Attitudes towards smoking in Wellington

Report on the 2015 smoke-free survey

WCC Research and Evaluation team

Absolutely Positively Wellington City Council
Me Heke Ki Pōneke

Contents

List of tables and figures

Executive summary

Background
An online survey was conducted to gather evidence to inform Wellington City Council's smoke-free initiatives, specifically investigating:

1. Current awareness of existing smoke-free locations in Wellington City,
2. Attitudes towards smoking in public amongst the population, and
3. Support for various locations in the city becoming smoke-free, including the possible outcomes of such a change in terms of visitor numbers to these locations.

The sample of 1,329 responses was post-weighted to match the wider population of Wellington region on age, gender and current smoking status. After this post-weighting, 12% of the sample were current smokers, 22% ex-smokers and 66% non-smokers (never smoked). Just over half were females (52%).

For context, areas in Wellington City that are currently smoke-free include:

- Children's playgrounds (including skate parks),
- Sports fields,
- Midland park, and
- Cable car lane (the only area in Wellington City with a smoke-free bylaw; this area was not covered in the current survey).

Awareness of smoke-free areas
Overall there was not a high level of awareness of current smoke-free areas in Wellington City amongst the sample. Only 7% of the sample correctly identified all three of the smoke-free areas listed in the survey. Of the total sample:

- 58% correctly identified children's playgrounds as currently being smoke-free,
- 32% correctly identified sports fields, and
- 12% correctly identified Midland Park.

Over a quarter of the sample believed that no areas around Wellington City were currently smoke-free.

Current smokers are generally more aware of smoke-free areas in the city compared to non-smokers, and in addition tend to believe smoke-free areas are more wide-reaching than they actually are. The proportion of smokers who correctly identified the smoke-free areas listed in the survey was still less than optimal (e.g. 73% for playgrounds, 47% for sports fields and 18% for Midland Park).

Attitudes towards smoking in public

Of the total sample, the majority (84%) supported Wellington becoming increasingly smoke-free, and around three-quarters disagreed with the statement "Smoking is a personal choice and should not have restrictions placed on it" (11% were neutral and 10% agreed). Smokers had less negative attitudes towards smoking in public compared to non-smokers; however a higher proportion of current smokers supported Wellington becoming increasingly smoke-free (44%) than did not (38%).

Current smokers were less consistent in their attitudes towards smoking in public compared to non-smokers. The majority of non-smokers scored high on an attitudes towards smoking scale (indicating they had negative attitudes towards smoking in public), whereas current smokers were almost evenly split between low, medium and high scores on this scale. 35% of current smokers reported feeling frustrated when someone smoked near them while dining outside at a restaurant (compared to 87% of non-smokers), and one-quarter reported frustration when someone started smoking near them when seated outside (compared to 87% of non-smokers).

Just over half of current smokers (53%) agreed that smoking should be banned in all outdoor places that children are likely to go. The majority (87%) of non-smokers agreed. A third of all smokers disagreed that smoking is a personal choice and should not have restrictions placed on it (compared to 80% of non-smokers).

Support for smoke-free initiatives

Wellington City locations that are not already smoke-free with high support amongst the sample for being smoke-free include:

- Entrances of buildings accessed by the public (89%)
- Bus stops (82%)
- Botanic gardens (74%)
- Otari-Wilton's reserve (73%) and
- Other nature reserves (72%).

Support for outdoor restaurant dining areas being smoke-free was higher (68%) than for outdoor bar areas (50%). Beaches and coastal areas have support from 52% of the sample for being smoke-free, and Oriental Bay by 48%. Retail areas (e.g. The Golden Mile, Cuba Street, and the waterfront) range in support from 46%-53%[1]. All urban parks and squares have clear majority support for being smoke-free (ranging from 62%-69%).

Non-smokers were significantly more likely than smokers to want each location listed in the survey to be smoke-free. The discrepancy in views between the two groups was greatest for locations such as outdoor bar and restaurant dining areas, parks, coastal areas and busy city streets (such as the Golden Mile). There was majority smoker support for building entrances, bus stops and botanic gardens/reserves being smoke-free.

[1] The waterfront is a mixed retail and recreation area.

Possible effects of changes

Net gains in the proportions of people predicting they would be likely to visit are expected for all the locations listed in the survey with a change to being smoke-free. The proportion of people predicting they would be more likely to visit minus those who would be less likely ranges from a minimum of 34% for Te Kopahou (Red Rocks Reserve) to a maximum of 62% for outdoor restaurant dining areas. Only between 3% and 9% of the sample suggested they would be 'less' or 'much less' likely to visit the locations listed if they were to become smoke-free.

