

# Awareness and use of oral tobacco and nicotine products among people who smoke or recently stopped smoking: descriptive findings from the 2024 EASE/ITC New Zealand survey

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## Abstract

**Introduction:** Aotearoa New Zealand (NZ) disallows sales of oral tobacco and nicotine products, although importation for personal use is permitted. The government proposes legalizing sales, claiming this will aid smoking cessation among “older, long-term smokers.” We examined awareness and use of tobacco-free oral nicotine products (ONPs), snus, and other oral tobacco products among adults who smoke or who recently stopped smoking.

**Methods:** We analyzed Wave 5 (2024) data from the EASE/International Tobacco Control (ITC) NZ Survey ( $N = 1371$ ) of adults who smoke or recently stopped smoking. We examined prevalence of awareness, ever, and current (at least monthly) use of oral tobacco and nicotine products, overall and by demographic factors and smoking status/cessation intentions.

**Results:** Awareness was 41.3% (95% confidence interval 37.7, 45.0) for ONPs, 31.5% (28.1, 35.2) for snus, and 70.2% (66.6, 73.5) for other oral tobacco products. Ever use was 12.5% (10.5, 14.8), 7.0% (5.5, 8.8), and 11.6% (9.6, 14.0), respectively. Current use was 4.1% (3.1, 5.6), 2.4% (1.5, 3.6), and 2.6% (1.9, 3.7), respectively. Weighted point estimates for awareness and use of snus and any oral product overall were lower among adults aged  $\geq 45$  than those aged 18–24 or 25–44. Current use of oral products was 5.8% (3.3, 10.1) among those who smoked daily with no intention to stop.

**Conclusions:** Current policy settings allow meaningful levels of oral product use in NZ. Use is uncommon among adults aged  $\geq 45$  years and occurs among people without cessation intentions, highlighting the risk that use may complement rather than replace smoking.

**Implications:** Our findings are consistent with international evidence that recent growth in oral product use is concentrated among younger age groups, use is uncommon among older age groups and often occurs alongside, rather than instead of, other tobacco product use. Together, this evidence calls into question the policy rationale that legalizing these products in NZ will primarily support smoking cessation among older adults. A plausible concern is that legalization could increase poly-use of tobacco and nicotine products and further concentrate uptake among younger people (most of whom do not smoke), particularly given youth-oriented marketing observed on social media.

**Keywords** Cessation, New tobacco products, Policy, Public health, Smokeless tobacco, Survey research

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## Introduction

Growth in the availability of novel tobacco-free oral nicotine products (ONPs), particularly nicotine pouches such as ZYN, has ignited public health debate internationally. Because people who use ONPs are exposed to fewer toxicants than those who smoke tobacco,<sup>1</sup> ONPs have harm reduction potential if they aid smoking cessation or completely replace smoking. However, dual use is common among adults who use ONPs,<sup>2</sup> and evidence that they promote smoking cessation remains limited.<sup>3</sup> While some evidence from Scandinavia suggests oral products could potentially displace smoking,<sup>4</sup> trials to date suggest nicotine pouches do not increase cessation compared with approved nicotine replacement therapies.<sup>5,6</sup> Marketers have promoted ONPs and snus on social media as lifestyle products,<sup>7</sup> driving uptake among youth,<sup>2</sup> including many who have never smoked regularly.<sup>8</sup> Evidence about the relative public health risks and benefits of this new product class remains limited, hindering evidence-based policymaking.<sup>9</sup>

Amid rapid product evolution and scientific uncertainty, regulatory approaches to ONPs vary internationally.<sup>10</sup> Aotearoa New Zealand (NZ) has long disallowed the sale of oral tobacco and nicotine products, including tobacco-free ONPs, although people may import oral products for personal use, e.g., via international mail order.<sup>11</sup>

The NZ government has proposed legalizing sales of smokeless tobacco and ONPs, with the responsible Minister providing the rationale that people who still smoke are “mostly older, long-term smokers”<sup>12</sup> and that “options [are] needed for that hardcore group of older smokers who [are] struggling to kick the habit.”<sup>13</sup> In 2024, Cabinet agreed in principle to allow the sale of “reduced harm smokeless tobacco and oral nicotine products (e.g., Swedish snus and nicotine pouches), subject to products meeting safety requirements and regulatory controls to prevent youth access.”<sup>14</sup> At the time of writing, this law change has not yet been introduced to Parliament, and the timeline remains unknown.

