>

A review of endgame research with priority populations found supporting evidence for a mandatory very low-nicotine cigarette (VLNC) standard, but little research on supply reduction.<sup>15</sup> One study of people experiencing AOD dependence found that many wanted to learn more about VLNCs (69%), considered them safer than cigarettes (68%) and would try them (60%).<sup>16</sup> However, the research did not explore their views on making all cigarettes comply with a VLNC standard.

Another smoking cessation approach to consider in overall tobacco endgame strategy is access to lower-risk nicotine products such as nicotine vaping products (NVPs), as an option for those not ready to stop nicotine use. Regulations for their use in quitting smoking vary.<sup>17</sup> In the UK, Aotearoa and Canada, regulatory and health policies support NVP use in smoking cessation within endgame strategy,<sup>17–21</sup> and evidence supports their effectiveness for smoking cessation.<sup>22</sup> While not part of endgame strategy in Australia, NVPs are accessible for tobacco cessation via medical prescription,<sup>23</sup> and recent regulatory consultation supports their non-retail role as therapeutic goods.<sup>24</sup> Australian peak health bodies cautiously support NVPs as a last-line cessation approach, emphasising minimised use, given potential long-term risks.<sup>25</sup>

In Australia, prescription-restricted access to NVPs can hinder this tobacco smoking cessation route, as although these devices are not government subsidised, modelling suggests increasing NVP accessibility could help achieve Australia's 2030 5% smoking prevalence target.<sup>26</sup> Yet, there is no current consensus as to the benefits widened NVP access in Australia (eg, 27 28). Subsidised access is one approach discussed for increasing access by low-income populations.<sup>29 30</sup> Access to NVPs as a consumer product is part of some endgame strategies,<sup>19 31</sup> while other countries aim for a nicotine-free goal.<sup>32</sup>

Little research describes how people receiving AOD services view endgame strategies, and whether they feel such policylevel measures would help them maintain tobacco abstinence following discharge from treatment. We examined how AOD treatment service clients participating in a smoking cessation trial viewed three policies that could support a commercial tobacco endgame strategy: (1) reduced retail availability of tobacco products, (2) reduced nicotine content of tobacco products and (3) subsidised access to NVPs to support smoking cessation.

# METHODS

#### Study design

This qualitative study reports on phone interviews of clinical trial participants following a 12-week smoking cessation intervention. The trial intervention was pharmacotherapy (randomised

to combination nicotine replacement therapy (cNRT) or NVP) and behavioural support to quit smoking in people discharged from smoke-free residential AOD services. Participants received information on the risks, safety and benefits of all products in the trial, and the protocol is registered with the Australia and New Zealand Clinical Trials Registry (ACTRN: 12619001787178).<sup>33</sup> Our reporting follows Consolidated criteria for Reporting Qualitative research guidelines.<sup>34</sup>

#### Procedure

Participants were recruited to the trial before discharge from smoke-free residential AOD treatment. Eligibility included being aged  $\geq 18$  years and smoking  $\geq 10$  cigarettes per day prior to admission. Participants did not disclose ethnicity or First Nations status. We recruited a diverse selection of participants to ensure inclusion from NRT and NVP conditions, study sites and genders. We invited participants to a single interview about their tobacco cessation experience after 12-week follow-up for the parent trial.<sup>33</sup> Interviews were conducted by a population health behavioural scientist (JT) and a clinical trials and mental health researcher (JR) from Australia. Phone interviews were chosen to minimise discomfort from in-person discussion. Of the 98 trial participants called for an interview, 54 were contactable and 31 consented to this study after explaining participant involvement, confidentiality and interview topics. Interviews were held from March 2021 to June 2022. Minor incentives were provided in the parent trial,<sup>33</sup> and no incentives in this study.