Almost all non-smokers predicted they would be unaffected or more likely to visit all locations if they were to become smoke-free (ranging from 96%-99%), resulting in expected net gains in visiting likelihood of between 35% and 64% for this group (who made up 88% of the sample). The majority of current smokers also predicted they would be unaffected or more likely to visit each location listed, however this was much more variable than for non-smokers (ranging from 54%-88%). For many locations a decrease in smoker likelihood of visiting was predicted. For each of the locations listed in the survey, smokers were significantly more likely to report that they would be 'less' or 'much less' likely to visit each location compared to non-smokers.

Enforcement

Opinions amongst the sample were very mixed with regard to whether or not smoke-free signage is enough to prompt people not to smoke in smoke-free areas.

There was high support within the sample for smoke-free areas being enforced with a bylaw and fine, with three-quarters expressing support for this option and only 14% disagreeing. 43% of smokers supported this option.

Almost two-thirds of the sample agreed that smoke-free signage in Wellington should have Quitline information included on it and only 11% disagreed (45% of smokers agreed).

Additional concerns raised

The largest proportion of general comments made on the survey supported Wellington and/or New Zealand becoming increasingly smoke-free. A number of concerns were also raised by respondents, the most prominent being:

- Support for balance and tolerance in smoke-free initiatives, including supporting smokers to quit,
- A dislike of smoking or a concern over being exposed to others' smoking, and
- A dislike of cigarette butt litter and a concern for the environment, including a call to introduce fines.

Conclusions

The following conclusions can be drawn from the survey findings:

1. **There is at present a lack of awareness of current smoke-free areas in Wellington City:** Further promotion of current smoke-free outdoor areas is recommended, including a designated 'smoke-free' page on the Wellington City Council website. A review of current smoke-free signage is also recommended.

2. **Current designated smoke-free areas may not be free of smoking in reality (more data is required):** Observational data will be collected by the University of Otago at a number of outdoor public spaces over the 2015/2016 summer.
3. **There is strong support for expanding smoke-free areas in Wellington City:** Particularly so for the areas outside of buildings accessed by the public, bus stops and nature reserves. There was total sample *and* smoker majority support for these areas being smoke-free. Support amongst the community also appears to be growing when comparing back to similar research from 2012.
4. **A change to being smoke-free is likely to have positive impacts on visitor numbers:** With net gains to predicted likelihood of visiting ranging between 34% and 62%. Only between 3% and 9% of the total sample suggested they would be 'much less' or 'less' likely to visit the range of outdoor locations listed in the survey. Outdoor restaurant and bar areas were the most polarising, with the largest proportions of people both saying they would be 'more' or 'much more' likely to visit *and* 'much less' or 'less' likely to visit of all of the locations listed (resulting in the highest predicted increased likelihood of visiting of all the locations listed in the survey for these locations).
5. **There is support for enforcement of smoke-free initiatives:** Three-quarters of the sample supported the option of smoke-free initiatives being enforced with a bylaw and fine.

It is recommended that these findings are taken into account in conjunction with the findings of the observational work to be completed over the 2015/2016 summer by the University of Otago when reviewing the Council's smoke-free initiatives.

Aim

The aim of the 2015 smoke-free survey was to provide evidence-based advice to inform Wellington City Council's (WCC) smoke-free initiatives. The survey had three specific purposes:

1. To investigate current awareness of existing smoke-free locations in Wellington City amongst the population,
2. To investigate attitudes towards smoking in public amongst the population, and
3. To investigate support for various locations in Wellington City becoming smoke-free, including the possible outcomes of such a change in terms of visitor numbers to these different locations.

For context, areas in Wellington City that are currently smoke-free include:

- Children's playgrounds (including skate parks),
- Sports fields,
- Midland park, and
- Cable car lane (the only area in Wellington City with a smoke-free bylaw; this area was not covered in the current survey).

Method

A short online survey was developed in collaboration between the WCC Policy and Research teams and the University of Otago. Appendix A provides a copy of the survey items. The survey was sent to members of the Research and Evaluation team's secondary participant database via email (N=3,696)[2] in early September 2015. One reminder email was sent 5 days after the initial invitation, and data collection was open for 10 days in total. The reminder email specifically asked current smokers and males to complete the survey, as these groups were underrepresented after the initial invitation.

A small prize draw for five $50 New World grocery vouchers was run to help incentivise a high response rate. In total 1,343 people responded to the survey, resulting in a response rate of 36%. Two respondents were removed from the sample as they had not visited Wellington City in the previous 12 months.

Analysis

The data was post-weighted to match the Wellington population on smoking status, gender and age group based on figures from the 2013 Census. This was performed to ensure the sample was as representative of the wider population as possible, therefore reducing potential biases in the data.

[2] This database consists of participants who have opted-in when asked whether they would be happy to be contacted in the future regarding research opportunities from Wellington City Council on surveys the Research and Evaluation team has sent out over the past few years. Examination of the data revealed that 16 people had completed the survey who were not on the secondary panel (e.g. were forwarded the link from a contact). These 16 cases were inspected and the decision was made to include these cases in the sample as they were all deemed to be valid responses, and the original sample was opt-in, meaning the method was not altered greatly.

