

# New Zealand Smoking Monitor 2017/18 Annual Report

January 2019

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## KEY FINDINGS

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There were several key findings from the 2017/18 NZSM survey year:

- Around one-half (51%) of respondents reported recent exposure to tobacco control advertising. Interestingly, awareness was higher among young adults (18 to 24-year-olds), compared with those aged 65 years and over.
- The level of reported exposure to paid tobacco control messages varied across the year and the changes in exposure closely aligned with the changes in HPA tobacco control media spend.
- Overall, one-fifth (21%) of respondents were aware of recent changes in tobacco control policy. The highest levels of awareness (43%) occurred in January, likely in association with the 1 January increase in tobacco excise.
- The most common place to purchase tobacco was the dairy (46%), followed by the supermarket (19%) and service stations (17%).
- Quit attempts were most common in December and January, and as expected, there were significant differences between smoking status groups in the proportion of respondents making quit attempts.
- Among those who were trying to quit, nicotine replacement therapy (55%) was the most commonly used cessation support. However, a notable proportion indicated that they did not use any cessation support (28%).

# INTRODUCTION

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The Ministry of Health funds the Health Promotion Agency (HPA) to conduct the New Zealand Smoking Monitor (NZSM), which is a continuous fortnightly survey of current and ex-smokers. The NZSM is designed to provide up-to-date data on key tobacco control indicators.

HPA has produced this report for the Ministry of Health. It describes the method and key results from the 2017/18 survey year, before summarising the key opportunities and challenges associated with the NZSM.

## METHOD

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### OVERVIEW

The NZSM is a continuous survey of current and ex-smokers. Fieldwork for the 2017/18 survey year commenced on 9 July 2017, and continued on a fortnightly cycle. All survey interviews were conducted via computer-assisted telephone interviewing (CATI).

### RESPONDENTS

Eligible respondents were at least 18-years-old and met the criteria for inclusion in one of three smoking status groups: non-attempters, recent quit attempters, and serious quitters (see Table 1).

Table 1. Recruitment criteria for the three smoking status groups in the NZSM

Device type	Recruitment criteria
<b>Current smokers, non-attempters ('non-attempters')</b>	<ul style="list-style-type: none"><li>• smoked regularly in the past three months AND</li><li>• smoked daily in the last 30 days AND</li><li>• had not made a quit attempt that lasted 24 hours or longer in the past three months.</li></ul>
<b>Recent quit attempters</b>	<ul style="list-style-type: none"><li>• smoked regularly in the past three months AND</li><li>• smoked daily in the last 30 days AND</li><li>• had made a quit attempt that lasted 24 hours or longer in the past three months (regardless of whether it was a successful or failed quit attempt).</li></ul>
<b>Serious quitters</b>	<ul style="list-style-type: none"><li>• smoked regularly in the past three months</li><li>• did not smoke daily in the last 30 days (ie, smoked less than one cigarette per day or had stopped completely)</li><li>• intended to stop smoking completely in the next three months</li></ul>

Non-attempters and recent quit attempters were recruited from UMR Research's nationally-representative telephone-based omnibus survey, while serious quitters were recruited from the Quitline client database. All respondents provided informed consent before taking part (see Appendix 1 for the specific details of the recruitment process).

The target was to interview 60 respondents in each group, each fortnight. Once recruited, respondents were retained for up to six fortnights. Those who completed six interviews or dropped out of the survey were replaced with new respondents.

Table 2 summarises the characteristics of the individuals in the 2017/18 survey year ( $n = 1,215$ ).

Table 2. Characteristics of respondents

		Number	Percent (%)
<b>Smoking status<sup>1</sup></b>	<b>Non-attempters</b>	365	30
	<b>Recent quit attempters</b>	394	32
	<b>Serious quitters</b>	456	38
<b>Gender</b>	<b>Female</b>	640	53
	<b>Male</b>	575	47
<b>Ethnicity<sup>2</sup></b>	<b>Māori</b>	233	19
	<b>Pacific</b>	61	5
	<b>Asian</b>	44	4
	<b>European/Other</b>	877	72
<b>Age</b>	<b>18-24 years</b>	103	8
	<b>25-44 years</b>	510	42
	<b>45-64 years</b>	438	36
	<b>65+ years</b>	164	14
<b>Household income</b>	<b>Low (\$0-43,500)</b>	411	34
	<b>Medium (\$43,501-78,500)</b>	355	29
	<b>High (\$75,501+)</b>	232	19
	<b>Undefined<sup>3</sup></b>	217	18

## DATA ANALYSIS

Data cleaning and all statistical analyses were undertaken using STATA/IC 14.2. Descriptive statistics (proportions) for each question were calculated first and are presented in figures or tables. ‘Don’t know’ or ‘refused’ responses were excluded from analysis.