The scope of products to be permitted for sale is unclear. Toxicant exposure varies widely across oral product types, with chewing tobacco and traditional products from Asia and Africa known to cause oral, esophageal, and pancreatic cancer.<sup>15</sup> Modern Swedish snus is pasteurized, which reduces carcinogenic tobacco-specific nitrosamines (TSNAs); however, it still confers a cancer risk.<sup>16</sup> Tobacco-free ONPs such as nicotine pouches (sometimes called white snus or tobacco-free snus) are thought to be significantly less physically harmful than tobacco-based products<sup>17</sup>; nonetheless, they have detectable levels of known carcinogens, and their long-term health impacts are unknown.<sup>9,17</sup> Because of their differing harm profiles, differentiating between ONPs, modern Swedish snus, and other oral tobacco products is vital in research and policy.

NZ's distinct history and regulatory context make extrapolation from experiences in other settings uncertain. Establishing baseline awareness and use of oral tobacco and nicotine products will help anticipate the impacts of proposed policy changes and inform policy evaluation.

This study examined awareness and use of ONPs, snus, and other oral tobacco products among people who smoke or recently stopped smoking in NZ. We assessed ever and current use, and explored patterns by demographic variables, smoking status, and intention to stop smoking.

## Methods

### Data

We analyzed data from Wave 5 of the International Tobacco Control (ITC) NZ survey, also known as EASE (Evidence for Achieving Smokefree 2025 Equitably).

Eligibility criteria differed by retention status. Returning participants from the 2022 (Wave 4) survey were eligible for Wave 5 if they currently smoked or had stopped smoking within five years. Replenishment participants were eligible if they had smoked  $\geq 100$  lifetime cigarettes, and (i) currently smoked at least monthly or (ii) had stopped within 24 months and a history of smoking at least monthly. Participants from the previous wave were invited via email, whereas replenishment participants were recruited through a market research panel, social media and community advertising. All participants lived in NZ and were aged  $\geq 18$ .

Data were collected via an online survey between June 7 and September 16, 2024. See Wave 5 Technical Report for additional methodological detail.<sup>18</sup>

### Measures

Awareness was assessed by asking: *Have you ever HEARD of the following products?*

- *Snus*
- *OTHER ORAL TOBACCO, such as chewing tobacco*
- *TOBACCO-FREE oral NICOTINE products such as pouches, discs, or pearls (e.g., ZYN, On!, or VELO). Do NOT include nicotine replacement therapy.*

Images and descriptions were provided to differentiate categories (see [Supplementary Fig. S1](#)). An additional category “any oral tobacco or nicotine product” was created, coded as “yes” for people who responded “yes” to any of the above products; and “no [unaware]” for those reporting “no/don’t know” for all three products.

- Ever use. Those who reported awareness were asked: *Have you ever USED . . . ? (same product categories as above; yes/no), with an affirmative response defining ever use.*
- Current use. Those who reported ever use were asked: *How often do you currently use...? (same product categories).* Current use was defined as at least monthly (daily, weekly, or monthly).
- Smoking status and intention to stop smoking. Smoking status was combined with intention to stop smoking to create four mutually exclusive categories: “smokes daily, no intention to stop,” “smokes daily, intends to stop,” “non-daily smoking,” and “recently stopped smoking.”

