

# Expanding the Definition of Tobacco Harm Reduction: A Mindset Change to Help Achieve a Smokefree Aotearoa

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**Although tobacco harm reduction will likely support realisation of the Smokefree Aotearoa Goal, this approach is often narrowly conceptualised as supporting transitions from smoking to alternative nicotine products that are less harmful. In this blog, we outline an expanded definition that goes beyond supporting access to and uptake of alternative nicotine products like vaping and recognises other core harm reduction approaches. These include measures that decrease the harmfulness of smoked tobacco products to the user and to others, and interventions that reduce the appeal, availability and addictiveness of smoked tobacco products in absolute terms and relative to alternative nicotine products. We encourage further discussion of these ideas amongst the smokefree community as attention turns to how measures in the soon-to-be-enacted Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Bill will be implemented.**



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Public health strategies have often used the term “harm reduction” to describe approaches that aim not to prevent an activity, but to reduce harmful health, economic, legal, cultural and social consequences of that activity. Harm reduction approaches commonly used in this way to mitigate harms of drug use include:

- Decriminalising cannabis use to reduce psycho-social harms from criminalising users and costs to the justice system (used in some high-income country jurisdictions).
- Providing access to methadone and needle exchange programmes to people using opioids (both used in NZ).
- Regulation around alcohol use such as: drink drive laws setting alcohol limits (most countries), requiring vehicle ignition locks for recidivist drunk drivers (used in NZ), relatively lower tax rates on low-alcohol beverages (including NZ), and requiring certain venues to serve drinks in plastic glasses to reduce injury (eg, nightclubs, rock concerts and sports events in some high-income country jurisdictions).
- Providing free testing of illicit drugs at festivals, now also used in NZ.<sup>1</sup>

Harm reduction has also been applied to tobacco/nicotine use. Hatsukami and Carroll proposed a commonly applied conceptualisation of harm reduction in this context: “Tobacco harm reduction involves providing tobacco users who are unwilling or unable to quit using nicotine products with less harmful nicotine containing products for continued use.”<sup>2</sup> They noted the potential benefit of nicotine harm reduction products (such as vaping products) and rising usage rates. New products that more closely mimic smoking practices may assist people unable to quit using traditional methods, such as nicotine replacement therapy (NRT), to transition away from smoking.<sup>3,4</sup> Nonetheless, the authors also recognised the potential risk these products pose when they commented: “others believe

that we will be addicting another generation to tobacco products". These comments reflect the careful balance required to ensure harm reduction measures bring overall population health benefits.

In Aotearoa NZ, recent data reporting on smoking and vaping show rapid declines in smoking,<sup>5</sup> a finding that some have argued suggests vaping is displacing smoking. This reasoning is consistent with some population-level studies in the US,<sup>6</sup> and would favour net health benefits according to NZ modelling work that found allowing access to vaping products could reduce harms to health.<sup>7</sup> On the other hand, the marked increase in vaping amongst young people,<sup>8</sup> evident also in the most recent NZ data<sup>5</sup> (where current smoking decreased by 0.8% among 15-24 year olds [from 8.6% to 7.8%] while monthly vaping increased by 5.3% [from 18.5% to 23.8%]), supports concerns that current policy has given rise to a new generation of nicotine-dependent young people who have never smoked.

Although discussions of tobacco harm reduction tend to focus on providing alternatives to people who smoke such as vaping, we suggest there is a case for expanding conceptualisations of harm reduction as applied to tobacco smoking. So in this blog, we outline an expanded definition that goes beyond supporting access to, and uptake of, alternative nicotine products like vaping and recognises other core harm reduction approaches. This more expansive definition is compatible with more holistic approaches to health such as the WHO definition and those typically held by Indigenous peoples. These approaches consider harm not only to users and their health (including impacts on agency and self-determination), but also to families and communities, and to the natural environment.