The data presented below is therefore representative of the Wellington population on these demographics. After this post-weighting exercise, the total sample size was 1,329.

Where appropriate, statistical tests were performed to test whether differences between groups were statistically significant. Where data was categorical, Pearson's Chi-squared test of independence was used. Where mean scores were being compared, independent samples *t* tests were used. Statistics are presented in footnotes throughout the report, with the exception of long lists of statistics which are reported in Appendix B (these are noted). Where results are broken down by current smoking status, current regular and occasional smokers are combined into the 'current smokers' category, and ex-smokers and non-smokers are combined into the 'non-smokers' category.

Qualitative comments received were coded into themes and summaries of these are provided in the relevant sections of the report below. Where a comment fitted into more than one theme (e.g. the respondent raised multiple points), the comment was counted under each relevant theme.

Sample

Table 1 presents the weighted breakdown of smoking status, gender and age group for the sample. The post-weighting performed means that the sample matches the Wellington population perfectly in relation to the proportions falling into each category for these demographics. All further data presented in the following report has this post-weighting variable applied.

Chi-squared analysis revealed that current smokers were significantly more likely to be younger (e.g. under 30 years of age)[3] and were significantly less likely to: be older than 64 years, care for children under the age of 16 years[4], and identify as of Asian descent[5]. There were no differences between current smokers and non-smokers on gender[6]. The characteristics of the current smokers in the sample appear to generally match the wider population of smokers in New Zealand, based on the data available from Statistics New Zealand[7].

Table 1. Smoking status, gender and age group breakdown (weighted to match wider population based on 2013 Census data)

	Frequency	Percent
Smoking status		
Non-smoker (never smoked)	873	65.7%
Ex-smoker	297	22.3%
Current smoker[8]	159	12.0%
Occasional smoker	*90*	*6.7%*
Regular smoker	*69*	*5.2%*
Total	1329	100.0%
Gender		
Male	625	47.0%
Female	691	52.0%
Gender diverse	7	0.5%
Prefer not to say	7	0.5%
Total	1329	100.0%
Age group		
29 years or younger	376	28.3%
30 to 39 years	231	17.4%
40 to 49 years	243	18.3%
50 to 64 years	277	20.8%
65 years or older	295	14.7%
Prefer not to say	7	0.5%
Total	1329	100.0%

[3] $\chi^2(4, N = 1322) = 12.5, p < .05$
[4] $\chi^2(1, N = 1323) = 5.1, p < .05$
[5] $\chi^2(1, N = 1329) = 6.3, p < .05$
[6] $\chi^2(1, N = 1316) = 2.1, p > .05$
[7] See: http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-social-indicators/Home/Health/tobacco-smoking.aspx
[8] In the survey participants were asked whether they were occasional or regular smokers, however this distinction is not available in the 2013 Census data tables. The overall proportion of current smokers (e.g. regular smokers plus occasional smokers) was therefore weighted to match the proportion of smokers in the wider population (based on the Census data).

Other demographic measures collected in the survey are presented in Table 2 (note that the sample was not weighted based on these characteristics). As can be seen, the majority (79.8%) of the sample identified as NZ European/Pakeha, with 8.2% identifying as New Zealanders or Kiwis. Approximately 6% of the sample each identified as of Māori and Asian descent. Pacific peoples made up only a small proportion of the sample (1.2%). When comparing to 2013 Census data, it is evident that those of Māori, Asian and Pacific descent are underrepresented in the sample[9].

In regards to caring for children, 43.5% reported regularly caring for children under the age of 16 years.

The vast majority of the sample were from Wellington region (98.4%), with Wellington City residents making up 85.5% of the total sample. Those who lived outside of Wellington City were asked how frequently they visited the city over the previous 12 months. Of the 225 people who resided outside of Wellington City, 39.1% visited daily, 23.6% visited several times a week, 10.7% visited weekly, 9.8% visited several times a month, 10.7% visited monthly and 6.2% visited less than monthly. As previously stated, only 2 participants had not visited Wellington City in the previous 12 months, and these cases were removed from the analysis.

[9] See: http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-a-place.aspx?request_value=14322&tabname=Culturaldiversity.