#### **Interview topics**

This study relates to the final component of a 40-minute interview about tobacco smoking cessation (online supplemental appendix A). We asked participants 'How effective do you think the following measures would be for helping you to stay quit (from tobacco)?': (1) gradually reducing the number of places allowed to sell tobacco products to make them less easily available (endgame); (2) reducing the amount of nicotine in cigarettes and tobacco to make them less addictive relative to NVPs or NRT (endgame); and (3) subsidising access to NVP devices and e-liquids for those leaving AOD services (cessation). Responses were sought to check personal relevance and impact of policy changes that inform tobacco smoking and cessation. The NVP subsidy scenario was initially asked only for participants using this approach in the trial, although it was asked of some participants randomised to cNRT, when they had already expressed views on NVPs. All participants were asked about scenarios one and two. We note that NVP subsidy was asked about due to this not being available in Australia at the time, relative to subsidised NRT. A detailed comparison of cNRT versus NVP smoking cessation experience is given in a separate parent trial paper.

#### Analysis

Two researchers (JT, EW) coded verbatim-transcribed interviews in NVivo V.1.3, using coding reliability thematic analysis.<sup>35</sup> Transcripts were first read by both researchers with audio (JT, EW) (familiarisation), one then coded all interviews (JT), and a second (EW) cross-coded 58% of these initial codes. Agreement on content relevance was good ( $\kappa$ =0.65, agreement=97.1%), and analysis continued until coding researchers felt there was good relevant topic coverage. Responses to scenarios were coded according to participants indicating support or opposition for each approach to reducing tobacco use. Researchers coded themes from a critical realist perspective (generating themes), considering experiences real within participants' perspectives RESULTS

#### Participants

There was a 31.6% (31 of 98) response rate, with 61.3% (19 of 31) of participants using NVP and 38.7% (12 of 31) using cNRT in their quit attempt. More men (64.5%) were interviewed, and most participants lived in Victoria (61.3%), Queensland (29.0%) and New South Wales (9.7%), Australia. Non-interviewed participants had withdrawn involvement (n=1), disconnected numbers (n=12), declined follow-up (n=8), missed interviews (n=6) or had reached maximum call-back attempts (n=38). Participants' previous experience of occasional NVP use was slightly higher among those from NVP (52.6%, n=10 of 19) versus cNRT (33.3%, n=4 of 12) trial conditions. Participant data below

note their gender, age, cessation approach and reporting of any smoking (S) or non-smoking (NS) status at time of interview in parentheses. Further demographics are provided in table 1.

#### Views on tobacco endgame strategies and NVP access Limiting retail accessibility of tobacco products

An endgame policy that gradually reduced the number of retail locations permitted to sell tobacco products was not generally considered by participants to be an approach supportive of their tobacco abstinence. Interviewees felt they would find their own way to purchase tobacco products, and that this could place further pressures on them (eg, financial). Some participants also confused gradual tobacco retail reduction with a retail ban.

I don't think so, because [with] less places, there's still gonna be [other] places, or even illegal cigarettes. I think the effective way

Table 1	Participant demographic and substance use characteristics (n=31)								
ID*	Gender	Age†	Income/week†‡	Primary drug§†	Initial cigarette/ day¶†	Smokes**	Cigarette craving <sup>†††</sup>	Cessation method	Previous vaping‡‡†
P1	Male	39	\$401-500	Alcohol	25	Yes	Moderate	cNRT	Yes
P2	Female	49	\$201-300	Heroin	20	Yes	Strong	cNRT	Yes
P3	Male	30	\$301-400	Alcohol	30	Yes	No urge	cNRT	Yes
P4	Male	48	>\$500	Alcohol	40	No	Extremely strong	cNRT	No
P5	Female	52	\$301-400	Cannabis	25	No	Extremely strong	cNRT	No
P6	Male	51	\$401-500	Alcohol	40	No	Strong	cNRT	No
P7	Male	45	\$301-400	Methamphetamine	23	Yes	Very strong	cNRT	No
P8	Male	66	>\$500	Alcohol	12	No	Moderate	cNRT	No
P9	Male	29	\$301-400	Cannabis	20	Yes	Moderate	cNRT	Yes
P10	Male	59	>\$500	Alcohol	40	Yes	Strong	cNRT	No
P11	Female	71	>\$500	Alcohol	17	Yes	Strong	cNRT	No
P12	Male	34	>\$500	Alcohol	25	Yes	Extremely strong	cNRT	No
P13	Male	37	\$201-300	Alcohol	10	Yes	No urge	NVP	Yes
P14	Male	32	\$301-400	Alcohol	40	Yes	Strong	NVP	Yes
P15	Male	54	\$401-500	Alcohol	30	Yes	Strong	NVP	No
P16	Female	54	\$301-400	Alcohol	20	Yes	Slight	NVP	No
P17	Non- binary	41	\$401–500	Alcohol	10	Yes	Strong	NVP	Yes
P18	Male	52	>\$500	Alcohol	20	No	No urge	NVP	Yes
P19	Male	69	>\$500	Alcohol	15	No	Don't know	NVP	Yes
P20	Female	48	\$301-400	Alcohol	25	No	Strong	NVP	Yes
P21	Male	52	>\$500	Alcohol	15	No	Extremely strong	NVP	No
P22	Female	47	\$401–500	Heroin	17	No	Moderate	NVP	Yes
P23	Male	30	>\$500	Alcohol	18	No	Strong	NVP	No
P24	Male	43	Unknown	Alcohol	12	No	Moderate	NVP	No
P25	Female	38	>\$500	Alcohol	15	No	Very strong	NVP	No
P26	Female	60	\$301-400	Alcohol	20	No	Strong	NVP	No
P27	Male	39	\$201-300	Alcohol	20	Yes	Extremely strong	NVP	No
P28	Male	48	>\$500	Alcohol	15	Yes	Strong	NVP	Yes
P29	Female	57	\$301-400	Alcohol	20	No	Very strong	NVP	Yes
P30	Female	49	>\$500	Alcohol	35	Yes	Very strong	NVP	Yes
P31	Male	66	>\$500	Alcohol	40	Yes	Strong	NVP	No