### **An expanded definition of harm reduction relating to tobacco smoking**

An expanded definition could include:

1. Reducing smoking prevalence by increasing switching to, or substitution by, alternative (harm reduced) products by:
  1. ensuring availability, affordability and appeal of alternative (harm reduced) products for people who smoke (ie, the commonly used conceptualisation);
  2. reducing availability, affordability, appeal and addictiveness of smoked tobacco products relative to alternative products;
2. Reducing the harm of smoking to people who continue to smoke;
3. Reducing the harm caused by smoked tobacco products to non-users;
4. Reducing the absolute availability, affordability, appeal and addictiveness of smoked tobacco products and thus increasing sustained quitting among people who smoke and/or reduced uptake of smoking.

Categories 1a and 1b effectively describe risk proportionate regulation and acknowledge the potential synergies between smokefree policies introduced in settings where alternative nicotine products are available.<sup>9</sup> On the basis of the above typology, we argue that smokefree policy and practice has often long deployed a harm reduction approach and, based on the final category, all effective smokefree policies and interventions could be considered harm reducing. However, although this final category is not generally considered a harm reduction approach, we suggest it fits logically within a harm reduction framework.

We outline examples of smokefree and vaping-related policy measures and interventions in the table below and describe which of the harm reduction categories noted above that they

address. Even so, we have not included an example of category 2. This reflects the general failure to identify means by which smoked tobacco products can be made less harmful – though when addiction is conceptualised as a harm in itself, mandated denicotinisation of tobacco would fit in here.

**Table 1: Selected examples of smokefree and vaping-related policies and interventions and aspects of harm reduction addressed**

<b>Smokefree and vaping-related policy or intervention</b>	<b>Promoting switching to/substitution by, lower risk products</b>	<b>Reducing harm from smoking to others</b>	<b>Reducing smoking by increasing quitting and/or reducing uptake of smoking</b>
<p>Allowing <b>ready access to vaping products</b> for people who smoke or are dependent on nicotine (this is in place in NZ, albeit with concerns around increasing rangatahi/youth uptake<sup>8</sup>) <b>[Category 1a]</b></p>	<p>Yes, this is a key potential benefit.</p> <p>But note there may be increased harm through rangatahi/youth uptake of vaping among people other than those who would otherwise have smoked.</p>	<p>Yes, exposure to vaping aerosol is probably less harmful than exposure to second-hand smoke (SHS), though the extent of harm reduction is still uncertain.</p>	<p>Yes, evidence from RCTs for increasing quit rates from smoked tobacco.<sup>10, 11</sup> However, efficacy in promoting cessation outside of intervention study settings is still unclear. For example, a meta-analysis of observational studies found that e-cigarettes were not associated with increased smoking cessation in the adult population overall.<sup>12</sup> Also dual users appear to be less likely to quit than people who only smoke tobacco.<sup>13</sup></p>
<p><b>Smokefree areas</b> including work places, public places, restaurants/bars, and vehicles with children. Many are currently mandated in NZ, albeit with scope for improvements.<sup>14, 15</sup> <b>[Category 3]</b></p>	<p>Unlikely to have a major impact.</p>	<p>Yes, very strong evidence of reduced exposure to SHS and reduced SHS harm to others.<sup>16</sup></p>	<p>Yes, strong evidence that smokefree areas improve quit rates<sup>17</sup> and protecting adolescents and young people from smoking could reduce risk of them starting to smoke (eg, this NZ study: <sup>18</sup>).</p>
<p><b>Denicotinisation of tobacco.</b> This is being considered by the NZ Parliament and is supported by NZ research.<sup>19-22</sup> <b>[Categories 1b, 4]</b></p>	<p>Yes, logic and emerging evidence,<sup>23</sup> including self-reports from people who smoke in NZ (see here and here) suggests that a denicotinisation policy would promote switching to vaping.</p>	<p>Probably, logic suggests that denicotinisation will reduce SHS exposure to non-smokers (if people smoke less or quit).</p>	<p>Very probably, RCTs and other evidence suggest that denicotinisation promotes quitting (even in those not motivated to quit<sup>24</sup>). See also supportive NZ findings.</p>