Table 2. Ethnicity, dependent children and area of residence breakdown

	Frequency	Percent
Ethnicity[10]		
NZ European/Pakeha	1061	79.8%
Māori	83	6.2%
Pacific Islander	16	1.2%
Asian	85	6.4%
European (other)	110	8.2%
New Zealander/Kiwi	18	1.3%
Other[11]	53	4.0%
Prefer not to say	7	0.5%
Total	1329	-
Dependent children		
Regularly care for children under 16 years of age	576	43.5%
Do not regularly care for children under 16 years of age	747	56.5%
Missing	6	-
Total	1323	100.0%
Area of residence		
Wellington City	1136	85.5%
Porirua	61	4.6%
Kapiti	16	1.2%
Lower Hutt	72	5.4%
Upper Hutt	17	1.3%
Wairarapa	6	0.4%
Other[12]	21	1.6%
Total	1329	100.0%

[10] Note that participants could select all that apply, meaning the percentages do not add to 100%.
[11] 'Other' enthicities specified included: African, American, Indian, Arabic, Australian, Canadian, Dutch, English, Ethiopian, Greek, Jewish, Malenesian, Middle Eastern, Romanian, South American and Zambian.
[12] 'Other' regions specified included: Auckland, Bay of Plenty, Canterbury, Central Otago, Horowhenua, Manawatu, Otago, Taranaki and New Zealand.

Findings

Awareness amongst population of current smoke-free locations

Figure 1 presents the proportions of the total sample who believed the different locations listed in the survey around Wellington City were currently smoke-free (ordered by highest proportion to lowest). For reference, areas of Wellington City that are currently smoke-free are indicated with an asterisk and are textured. These include:

- Children's playgrounds(including skate parks),
- Sports fields, and
- Midland park.

It is clear that there is currently a low level of awareness of smoke-free areas in Wellington City. Just over half of the sample correctly believed that children's playgrounds were smoke-free, and less than a third correctly thought that sports fields were smoke-free. Over a quarter of the sample believed that no areas around Wellington City were currently smoke-free. Only 7% of the sample (N=96) correctly identified all three smoke-free areas listed in the survey[13]. 37% (N=498) correctly identified all of the areas that are not smoke-free that were listed. Only two participants correctly identified all of the smoke-free areas listed *and* correctly identified all of the areas that are not smoke-free. This is consistent with findings from Auckland, with a recent post-policy review finding there was low overall awareness amongst the public of new smoke-free outdoor spaces (see Wyllie, 2014[14]). In this study, 5% of the sample correctly mentioned all of the seven outdoor areas that are currently smoke-free in Auckland.

Nearly 40% of the sample believed that entrances of buildings accessed by the public were smoke-free, which may imply there was a misunderstanding of what this was referring to (e.g. the area directly outside the front entrance of a building, as opposed to the actual interior of the entrance). An alternative explanation is that people may believe that smoke-free signs on doors refer to the entrance space, as well as the building itself.

[13] Note that seven participants believed that all of the areas listed were smoke-free (1% of the total sample). All seven participants were non-smokers.

[14] Wyllie, A. (2014). *Public response to introduction of Smokefree outdoor public places in Auckland Council region*. Report prepared for Cancer Society Auckland Division.