\*Participant numbers are used to support deidentification.

†Reported in the trial baseline survey.

#Weekly net income.

§Primary substance for residential AOD treatment.

 $\ensuremath{\mathbb{R}}$  Cigarettes per day is defined as the usual amount smoked when able to smoke.

\*\*Any use of cigarettes reported at interview, including reduced use.

t+Craving to smoke was self-reported as no urge, slight, moderate, strong, very strong or extremely strong.

**‡**Previous vaping referred to any use of NVPs prior to 1 month before trial participation.

AOD, alcohol and other drug; cNRT, combination nicotine replacement therapy; NVP, nicotine vaping product.

is, I guess more taxes. But then that's gonna make people spend even more, and I don't know if that's the best way to do it. (P1, M, 39, cNRT, S)

No, it's just gonna make me have to travel further on public transport to find tobacco products... prohibition does not work. (P15, M, 54, NVP, S)

However, a participant felt reducing retail availability did not go far enough, and cigarettes should be completely removed from sale.

I think the best thing the government could do [is] ban cigarettes. I mean, get rid of them... If they weren't available for sale that would be the number one best thing the government could do. (P4, M, 48, cNRT, NS)

Participants indicated that the quantity they smoked factored into whether they would seek alternate ways of accessing tobacco if retail density was reduced. Some acknowledged that their efforts to mitigate retail changes posed problems; some highlighted the potential impact on maintaining abstinence beyond discharge.

I'd be pretty p\*\*\*\*d off if I was smoking and I had to travel to get cigarettes... I mean if I'm off cigarettes, it would be helpful not to have access to them—there's the chance of binge access. (P28, M, 48, NVP, S)

Interviewees were aware that they would be exposed to the tobacco products still readily available across various retail environments they use, with some being particularly problematic, such as accessing home delivery on impulse. However, their views indicated that they felt that retail-focused approaches could support tobacco abstinence.

I know each time I go to the supermarket, you walk past the cigarette cabinet, and it does remind you.... So, that will always be there, unless they change... where they sell them. (P8, M, 66, cNRT, NS)

The potential to circumvent retail-focused strategies by using delivery services or travelling further to access retailers was described by some participants.

There's always gonna be somebody that'll bring 'em to you, or whatever.... Which is really awful, I think. That was so bad for me during lockdown. That (delivery) really should be regulated much better. (P26, F, 60, NVP, NS)

[At] the servos, your papers and stuff were three times the price, your filters were double the price... you know. [I'd] walk two blocks, get on a bus, take a bus trip [to save money], rather than walk a block and a half to the service station. (P22, F, 47, NVP, NS)

Reducing tobacco retailer density was generally met with some scepticism by participants, as the high accessibility of tobacco products coupled with willingness to travel or to access tobacco from different sources limited their view that this endgame approach would support their tobacco abstinence.