### Analysis

Missing data. Responses coded as “refused” or otherwise missing were excluded from all analyses. “Don’t know” responses were treated as missing, except for awareness where they were classified as “unaware.” Missing responses for outcomes was  $<1\%$  (refused and don’t know responses, excepting for awareness) and

**Table 1** Awareness and use of oral tobacco and nicotine products among people who smoke or recently stopped smoking.

| Wave 5 total                                |             |                              |            |                              |             |                              |            |                              |
|---------------------------------------------|-------------|------------------------------|------------|------------------------------|-------------|------------------------------|------------|------------------------------|
|                                             | Awareness   |                              | Ever use   |                              | Current use |                              | Daily use  |                              |
|                                             | <i>n/N</i>  | Weighted prevalence (95% CI) | <i>n/N</i> | Weighted prevalence (95% CI) | <i>n/N</i>  | Weighted prevalence (95% CI) | <i>n/N</i> | Weighted prevalence (95% CI) |
| <b>Oral nicotine products (ONPs)</b>        | 597 (1369)  | 41.3% (37.7, 45.0)           | 198 (1363) | 12.5% (10.5, 14.8)           | 64 (1362)   | 4.1% (3.1, 5.6)              | 15 (1362)  | 0.8% (0.4, 1.4)              |
| <b>Snus</b>                                 | 432 (1365)  | 31.5% (28.1, 35.2)           | 108 (1363) | 7.0% (5.5, 8.8)              | 35 (1363)   | 2.4% (1.5, 3.6)              | 11 (1363)  | 0.5% (0.2, 0.9)              |
| <b>Other oral tobacco</b>                   | 983 (1368)  | 70.2% (66.6, 73.5)           | 174 (1366) | 11.6% (9.6, 14.0)            | 48 (1364)   | 2.6% (1.9, 3.7)              | 13 (1364)  | 0.6% (0.3, 1.2)              |
| <b>Any oral tobacco or nicotine product</b> | 1074 (1369) | 77.4% (74.1, 80.4)           | 335 (1359) | 22.4% (19.6, 25.4)           | 103 (1351)  | 6.4% (5.1, 8.1)              | 29 (1351)  | 1.5% (0.9, 2.3)              |

*n/N* are unweighted counts

1.5% for the composite any-product use outcome. There was no missing data for smoking status, age group, or ethnic group. Missingness for demographic variables (refused, don't know) was 0.2% for gender, 2.8% for intention to stop smoking, and 2.6% for financial hardship.

- **Weighting.** Data were analyzed using R 4.5 (R Institute, Vienna, Austria). Raked weights were calculated using gender, age group, region, and ethnicity, calibrated to NZ Health Survey (NZHS) estimates (2018/19–2019/20 combined) so that results reflect the NZ population who smoke or recently stopped smoking.
- **Ethical approval** was provided by the University of Otago Human Ethics Committee (20/020) and University of Waterloo Office of Research Ethics Board (REB #42549).

## Results

The sample comprised 1371 people who smoked or had recently stopped smoking. Demographic characteristics are provided in [Supplementary Table S1](#).

### Awareness of oral products

Prevalence of awareness was 41.3% (95% confidence interval 37.7, 45.0) for ONPs, 31.5% (28.1, 35.2) for snus, and 70.2% (66.6, 73.5) for other oral tobacco products ([Table 1](#)). Weighted point estimates for awareness tended to decrease with age, particularly for ONPs (67% among those aged 18–24, 44% among those aged 25–44, and 29% among those aged ≥45; [Supplementary Table S2](#)).

### Use of oral products

Ever use: 12.5% (10.5, 14.8) had used ONPs, 7.0% (5.5, 8.8) snus, and 11.6% (9.6, 14.0) other oral tobacco products. Overall, 22.4% (19.6, 25.4) had ever used any oral product ([Table 1](#)).

Current use was 4.1% (3.1, 5.6) for ONPs, 2.4% (1.5, 3.6) for snus, and 2.6% (1.9, 3.7) for other oral tobacco products, with 6.4% (5.1, 8.1) reporting current use of any oral product ([Table 1](#)).

Daily use was uncommon; prevalence was less than 1% ( $n \leq 15$  respondents) for all three individual product categories ([Table 1](#)).

### Current use of oral products by age and smoking status/intention to stop

Across all product categories, point estimates for current use were lower in the ≥45 age group than among younger adults, aged 18–24 or 25–44 ([Table 2](#)). The evidence for this pattern was strongest for snus and any oral product use; confidence intervals for the remaining product categories overlapped.