Generalised estimating equations (GEE)<sup>4</sup> were then used to compare responses across key subgroups (smoking status, gender, ethnicity, age, and household equivalised income) after adjusting for the confounding effect of the number of interviews respondents participated in. All variables were included in each GEE model so that reported differences can be interpreted as ‘a significant difference by [subgroup], after controlling for the effect of all other variables in the model’. Statistical differences ( $p < 0.05$ ) identified from the GEE models are described.

<sup>1</sup>Defined according to their smoking status at their first interview

<sup>2</sup>Prioritised in the order of: Māori, Pacific, Asian, and European/Other.

<sup>3</sup>Those who refused the question or said they did not know their household income

<sup>4</sup> GEEs were used to account for the correlation between responses that arises through repeated interviewing of the same individuals (see Hardin, 2005. Generalized estimating equations (GEE). Encyclopedia of Statistics in Behavioral Science. John Wiley & Sons, Ltd.)

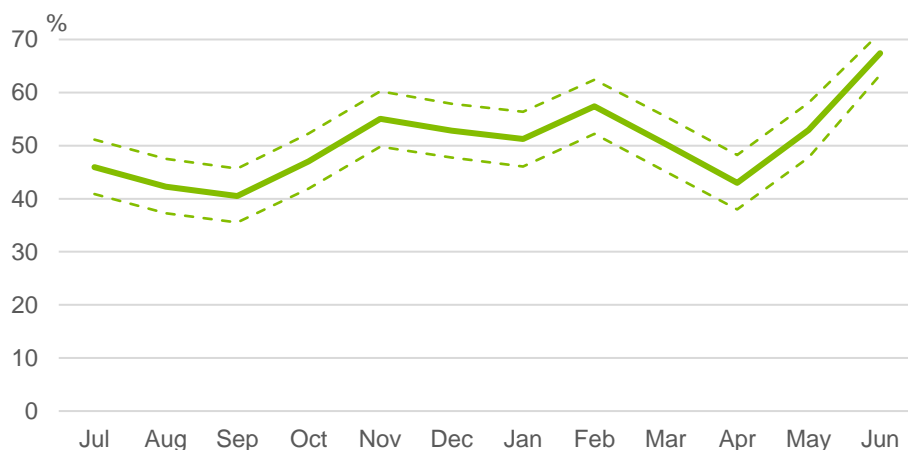
# RESULTS

## EXPOSURE TO TOBACCO CONTROL ADVERTISING

On average, 51% of respondents reported recent exposure to tobacco control advertising.<sup>5</sup> Older adults (65 years and over; 42%) were less likely than young adults (18 to 24-year-olds; 60%) to report being exposed to tobacco control advertising. There were no differences by gender, ethnicity, household income, or smoking status.

As shown in Figure 1, exposure to tobacco control advertising varied between 41% and 67% across the 2017/18 survey year, and was highest in June (67%). The peaks in reported exposure (November, February/March, and June) align closely with the level of HPA media spend at these times, ie, greater media spend is associated with more exposure to tobacco control advertising.

Figure 1. Reported exposure to paid media across the 2017/18 survey year



Base: All respondents (n = 4,477)

Dashed lines indicate the upper and lower bounds of the 95% confidence intervals

Those who had seen or heard tobacco control advertising in the past week were asked where they had seen it. TV was the most common location, followed by cigarette packaging (see Table 3).