# Reducing nicotine in tobacco products

Clients of AOD services described feeling that reducing the amount of nicotine in cigarettes and tobacco (ie, VLNCs) to make them less addictive relative to other nicotine products would not be very effective for supporting tobacco cessation.

Yes, [for smoking] less, but I don't think that stops people from smoking cigarettes, you know? (P2, F, 49, cNRT, S)

I [think] they've gotta give up completely. There's no point lowering it... I think it's just prolonging the inevitable. (P5, F, 52, cNRT, NS)

Participants described how they found further modifications to cigarettes an unappealing prospect and assumed that this would impact their experience of smoking tobacco, but the resulting reduced product appeal would not stop people purchasing them.

I don't reckon it'd change anything. I reckon you'd have a lot [of] crankier people out on the street, because they'd need, they'd be smoking more, and they're wasting more money because the strengths have all been dropped. (P24, M, 43, NVP, NS)

Compensatory smoking behaviours were raised as a potential unintended consequence of VLNCs by some participants, such as smoking heavily or more frequently.

It's ridiculous... Because you can just smoke others, or smoke more... to satisfy cravings... [like] 'ultra-mild' and 4, 12, and 16[mg]. They stopped that because people were sucking '4s' harder and getting the same amount each turn. (P28, M, 48, NVP, S)

...I believe smoking [is] maybe like 50% the nicotine, and 50% everything else that comes from it. So, it would detract from those aspects of it, sure.... [but] I think it would just make people smoke more cigarettes, honestly. (P9, M, 29, cNRT, S)

Few people in the sample suggested that a VLNC standard would prompt people who smoke to seek full-nicotine strength cigarettes from illegal sources.

If they reduced the [nicotine], there'll be some[where] that will continue to sell their original product, and then all the business will go to them—people will get what they want to get. (P3, M, 30, cNRT, S)

The fact that people would still be smoking a combustible tobacco cigarette was described by some participants as less than ideal, and as still harmful for someone attempting to quit smoking. These factors reduced perceived effectiveness of a VLNC strategy.

The reason I'd say [no] is because when they're reducing in whatever, it's still addictive anyway, and it's still no good for you. So, whether you have a high-level nicotine [cigarette], or a low level... it's still smoking. (P10, M, 59, cNRT, S)

If it's a tool to stop people [smoking], yeah, that's good. But if it still has carcinogens and, you know, tar and whatever, what's the use? (P21, M, 52, NVP, NS)

Participants also noted that the effectiveness of VLNCs in supporting tobacco cessation required consideration of the complex social needs of clients of AOD services.

It just takes into account one part of the addiction, and not [the] whole plethora of other issues, or the psychosocial stuff, that's actually going on to those people [who] are smoking all the time. (P30, F, 49, NVP, S)

# Subsidising NVP access

Participants described how reducing the perceived cost barriers to NVPs as a pharmacological tobacco cessation aid would be effective in supporting their smoking abstinence, particularly in relation to disposable income. This is despite NVPs often being lower cost than conventional NRT (eg, patches), with both being cheaper than continued tobacco smoking.

...cigarettes are exorbitantly expensive, and a lot of people that end up in AOD facilities are, you know, lower [income]. Having access to a measure that could help them quit smoking, like... I don't have a lot of money to spend, and smoking is very taxing on my budget. [If] there was a subsidised replacement, I think it would be quite effective. (P14, M, 32, NVP, S) Financial considerations for accessing NVPs were associated with further concerns, given that people receiving AOD treatment for substance dependence often have complex social needs.

I think absolutely... the people that are in those services in general, you know, they've got no sort of financial backing—a lot of them were homeless. (P30, F, 49, NVP, S)

Individual commitment towards quitting was considered important to NVP-facilitated smoking cessation, beyond financial and product access considerations.