All smoking status/intention subgroups used oral products to some extent ([Table 2](#)), including those with no intention of stopping smoking. Point estimates suggest some patterning (e.g., lower current use among those who had recently stopped smoking), but wide, overlapping confidence intervals indicate substantial uncertainty.

Current use by gender, ethnic group and financial hardship is presented in [Supplementary Table S3](#).

Daily use by age and smoking status/intention to stop is presented in [Supplementary Table S4](#).

## Discussion

This is the first NZ study to investigate oral product use among adults who smoke or recently stopped smoking. We found moderate awareness but, in line with current regulatory restrictions, relatively low current use of ONPs (4.1%), snus (2.4%), and other oral tobacco products (2.6%). Daily use was under 1% for all three categories. Notably, current use of ONPs was just over half that observed in a comparable US sample (7.8%),<sup>19</sup> indicating uptake is occurring, despite oral products not being legally sold in NZ. Awareness and use of ONPs (and oral products overall) was significantly lower among those aged ≥45 compared with younger adults. We found no clear differences by smoking status/cessation intention, but the precision of estimates was limited due to low levels of reported use.

Our cross-sectional data limit what we can conclude about how and why people are using these products, but one finding is worth noting: use of oral products was observed among people who did not intend to stop smoking, suggesting use was not primarily for cessation in this group. Future research should explore ITC survey data on use of oral products in quit attempts. Our finding is consistent with qualitative research indicating some people who

**Table 2** Current use of oral products by age group and smoking status/intention to stop smoking.

|                                            | Current use                   |                              |            |                              |                    |                              |                                      |                              |
|--------------------------------------------|-------------------------------|------------------------------|------------|------------------------------|--------------------|------------------------------|--------------------------------------|------------------------------|
|                                            | Oral nicotine products (ONPs) |                              | Snus       |                              | Other oral tobacco |                              | Any oral tobacco or nicotine product |                              |
|                                            | <i>n/N</i>                    | Weighted percentage (95% CI) | <i>n/N</i> | Weighted percentage (95% CI) | <i>n/N</i>         | Weighted percentage (95% CI) | <i>n/N</i>                           | Weighted percentage (95% CI) |
| <b>By Age Group</b>                        |                               |                              |            |                              |                    |                              |                                      |                              |
| <b>18-24</b>                               | 16 (300)                      | 4.1 (2.4, 7.0)               | 9 (304)    | 3.1 (1.2, 8.1)               | 15 (303)           | 3.7 (2.0, 6.6)               | 32 (299)                             | 9.3 (6.0, 14.2)              |
| <b>25-44</b>                               | 37 (653)                      | 6.1 (4.2, 8.9)               | 22 (650)   | 4.0 (2.4, 6.6)               | 25 (651)           | 3.6 (2.2, 5.7)               | 54 (644)                             | 8.7 (6.3, 11.9)              |
| <b>≥45</b>                                 | 11 (409)                      | 2.1 (1.0, 4.4)               | 4 (409)    | 0.4 (0.2, 1.1)               | 8 (410)            | 1.2 (0.6, 2.7)               | 17 (408)                             | 3.0 (1.7, 5.3)               |
| <b>By Smoking Status/Intention to Stop</b> |                               |                              |            |                              |                    |                              |                                      |                              |
| <b>Smokes daily, no intention to stop</b>  | 13 (225)                      | 3.8 (1.8, 7.8)               | 10 (226)   | 3.3 (1.4, 7.5)               | 12 (225)           | 2.9 (1.5, 5.5)               | 20 (225)                             | 5.8 (3.3, 10.1)              |
| <b>Smokes daily, intends to stop</b>       | 24 (351)                      | 6.3 (4.0, 10.0)              | 13 (351)   | 2.6 (1.4, 4.8)               | 19 (353)           | 3.6 (2.1, 6.0)               | 39 (348)                             | 8.7 (5.9, 12.6)              |
| <b>Non-daily smoking</b>                   | 20 (310)                      | 6.3 (3.7, 10.6)              | 10 (309)   | 4.3 (2.0, 9.1)               | 11 (308)           | 3.8 (1.8, 8.0)               | 31 (306)                             | 9.9 (6.4, 15.0)              |
| <b>Recently stopped smoking</b>            | 6 (441)                       | 1.5 (0.6, 3.6)               | 2 (438)    | 0.9 (0.2, 4.3)               | 6 (440)            | 1.4 (0.6, 3.1)               | 12 (434)                             | 3.3 (1.7, 6.3)               |