Table 3. Common locations people reported seeing tobacco control advertising

Location	% [95% confidence interval]
TV (including real-time and on-demand)	48 [46, 50]
Cigarette packaging	20 [18,22]
Social media site	7 [6,8]
Pamphlet	7 [6,8]
Radio	6 [5,7]
Other	5 [5,6]

Base: Those who had seen or heard advertising in the last week (n = 2,291)

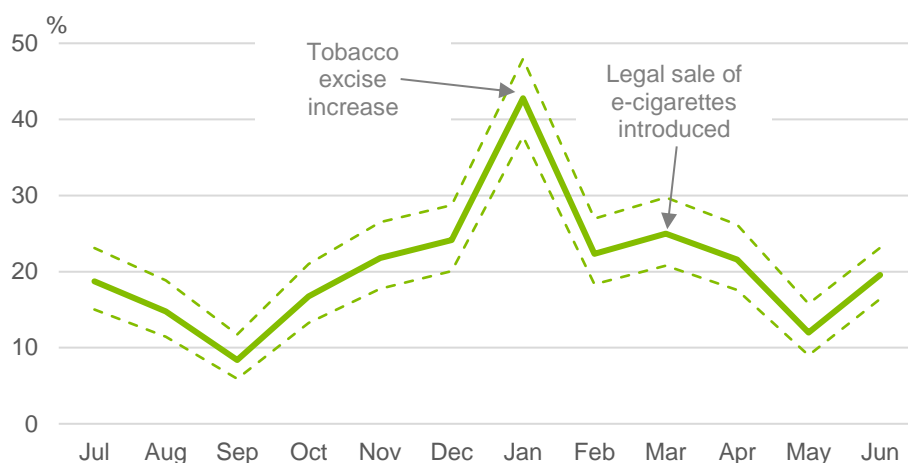
Locations listed by ≤ 2% of respondents were newspapers/magazines, bus stops, outside of buses, internet ads, and the internet (eg, YouTube).

<sup>5</sup>All respondents were asked, 'Do you recall seeing or hearing any advertising anywhere in the last week about not smoking, quitting smoking or the harmful effects of smoking?'

## AWARENESS OF TOBACCO CONTROL POLICY CHANGES

On average, 21% of respondents reported being aware of recent changes in tobacco control policy.<sup>6</sup> There were no differences in awareness by age, gender, ethnicity, household income, or smoking status. However, awareness was higher in January (43%), likely in association with the 1 January increase in tobacco excise (see Figure 2).

Figure 2. Awareness of policy changes across the 2017/18 survey year



Base: All respondents (n = 4,481)

Dashed lines indicate the upper and lower bounds of the 95% confidence intervals

## PLACES TOBACCO PURCHASED

Among those who had smoked in the past two weeks, the dairy was the most common place respondents bought most of their tobacco, followed by the supermarket and service stations (see Table 4).<sup>7</sup> Common purchasing locations were similar across the smoking status groups, although serious quitters (24%) and recent quit attempters (5%) were more likely than non-attempters (2%) to say that they did not buy their cigarettes.

Table 4. Common places tobacco purchased from

Location	% [95% confidence interval]
Dairy	46 [44,47]
Supermarket	19 [18,21]
Service station	17 [16,18]
I didn't buy my cigarettes	7 [6,8]
Tobacconist	5 [4,6]
Superette	4 [3,4]

Base: Current smokers and ex-smokers who had smoked in the last two weeks (n = 3,263)

Locations listed by ≤ 2% of respondents were 'other sources' and duty free.

<sup>6</sup>All respondents were asked, 'In the last week, have you become aware of any changes in government policy about smoking or tobacco?'

<sup>7</sup>Respondents were asked, 'In the last two weeks, where did you buy most of your tobacco from?'



## USE OF NICOTINE PRODUCTS

Overall, cigarettes were the most common nicotine-containing product used in the last two weeks, followed by nicotine-replacement therapy (see Table 5).<sup>8</sup>

Table 5. Nicotine products used in the past two weeks

Product	% [95% confidence interval]	Sample size (n)
Cigarettes (tailor made or roll-your-own)	72 [70,73]	4,499
Nicotine replacement therapy (NRT)	29 [27,30]	4,498
E-cigarettes that contain nicotine	15 [14,16]	4,489
Other electronic devices that deliver nicotine	4 [3,5]	4,499

Base: All respondents (note that the specific *n* for each product changes due to the exclusion of 'don't know' responses) Fewer than 2% of respondents reported using cigars, pipes, water pipes for smoking tobacco, chewing tobacco, or any other product that delivers nicotine.