If they really want to do it, yeah, [provide] a subsidy, and they maybe sign a waiver [agreement]or something... like, if they're gonna quit they sign it, and they can get a subsidy [for] it. (P24, M, 43, NVP, NS)

Oh, 100%... because if I just stop right now and don't have access, I'll probably end up going to cigarettes again. If I knew... I could get access to it, well then I could just slowly, on my own terms, give it up. (P18, M, 52, NVP, NS)

Ease of access to NVPs for cessation was a concern to AOD service clients, relative to retail availability of tobacco products. The current Australian model requires a medical prescription prior to obtaining NVPs legally via domestic or importation pathways, whereas cigarettes can be purchased far more easily.

Yeah, I think that [subsidy] would be very important... because of how available cigarettes are—they need to be just as available as cigarettes. (P9, M, 29, cNRT, S)

Access is a major, yeah, that's still a problem, you know? If I could get a prescription for it, I definitely wouldn't go through where I have to [now], because then at least I know... it's [a] certified sort of [product] if you know what I mean .... I would prefer to have a prescription, but I can't find anyone. (P25, F, 38, NVP, NS)

Regarding perspectives on NVP subsidy, the views of participants who had used cNRT for tobacco cessation were included where they offered views on NVPs unprompted, as only NVP condition participants were directly asked about perceived effectiveness of subsidised NVP access.

#### DISCUSSION

This study was the first to ask clients of residential AOD treatment services in Australia about whether they felt that tobacco retail reduction, lowering tobacco nicotine levels in cigarettes and subsidised NVP access would support their tobacco smoking abstinence, following a pharmacologically supported cessation attempt using cNRT or NVP. We note again that the retail and product-focused approaches are considered tobacco endgame strategies, while the latter NVP access subsidy is instead a recently considered tobacco cessation approach in Australia, relative to established NRT. Despite participants' varying levels of familiarity with tobacco control and smoking cessation approaches, this study details the subjective views of AOD clients about personal support of the three measures.

The role of subsidised access to NVP-facilitated tobacco cessation was especially positively received by participants who had used this approach to tobacco cessation in the parent trial,<sup>33</sup> and this was similar among the few NRT using clients who offered unprompted perspectives on this. Clients' viewpoints centred on offering this as a cessation option after discharge from AOD treatment, and the perception that NVP was more cost-effective than smoking. Australia has the highest tobacco prices globally, with a pack of 25 cigarettes starting at \$A42.<sup>38</sup> As the cost of NVPs is comparably lower than combustibles in Australia,<sup>39</sup> subsidised access may reduce the initial device's cost barrier. Importantly, when NVP access is facilitated for tobacco abstinence, adherence to therapeutic use is high (eg, 64%).<sup>40</sup> Financial barriers need to be considered when working with this priority population to reduce tobacco harms, as reflected in participants' weekly income.

Individual commitment to quitting was considered by participants as necessary for such a subsidy to be beneficial. Engagement with services such as Quitline can be encouraged to increase this commitment. This is consistent with the recommendation of the Royal Australian College of General Practitioners that if NVPs are used, they are paired with behavioural support,<sup>25</sup> typically addressing motivation.

Cigarettes are more available to consumers than NVPs in the Australian retail environment, favouring tobacco access. Unlike study participants, AOD treatment clients do not receive free NVP tobacco cessation kits and guidance on prescription NVP access. Difficulty in navigating the NVP prescription access model and variable participation by health professionals, along with illicit sales of unregulated products,<sup>41</sup> suggests that barriers to regulated NVP access relative to tobacco should be addressed to increase their utility as a smoking cessation aid.

Residential substance dependence treatment minimises environmental triggers for AOD use,<sup>42</sup> typically in smoke-free settings. However, highly trafficked retail environments (eg, supermarkets) currently have no such restrictions in Australia. In comparison, Aotearoa plans to reduce tobacco retailers to 10% of its current figure.<sup>43</sup> Participants described feeling that reducing tobacco retail density would lead to increased travel and financial burden, particularly for those who smoked more. Yet, some participants acknowledged this strategy could support smoking abstinence. Reducing retail availability of tobacco products can reduce imbalanced access to smoked tobacco versus non-smoked nicotine products.<sup>44</sup>

Australian research shows higher smoking prevalence<sup>45 46</sup> and lower socioeconomic advantage<sup>47 48</sup> in areas of greater tobacco retailer density, and no Australian states or territories have restrictions on retailer density or proximity to health or educational facilities. The need to consider the role of different retail environments in affecting smoking cessation attempts is noted in research.<sup>49</sup> Physical stores and online or delivery retailers can impact tobacco abstinence, as these services can reduce cost, travel and access barriers. Considering which types of retailers to reduce could further support AOD service clients in remaining smoke free.