Smokefree and vaping-related policy or intervention	Promoting switching to/substitution by, lower risk products	Reducing harm from smoking to others	Reducing smoking by increasing quitting and/or reducing uptake of smoking
<b>Substantial reduction in retail outlet numbers</b> (this is being proposed for NZ) <b>[Categories 1b, 4]</b>	Probably, as logic suggests that reducing availability relative to vaping products will promote switching. In the ITC NZ study 13% of people who smoke said they would switch to vaping if this policy was introduced.	Probably, logic suggests that reduced smoking and increased quitting will reduce SHS exposure to non-smokers.	Probably, though estimates of impact are largely based on modelling. <sup>22, 25-27</sup>

On the basis of our broader conceptualisation, past regulation for smokefree environments and Aotearoa NZ’s proposed pioneering legislation (relating to denicotinisation and retail reduction) employ harm reduction approaches. Nevertheless, we consider that greater acceptance of this broader conceptualisation could support policy synergies and more comprehensive strategies to address smoking and the harm it causes. A broader conceptualisation of harm reduction may also create opportunities for greater cohesion within the smokefree community. Tobacco companies have much to gain by creating divisions within our sector; critically reflecting on their narrow definition of harm reduction could expose their tactics and help us avoid fragmentations that will only benefit their ends.

While we plan to expand on this whole topic in future work (and detail other harm reduction examples, and the societal/community and equity dimensions of harm reduction), we now encourage comment on this conceptualisation, particularly its implications for progressing the Smokefree Aotearoa 2025 Goal and the kaupapa Tupeka Kore.

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## References

1. Little A. Drug-testing law to be made permanent (Government Media Release). 2021;(9 April).
2. Hatsukami DK, Carroll DM. Tobacco harm reduction: past history, current controversies and a proposed approach for the future. *Preventive Medicine*. 2020;140:106099.
3. Keane H, Weier M, Fraser D, Gartner C. ‘Anytime, anywhere’: vaping as social practice. *Critical Public Health*. 2017;27(4):465-76.
4. Robertson L, Hoek J, Blank M-L, Richards R, Ling P, Popova L. Dual use of electronic nicotine delivery systems (ENDS) and smoked tobacco: a qualitative analysis. *Tobacco Control*. 2019;28(1):13-9.

5. Ministry of Health. Annual Update of Key Results 2021/22: New Zealand Health Survey. 2022;(17 November).  
<https://www.health.govt.nz/publication/annual-update-key-results-2021-22-new-zealand-health-survey>.
6. Warner KE. How to think—not feel—about tobacco harm reduction. *Nicotine and Tobacco Research*. 2019;21(10):1299-309.
7. Petrović-van der Deen FS, Wilson N, Crothers A, Cleghorn CL, Gartner C, Blakely T. Potential country-level health and cost impacts of legalizing domestic sale of vaporized nicotine products. *Epidemiology*. 2019;30:396-404.
8. Hoek J, Ball J, Robertson L, Gendall P, Wilson N, Edwards R, et al. Daily nicotine use increases among youth in Aotearoa NZ: The 2021 Snapshot Y10 Survey. *Public Health Expert (Blog)* 2022;(8 March).  
<https://blogs.otago.ac.nz/pubhealthexpert/daily-nicotine-use-increases-among-youth-in-aotearoa-nz-the-2021-snapshot-y10-survey/>.
9. Smith TT, Hatsukami DK, Benowitz NL, Colby SM, McClernon FJ, Strasser AA, et al. Whether to push or pull? Nicotine reduction and non-combusted alternatives – Two strategies for reducing smoking and improving public health. *Preventive Medicine*. 2018;117:8-14.
10. Chan GC, Stjepanović D, Lim C, Sun T, Anandan AS, Connor JP, et al. A systematic review of randomized controlled trials and network meta-analysis of e-cigarettes for smoking cessation. *Addictive Behaviors*. 2021;119:106912.
11. Hartmann-Boyce J, Lindson N, Butler AR, McRobbie H, Bullen C, Begh R, et al. Electronic cigarettes for smoking cessation. *Cochrane Database of Systematic Reviews*. 2022;11:CD010216.
12. Wang RJ, Bhadriraju S, Glantz SA. E-cigarette use and adult cigarette smoking cessation: a meta-analysis. *American Journal of Public Health*. 2021;111(2):230-46.
13. Osibogun O, Bursac Z, Maziak W. Longitudinal transition outcomes among adult dual users of e-cigarettes and cigarettes with the intention to quit in the United States: PATH Study (2013–2018). *Preventive Medicine Reports*. 2022;26:101750.
14. Wilson N, Delany L, Thomson GW. Smokefree laws and hospitality settings: an example from New Zealand of a deficient approach. *Tobacco Control*. 2020;29(4):460.
15. Wilson N, Gurram N, Grout L, Thomson G. A survey of the smokefree status of pedestrian-only spaces in 10 New Zealand local government areas. *New Zealand Medical Journal*. 2021;134(1544):69-80.
16. Frazer K, Callinan JE, McHugh J, van Baarsel S, Clarke A, Doherty K, et al. Legislative smoking bans for reducing harms from secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database of Systematic Reviews*. 2016(2).
17. Hopkins DP, Razi S, Leeks KD, Kalra GP, Chattopadhyay SK, Soler RE, et al. Smokefree policies to reduce tobacco use: a systematic review. *American Journal of Preventive Medicine*. 2010;38(2):S275-S89.
18. Ball J, Sim D, Edwards R. Addressing ethnic disparities in adolescent smoking: is reducing exposure to smoking in the home a key? *Nicotine and Tobacco Research*. 2019;21(4):430-8.
19. Walker N, Fraser T, Howe C, Laugesen M, Truman P, Parag V, et al. Abrupt nicotine reduction as an endgame policy: a randomised trial. *Tobacco Control*. 2015;24(e4):e251-7.
20. Walker N, Howe C, Bullen C, Grigg M, Glover M, McRobbie H, et al. The combined effect of very low nicotine content cigarettes, used as an adjunct to usual Quitline care (nicotine replacement therapy and behavioural support), on smoking cessation: a randomized controlled trial. *Addiction*. 2012;107(10):1857-67.