Use of cigarettes was more common among:

- Females (77%), compared with males (65%)
- Non-attempters (96%), compared with recent quit attempters (85%) and serious quitters (34%)

Use of nicotine replacement therapy was more common among:

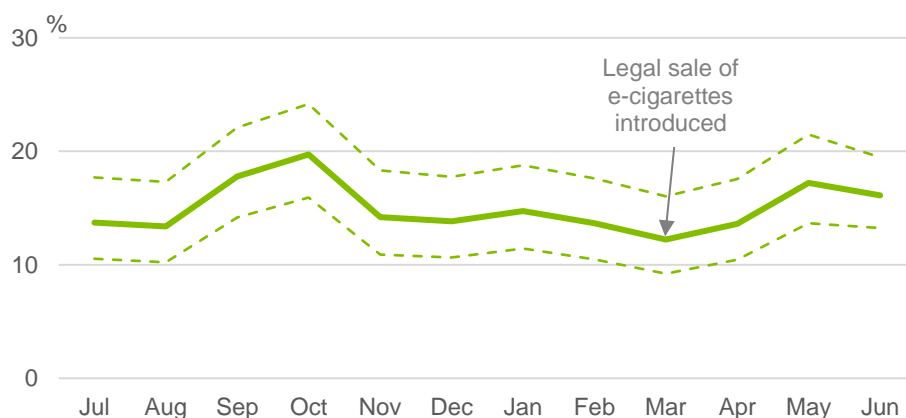
- Older adults (45 to 64-year-olds: 30%; 65+ years: 25%<sup>9</sup>), compared with 18 to 24-year-olds (28%)
- Recent quit attempters (17%) and serious quitters (66%), compared with non-attempters (3%)

Use of nicotine-containing e-cigarettes was more common among:

- Māori (19%), compared with non-Māori (14%)
- 18 to 24-year-olds (25%), compared with those aged 65 years and over (11%)
- Recent quit attempters (23%) and serious quitters (15%), compared with non-attempters (8%)

Use of nicotine-containing e-cigarettes varied between 12% and 20% across the 2017/18 survey year, but the fluctuations did not appear to have occurred in association with particular events, or to follow a specific trend (see Figure 3).

Figure 3. Use of nicotine-containing e-cigarettes across the 2017/18 survey year



Base: All respondents (n = 4,489)

Dashed lines indicate the upper and lower bounds of the 95% confidence intervals

<sup>8</sup>All respondents were asked, 'In the last two weeks, have you used any of the following products...[products listed]'

<sup>9</sup>Although those aged 65 and over had numerically lower rates of NRT use, they were still more likely to use it than young adults after adjusting for the other variables in the model.

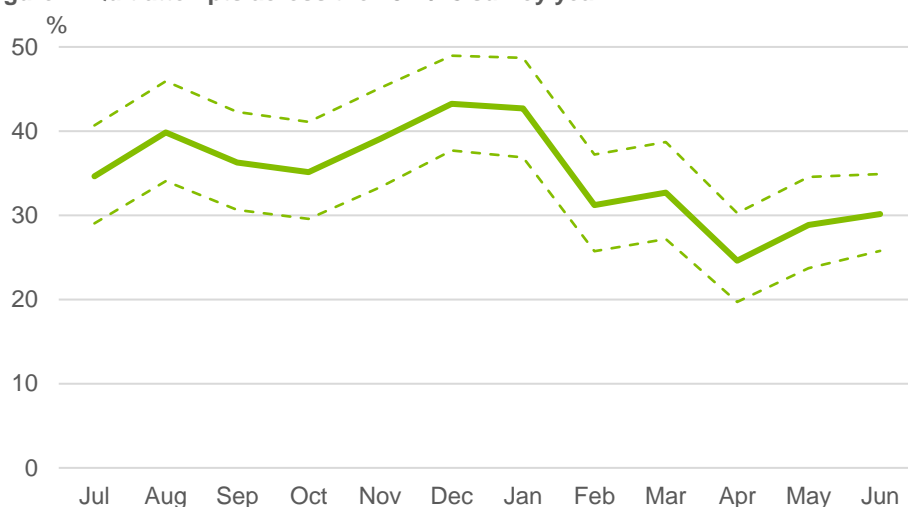
## CESSATION BEHAVIOUR

### Quit attempts

On average, 35% of those who had smoked in the past two weeks said they had tried to quit in that time. However, there were clear differences between smoking status groups: serious quitters (82%) were most likely to have tried to quit, followed by recent quit attempters (46%) and non-attempters (9%). There were no differences by age, gender, ethnicity, or household income.