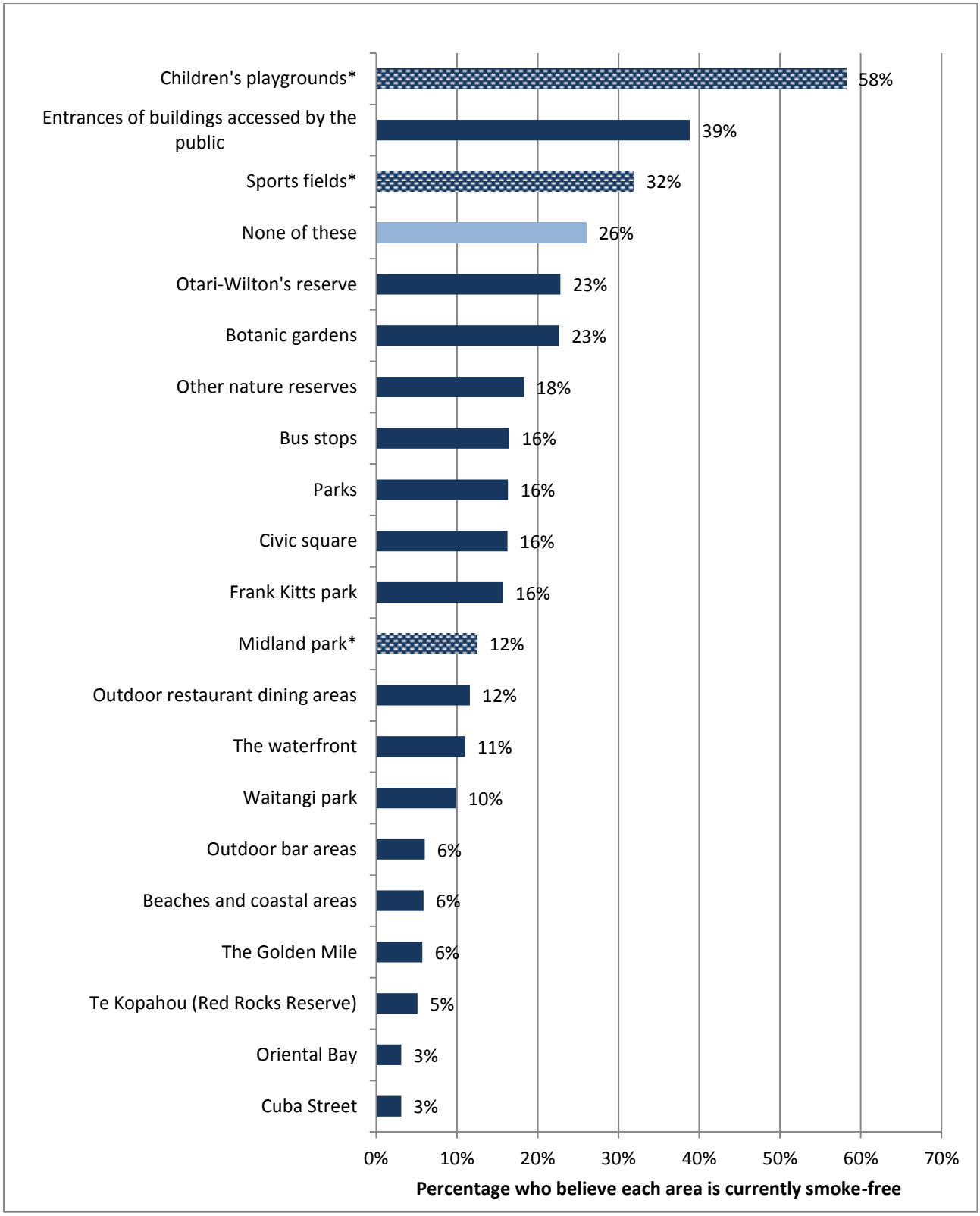

Figure 1. Percentage of sample who believe various areas in Wellington City are currently smoke-free (total sample)

Figure 2 presents this data broken down by current smoking status, with the total sample data presented for reference (those areas designated with an asterisk are currently smoke-free). Chi

square analysis revealed that current smokers were significantly more likely to correctly believe that the following locations were smoke-free:

- Children's playgrounds[15]
- Sports fields[16]
- Midland park[17]

They were also significantly more likely to incorrectly believe that several other locations were smoke-free:

- Otari-Wilton's reserve[18]
- Other nature reserves[19]
- Parks[20]
- Waitangi park (NB: there are skatepark and playground areas in this park, which are smoke-free)[21]

In contrast, they were significantly less likely to believe the following locations were smoke-free:

- Outdoor bar areas[22]
- Cuba Street[23]

13% of current smokers (N=21) correctly identified all three smoke-free areas, compared to 6% (N=75) of non-smokers. Smokers were also significantly less likely to believe that none of the listed locations were currently smoke-free compared to non-smokers[24].

This comparison suggests that current smokers are generally more aware of current smoke-free outdoor areas in Wellington City compared to non-smokers, and tend to believe these smoke-free areas are more wide-reaching than they actually are. This fits with findings from Auckland, where it has been found that smokers are more likely to notice smoke-free signage compared to non-smokers (Wyllie, 2014).

While this is a positive finding, the overall proportions of both current smokers and non-smokers who believe each smoke-free area is actually smoke-free are less than desirable. Further promotion of current smoke-free outdoor areas would therefore be beneficial. A page on the Wellington City Council website clarifying which areas are smoke-free is recommended, as the researchers were unable to locate such a page at the time of writing this report.

One point which should be noted was raised in a comment received from a respondent to the survey. The comment implies that there could be greater knowledge of which areas in Wellington

[15] $\chi^2(1, N = 1329) = 17.7, p < .001$
[16] $\chi^2(1, N = 1329) = 17.8, p < .001$
[17] $\chi^2(1, N = 1328) = 4.5, p < .05$
[18] $\chi^2(1, N = 1328) = 11.7, p < .001$
[19] $\chi^2(1, N = 1328) = 4.8, p < .05$
[20] $\chi^2(1, N = 1328) = 6.6, p < .01$
[21] $\chi^2(1, N = 1328) = 7.2, p < .01$
[22] $\chi^2(1, N = 1329) = 5.5, p < .05$
[23] $\chi^2(1, N = 1329) = 5.8, p < .05$
[24] $\chi^2(1, N = 1329) = 14.0, p < .001$

City are currently designated smoke-free than is reflected in the survey findings; due to beliefs or experience that these designations are not respected, knowledge of which areas are smoke-free could be underreported:

> *"Not sure on the question re areas that are already smoke free. If there are bylaws that say they are, then they simply aren't ever enforced in anyway and so can't be said to be smoke-free."*

A wording change in any future surveys to specifically highlight the topic of interest (e.g. areas that are currently designated to be smoke-free) could be useful to explore this issue in further depth (e.g. whether or not the public knows that certain areas are supposed to be smoke-free, rather than whether or not these areas are free from smoking in reality). The University of Otago will also be collecting observational data at various smoke-free outdoor locations across the city over the 2015/2016 summer, which will provide an evidence-base on which to assess whether or not individuals are still smoking in designated smoke-free areas.