*n/N* are unweighted counts

smoke use pouches as situational complements to smoking rather than cessation tools,<sup>20</sup> and US and UK studies that show dual- or poly-use is the dominant pattern among people who use nicotine pouches.<sup>2,3</sup> While it is possible that use of oral products may help some people reduce their cigarette consumption, complete cessation is needed to substantially reduce the risks of cancer and other smoking-related diseases.<sup>21</sup>

Lower awareness and use among participants aged ≥45 indicates that, under current conditions, oral products are less salient to this group. The effect of proposed legalization is uncertain; however, international evidence suggests that, where ONPs have been introduced, they have typically been marketed by tobacco companies as lifestyle products rather than smoking cessation aids,<sup>7</sup> and population uptake has been concentrated among younger people.<sup>2,8</sup> This pattern mirrors earlier experience in NZ, where vaping uptake was strongly shaped by marketing and retail environments.

Taken together, these findings support the Ministry of Health's 2024 advice to the Minister that "[a]dditional products will likely compound existing concerns about young peoples' addiction to nicotine for little benefit."<sup>22</sup> While oral products may have potential as substitutes for smoking, evidence on their cessation efficacy remains extremely limited,<sup>3,5,6</sup> and real-world use may not align with policy intent. If legalized, strong regulatory and communication measures would be needed to minimize uptake among young people and promote complete substitution rather than dual use among people who smoke.

Current use of "other oral tobacco products" by 2.6% of the sample is notable, given these products are not legally sold in NZ, are not part of the dominant NZ culture, and—unlike ONPs—do not appear to be widely promoted on platforms such as TikTok. Oral tobacco products have a concerning oral health and cancer risk profile,<sup>15</sup> warranting further investigation into the types of products used and the populations using them in NZ.

Our study's strengths and limitations should be considered when interpreting the findings. The cross-sectional design limits inference about how and why people use oral products. Although our study comprised a large and diverse sample of people who smoke, low levels of oral product use within subgroups resulted in imprecise subgroup estimates with wide confidence intervals. Further, we did not adjust for potential confounding in subgroup analyses (e.g., smoking less than daily is more common among young adults, while smoking daily with no intention of stopping is more common among older adults). For these reasons, subgroup comparisons should be interpreted with caution. Participants recruited through social media and community advertising were self-selected, which may have introduced selection bias if individuals with greater interest in tobacco or nicotine products were more likely to participate. However, this potential bias was mitigated by using multiple recruitment sources and weighting to reflect the target population. We did not assess oral product use among people who have never smoked; however, the ITC Youth and Young Adult Survey (ages 16–29) found that 6% of those who had used ONPs in the past month had never smoked and 54% had smoked <100 cigarettes, indicating the majority in this age group who used ONPs did not have an established smoking practice.<sup>8</sup> Finally, the NZHS estimates available for weighting (2018–2020) pre-dated data collection (2024) and may not fully reflect the demographic profile of people who smoked or recently stopped smoking at the time of the survey. However, we do not expect this to substantively impact the estimates.

## Conclusion

This study provides baseline evidence on awareness and use of oral tobacco and nicotine products among people who smoke, ahead of proposed regulatory changes. Current use is higher among adults aged 18–44, is uncommon among adults aged ≥45,

and occurs among people with no intention of stopping smoking. These patterns are consistent with international evidence that recent growth in ONP use has been largely driven by younger people, rather than adults with long-standing smoking practices. Taken together, the evidence calls into question the policy rationale that legalizing these products in NZ will primarily support smoking cessation among older adults. A plausible concern is that legalization could increase poly-use of tobacco and nicotine products and further concentrate uptake among younger people (most of whom do not smoke). This risk is compounded by the challenges of regulating online marketing, a key channel through which young people are exposed to oral products. Robust monitoring, alongside longitudinal and qualitative research, will be essential to assess the impact of any regulatory change on smoking behavior and population health.