As shown in Figure 4, quit attempts among those who had smoked in the past two weeks were most common in December and January.

Figure 4. Quit attempts across the 2017/18 survey year



Base: Current smokers and ex-smokers who had smoked in the last two weeks (n = 3,281)  
Dashed lines indicate the upper and lower bounds of the 95% confidence intervals

### Use of cessation aids or services

Overall, nicotine replacement therapy was the most common cessation help or support used by respondents who had made a serious quit attempt (lasting 24 hours or longer) in the last two weeks (see Table 6).<sup>10</sup>

Table 6. Cessation help or support used in recent quit attempt

Product	% [95% confidence interval]
Nicotine replacement therapy (NRT)	55 [52,58]
No support	28 [25,31]
E-cigarettes	13 [11,15]
Other (not listed)	5 [4,6]
Quitline	4 [3,5]
Cessation medications other than NRT	4 [3,5]

Base: Current smokers and ex-smokers who had made a serious quit attempt in the past two weeks (n = 941)  
Respondents could give multiple responses, but only their first response was analysed. Fewer than 2% of respondents reported using a supportive group meeting, a stop smoking programme other than Quitline, their GP or practice nurse, other health professionals, friends and family, herbal cigarettes, the internet, a texting service, or a self-help book.

<sup>10</sup> Respondents who had made a serious quit attempt (lasting 24 hours or longer) in the past two weeks were asked in relation to that attempt, 'what, if any, help, programmes, or products have you used to help you quit?'

## FUTURE ITERATIONS OF THE NZSM

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For the 2018/19 NZSM survey year, recruitment and surveying of respondents will occur via an online platform rather than by telephone. This change reflects the increasing difficulty and cost associated with telephone-based recruitment and interviewing of participants, and will allow for a more efficient method of recording the data.

## APPENDIX 1: DETAILED METHOD INFORMATION

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### RECRUITMENT

**Non-attempters** and **recent quit attempters** were recruited from UMR Research’s telephone-based omnibus survey. The telephone omnibus ran fortnightly, and screened prospective respondents for their smoking status and recent quit attempts. People who were eligible to take part in the NZSM and gave permission to be re-contacted formed the sample pool for these two groups. These potential respondents were posted an invitation describing the aim of the NZSM and what would be required from them should they agree to participate. They were also informed of their right to opt out from the study at any time. Upon providing informed consent over the telephone, potential respondents were then re-screened for their current smoking status and recent quit attempt status to determine their eligibility for the NZSM interview.

Because of the low prevalence of **serious quitters** at a population level, this sample was recruited through the national Quitline client database. Each fortnight, Quitline supplied the names and contact details of a random sample of callers who had recently contacted the Quitline and given prior consent to be contacted by a third-party company or institution for research purposes. Those potential respondents were subsequently contacted by UMR Research over the telephone and invited to take part in the NZSM.

The study was designed so that at least ten respondents from each quota group were replaced each fortnight, thereby ensuring that new respondents were introduced regularly. This process was managed by excluding those who had refused or had already completed six interviews. Where fewer than 150 respondents from the previous fortnight could be re-interviewed, additional first-time respondents were recruited to ensure 180 interviews were achieved each fortnight.

Respondents were **incentivised** by entry into a prize draw at the end of each quarter, with the number of chances of winning determined by the number of interviews the respondent had completed. One \$250 voucher at a retail store was offered as the prize per quarter.

### RESPONSE RATE

The response rate for first-time respondents and the attrition rate for repeated respondents are provided in Table 7. Note that the response rate for the serious quitter sample is typically lower than that for the non-attempter/recent quit attempter samples.

Table 7. Response rates (for first time respondents) and attrition rates (for repeated respondents), by smoking status

	Non-attempters and recent quit attempters	Serious quitters
Response rate (%)	90	73
Attrition rate (%)	10	19

## ACKNOWLEDGEMENTS

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