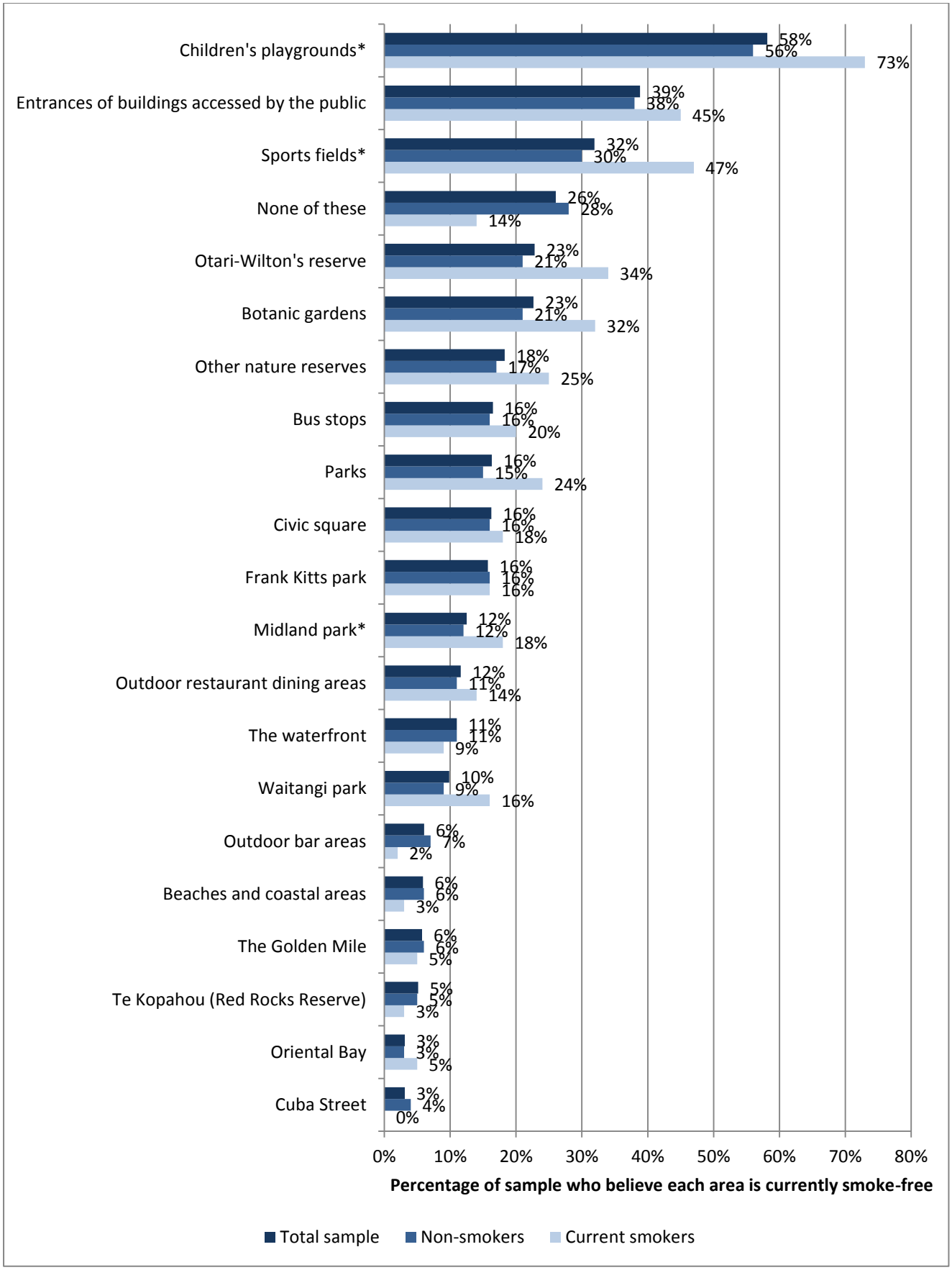

Figure 2. Percentage of sample who believe various areas in Wellington City are currently smoke-free (split by current smoking status)

Attitudes towards smoking

A number of items were included in the survey to explore attitudes towards smoking. Figure 3 presents responses to these items for the total sample. This data reveals that respondents generally have negative attitudes towards smoking in public places, and the majority (84%) support Wellington becoming increasingly smoke-free.