## Supplementary material

Supplementary material is available at *Nicotine & Tobacco Research* online.

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## Declaration of interests

*None of the authors receive any funding or have any affiliation with the tobacco industry or commercial vaping/nicotine product companies. GTF has been an expert witness or consultant for governments defending their country's policies or regulations in litigation. JH co-directs the ASPIRE Aotearoa Research Centre, which works to support rapid and equitable reductions in smoking prevalence. She has received funding from independent health agencies, including the NZ Cancer Society, NZ Health Research Council, and the Royal Society of NZ Marsden Fund. She has also received travel support and hospitality to present her findings, and small gifts (e.g., book vouchers) for presenting her findings in various fora. JH is a Senior Editor with Tobacco Control and receives an honorarium for that role. All other authors have no conflicts of interest to declare.*

## Author contributions

Jude Ball (Conceptualization [equal], Investigation [supporting], Methodology [supporting], Project administration [supporting], Writing - original draft [lead], Writing - review & editing [lead]), Jane Zhang (Conceptualization [supporting], Data curation [supporting], Formal analysis [lead], Investigation [equal], Methodology [supporting], Writing - original draft [supporting], Writing - review & editing [supporting]), Janet Hoek (Conceptualization [supporting], Funding acquisition [lead], Writing - original draft [supporting], Writing - review & editing [supporting]), James

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## Data availability

In each country participating in the International Tobacco Control Policy Evaluation (ITC) Project, the data are jointly owned by the lead researcher(s) in that country and the ITC Project at the University of Waterloo. Data from the ITC Project are available to approved researchers 2 years after the date of issuance of cleaned data sets by the ITC Data Management Centre. Researchers interested in using ITC data are required to apply for approval by submitting an International Tobacco Control Data Repository (ITCDR) request application and subsequently to sign an ITCDR Data Usage Agreement. The criteria for data usage approval and the contents of the Data Usage Agreement are described online (<http://www.itcproject.org>).

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## References

1. Zou H, Lyu Q, Hu S. Pathology of oral nicotine pouches and their addiction mechanisms. *J Dent*. 2025;166:106272. <https://doi.org/10.1016/j.jdent.2025.106272>.
2. Tattan-Birch H, Jackson SE, Shahab L, et al. Oral nicotine pouch use in Great Britain: a repeat cross-sectional study, 2020-25. *Lancet Public Health*. 2026;11(1):e26-e34. [https://doi.org/10.1016/S2468-2667\(25\)00296-8](https://doi.org/10.1016/S2468-2667(25)00296-8).
3. Choi K, Jewett B, Hamilton-Moseley KR, Zarei K, Hacker K, Phan L. Patterns of tobacco product use among US adults who use nicotine pouches and the association between nicotine pouch use and tobacco product use cessation. *Tob Control*. 2026;tc-2025-059832. <https://doi.org/10.1136/tc-2025-059832>.
4. Ramström L, Borland R, Wikmans T. Patterns of smoking and snus use in Sweden: implications for public health. *Int J Environ Res Public Health*. 2016;13(11):1110.
5. Heshmati J, Shahan S, Bates EL, et al. Nicotine pouches and clinical outcomes related to smoking cessation: a systematic