21. Wilson N, Hoek J, Nghiem N, Summers J, Grout L, Edwards R. Modelling the impacts of tobacco denicotinisation on achieving the Smokefree 2025 goal in Aotearoa New Zealand. *New Zealand Medical Journal*. 2022;135(1548):65-76.
22. Ait Ouakrim D, Wilson T, Waa A, Maddox R, Andrabi H, Mishra S, et al. Tobacco endgame intervention impacts on health gains and Māori:non-Māori health inequity: a simulation study of the Aotearoa-New Zealand Tobacco Action Plan. *medRxiv* 2022;(17 July) <https://medrxiv.org/cgi/content/short/2022.07.17.22277571v1>.
23. Smith TT, Heckman BW, Tidey JW, Colby SM, Cummings KM. Behavioral outcomes of nicotine reduction in current adult smokers. *Nicotine and Tobacco Research*. 2019;21(Supplement\_1):S125-S7.
24. Foulds J, Veldheer S, Pachas G, Hrabovsky S, Hameed A, Allen SI, et al. The effects of reduced nicotine content cigarettes on biomarkers of nicotine and toxicant exposure, smoking behavior and psychiatric symptoms in smokers with mood or anxiety disorders: A double-blind randomized trial. *PLoS ONE*. 2022;17(11):e0275522.
25. Pearson AL, Cleghorn CL, van der Deen FS, Cobiac LJ, Kvizhinadze G, Nghiem N, et al. Tobacco retail outlet restrictions: health and cost impacts from multistate life-table modelling in a national population. *Tobacco Control*. 2017;26:579-85.
26. van der Deen FS, Wilson N, Cleghorn CL, Kvizhinadze G, Cobiac LJ, Nghiem N, et al. Impact of five tobacco endgame strategies on future smoking prevalence, population health and health system costs: two modelling studies to inform the tobacco endgame. *Tobacco Control*. 2018;27(3):278-86.
27. Petrovic-van der Deen FS, Blakely T, Kvizhinadze G, Cleghorn CL, Cobiac LJ, Wilson N. Restricting tobacco sales to only pharmacies combined with cessation advice: a modelling study of the future smoking prevalence, health and cost impacts. *Tobacco Control*. 2019;28(6):643-50.

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