These five items were formed into a single scale (with the final item reversed) with a Cronbach's alpha of .92, indicating that the scale has 'excellent' internal consistency (or reliability). This scale has a minimum score of 5 and a maximum score of 25 (mid-point = 15.5). The mean score on the scale for the sample was 21.2 (minimum = 5, maximum = 25, *SD*=4.8), indicating that overall the sample had negative attitudes towards smoking in public. This scale is referred to as the 'attitudes towards smoking' scale throughout the rest of this report.

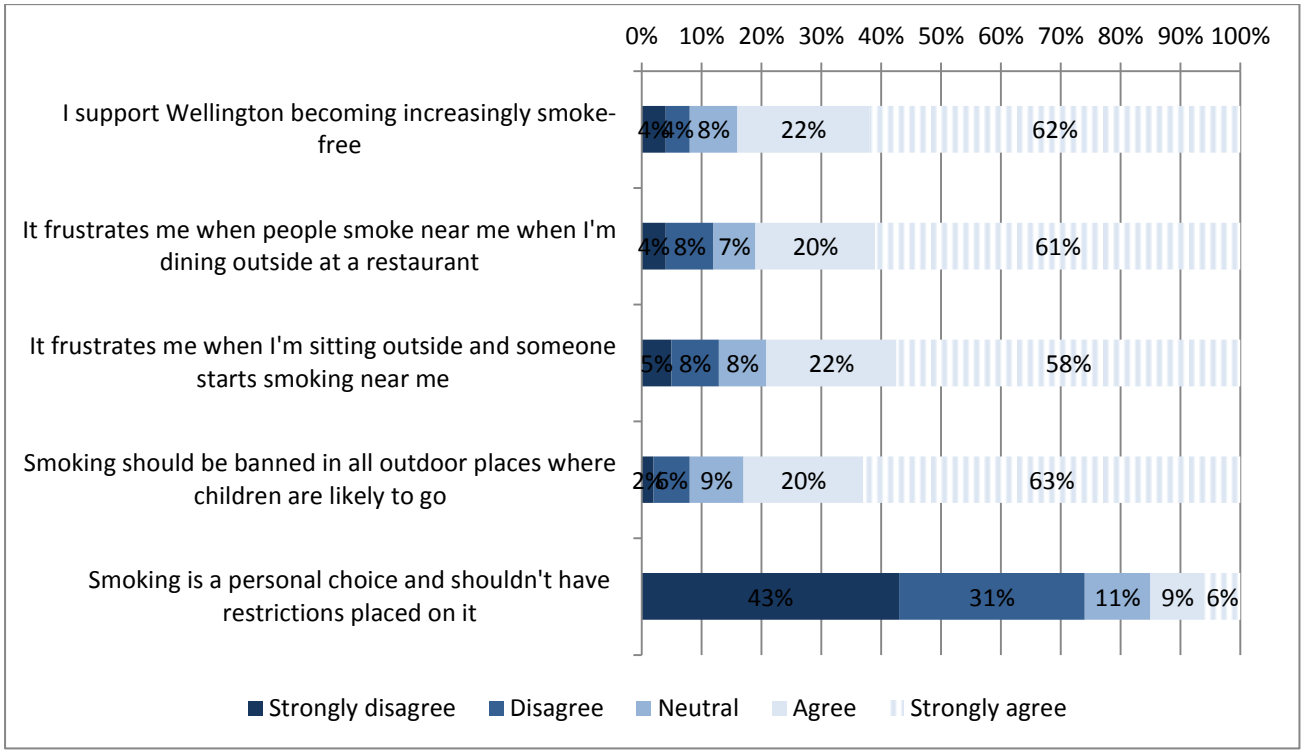

Figure 3. General attitudes towards smoking in public (total sample)

Table 3 presents the results of independent samples *t* tests comparing mean scores for current smokers and non-smokers on the five individual smoking attitudes items[25]. As can be seen, current smokers scored significantly lower than non-smokers on all items, with the exception of the final item which was worded in the opposite way to the other items (e.g. gauged support for smoking as opposed to support for being smoke-free). Therefore, smokers had less negative attitudes towards smoking in public compared to non-smokers on all items.

Note that as these items are on a 5-point scale, a score of 3 is neutral, with a mean score below this mid-point representing disagreement with the item or statement on average and a mean score above this mid-point representing agreement with the statement on average. Current smokers therefore scored neutral on the item gauging support for Wellington becoming increasingly smoke-

[25] See Appendix B for these *t* test statistics.

free, were very close to neutral with regards to frustration caused by someone smoking close by at an outdoor dining facility, were below neutral with regards to frustration caused by someone smoking close by when sitting outside, were above neutral for protecting children from second-hand smoke in public and were just above neutral in their views of smoking being a personal choice. Non-smokers in contrast were close to the highest possible agreement score on average for all items, with the exception of the final item, where they were closer to disagreement on average.