- review of randomized trials. *Addiction*. 2025. <https://doi.org/10.1111/add.70193>.
6. Hartmann-Boyce J, Tattan-Birch H, Brown J, et al. Oral nicotine pouches for cessation or reduction of use of other tobacco or nicotine products. *Cochrane Database Syst Rev*. 2025;2025(10):CD016220. <https://doi.org/10.1002/14651858.CD016220.pub2>.
  7. Zenone M, Harries B, Hartwell G. The promotion of oral nicotine pouches for non-smoking cessation purposes on TikTok. *Nicotine Tob Res*. 2025;28(2):282-286. <https://doi.org/10.1093/ntr/ntaf024>.
  8. Reid JL, Burkhalter R, Ball J, et al. Awareness and use of oral nicotine pouches among youth and young adults, 2022-2024: repeat cross-sectional surveys in Canada, England, the USA and New Zealand. *BMJ Public Health*. 2025;3(2):e003457. <https://doi.org/10.1136/bmjph-2025-003457>.
  9. Travis N, Warner KE, Goniewicz ML, et al. The potential impact of oral nicotine pouches on public health: a scoping review. *Nicotine Tob Res*. 2025;27(4):598-610. <https://doi.org/10.1093/ntr/ntae131>.
  10. Duren M, Atella L, Welding K, Kennedy RD. Nicotine pouches: a summary of regulatory approaches across 67 countries. *Tob Control*. 2023;33(e1):e32-e40. <https://doi.org/10.1136/tc-2022-057734>.
  11. New Zealand Medicines and Medical Devices Safety Authority (Medsafe). *Overview of Tobacco-Based and Synthetic-Based Oral Nicotine Products Wellington: Medsafe*; 2025 Accessed January 29, 2026. <https://www.medsafe.govt.nz/regulatory/OralNicotineProducts.asp>.
  12. Costello C. *Smoking Rate Reduces to 6.8% [Media Release] Wellington: Website of the New Zealand Government*; 2025 Accessed April 6, 2026 <https://www.beehive.govt.nz/release/smoking-rate-reduces-68-cent>.
  13. Hill R. *Health Select Committee Erupts into Heated Debate over Roll out of Oral Tobacco and Nicotine Products Radio New Zealand* 2025 Accessed February 18, 2026 <https://www.rnz.co.nz/news/political/580761/health-select-committee-erupts-into-heated-debate-over-roll-out-of-oral-tobacco-and-nicotine-products>.
  14. Office of the Associate Minister of Health HCC. *Smokefree 2025: Progressing Coalition Agreement Commitments [CAB-24-MIN-0071]*. 2024.
  15. IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. *Smokeless Tobacco. Personal Habits and Indoor Combustions: A Review of Human Carcinogens*. 2012.
  16. Valen H, Becher R, Vist GE, et al. A systematic review of cancer risk among users of smokeless tobacco (Swedish snus) exclusively, compared with no use of tobacco. *Int J Cancer*. 2023;153(12):1942-1953. <https://doi.org/10.1002/ijc.34643>.
  17. Kopa-Stojak PN, Pawliczak R. Comparison of carcinogenic potential of alternative tobacco products. A systematic review. *Toxicol Mech Methods*. 2025;35(9):1161-1175. <https://doi.org/10.1080/15376516.2025.2536664>.
  18. ITC Project. *ITC New Zealand Survey, Wave 5 (2024) Technical Report* Waterloo, Ontario: University of Otago & University of Waterloo; 2025 Accessed March 23, 2026 <https://itcproject.org/methods/technical-reports/dec-17-2025-itc-new-zealand-nzl-wave-5-2024-technical-report/>.
  19. Gravely S, Hrywna M, Meng G, et al. Use of nicotine pouches among adults who currently or formerly smoked cigarettes and/or vaped nicotine: findings from the 2022 and 2024 US ITC smoking and vaping surveys. *Tob Control*. 2025;tc-2025-059556. <https://doi.org/10.1136/tc-2025-059556>.
  20. Clark SA, Baler G, Jarman KL, Byron MJ, Goldstein AO, Ranney LM. Qualitative perspective on nicotine pouches from adults who smoke cigarettes in North Carolina. *Tob Control*. 2024;34(3):378-381. <https://doi.org/10.1136/tc-2023-058334>.
  21. U.S. Department of Health and Human Services. *Smoking Cessation. A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2020.
  22. Ministry of Health. Briefing. Getting to Smokefree 2025: reform of vaping, smokeless tobacco and consumer nicotine product regulation. Proactively released documents. 2024.