Lowering nicotine content of tobacco products to reduce addictive potential relative to NVPs and cNRT is estimated to be highly effective at addressing smoking in priority populations, including people with substance use disorders.<sup>15</sup> This endgame strategy was met with some scepticism by clients of AOD service clients, as some participants suggested this would increase smoking to compensate for lower nicotine. This likely reflects lack of experience with VLNCs and confusion with filter-ventilated cigarettes. Introducing a VLNC standard may require public education efforts to explain the policy, including with priority populations, which highlights the importance of consultation and co-design.

Although evidence suggests minimal impacts of VLNCs on smoking topography among people with substance use disorders,<sup>50</sup> compensatory smoking was expected by participants in this study. Health messaging could be designed to counteract VLNC misperceptions around smoking topography, while avoiding conflating reduced addictiveness with lower harm.<sup>51</sup> Participants were also fatalistic in their views of VLNCs as an effective endgame approach to support their tobacco abstinence. However, fatalistic beliefs can be expressed to emphasise that

personal decisions may only impact some health outcomes.<sup>52</sup> As such, VLNCs can be positioned as one approach within broader endgame strategy.<sup>19</sup>

Reduced product appeal and seeking cigarettes from legal and illegal sources were also raised in response to introducing VLNCs, consistent with other research.<sup>53</sup> Diverting people to alternative lower-risk nicotine products, such as NRT or NVPs, as an alternative to illegal sources of full-strength cigarettes should be explored.

#### Limitations

Findings are limited to a pharmacologically supported smoking cessation trial sample. Future research should consider including AOD service clients unmotivated to quit smoking. As this study asked about three policy options, receptivity to further policies, particularly those implemented, should be assessed (eg, 'tobacco-free generation').43 Future research should also seek balanced representation across smoking cessation approaches with samples more diverse in gender, ethnicity and First Nations status. Exploring combined tobacco endgame and cessation support strategies is also recommended. Although this study covered participants with and without prior NVP experience, future work should compare experiences of those with NVP use experience against those without. Specific research on tobacco endgame and cessation support strategies with Aboriginal and Torres Strait Islander clients of AOD services should be conducted using co-design methodologies.

#### Conclusion

Subsidised NVP access for tobacco cessation was well received by this sample of Australians in AOD treatment services, while tobacco retailer reduction had low acceptability. Tobacco retailer density and proximity should be considered in relation to those that AOD service clients frequently use. As acceptability of VLNCs was also low, with compensatory smoking behaviours raised by participants, messaging about this endgame strategy could focus on dispelling misconceptions about their effectiveness. Tobacco control strategies need to account for how AOD service clients' expectations can impact smoking cessation and abstinence, by messaging targeted to AOD service clients about how tobacco endgame approaches could affect their smoking and quitting process.

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**Acknowledgements** We thank participants and trial staff for their involvement, and Dr Eliza Skelton for the parent trial protocol.

**Contributors** Conceptualisation—JT, BB and CEG. Methodology—BB, JT and CEG. Formal analysis—JT, EW, JR and BB. Resources—BB. Data curation—JR and JT. Writing (original draft)—JT, JR and BB. Writing (review and editing)—JR, BB, EW and CEG. Supervision—BB. Project administration—BB, JR and JT. Funding acquisition—BB and CEG. JT accepts responsibility for the work and conduct of this study.

**Funding** This study was funded by Australian National Health and Medical Research Council (NHMRC; grant GNT1160245), with CEG and JT also supported by NHMRC (grant GNT1198301).

Competing interests None declared.

Patient consent for publication Not required.

**Ethics approval** This study involves human participants and ethical clearance was provided by the Hunter New England Area Health (REGIS: 2019/ETH10554) and University of Newcastle Human Research Ethics Committee (H-2019-0358). Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

**Data availability statement** Data are available upon reasonable request. The data that support the findings of this study are available from the corresponding author upon reasonable request.

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