Table 3. Comparison of mean scores on individual smoking attitudes items for current smoking status

		N	Mean score	SD	Sig.
I support Wellington becoming increasingly smoke-free	Non-smokers	1160	4.5	0.9	***
	Current smokers	159	3.0	1.4	
It frustrates me when people smoke near me when I'm dining outside at a restaurant	Non-smokers	1161	4.5	0.9	***
	Current smokers	159	2.8	1.4	
It frustrates me when I'm sitting outside and someone starts smoking near me	Non-smokers	1167	4.4	0.9	***
	Current smokers	159	2.5	1.3	
Smoking should be banned in all outdoor places where children are likely to go	Non-smokers	1147	4.5	0.9	***
	Current smokers	159	3.5	1.3	
Smoking is a personal choice and shouldn't have restrictions placed on it	Non-smokers	1139	1.9	1.1	***
	Current smokers	154	3.3	1.3	

*** p<.001

Figures 4-8 present a categorical breakdown for these five items, comparing current smokers and non-smokers.

The vast majority (89%) of non-smokers support Wellington becoming increasing smoke-free. A higher proportion of current smokers (44%) supported Wellington becoming increasingly smoke-free than did not (38%).

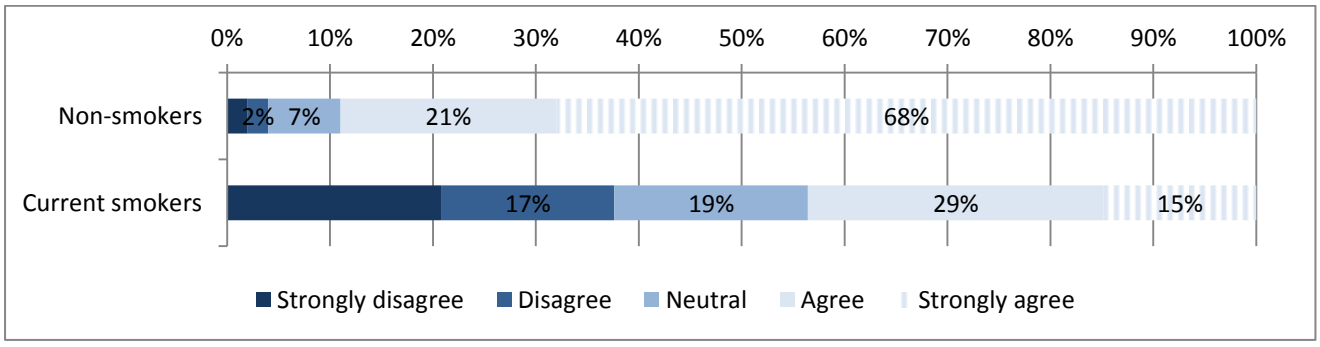

Figure 4. "I support Wellington becoming increasingly smoke-free" by current smoking status

Of non-smokers, 87% expressed a feeling of frustration with others smoking near them while dining outside at a restaurant. 35% of current smokers are also frustrated by this.

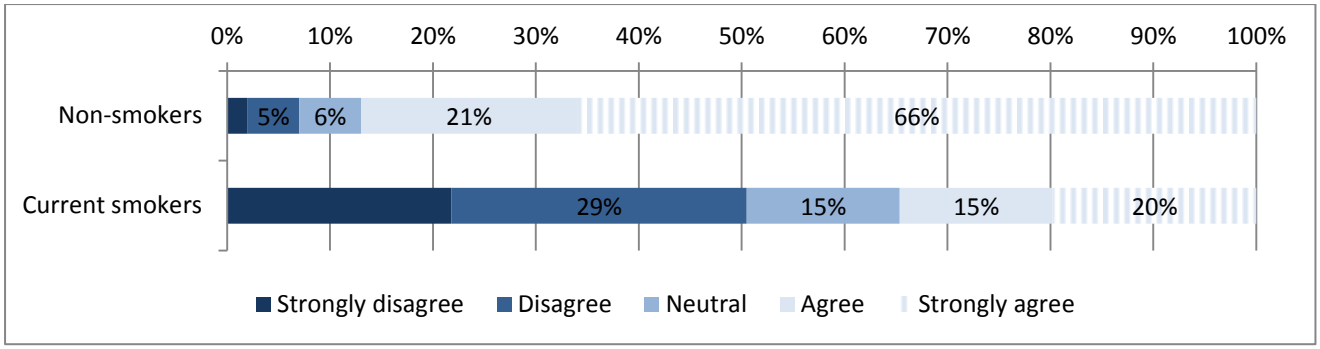

Figure 5. "It frustrates me when people smoke near me when I'm dining outside at a restaurant" by current smoking status

Again, 87% of non-smokers reported feeling frustrated when someone smokes nearby them when they are sitting outside. One-quarter of current smokers are frustrated by this.

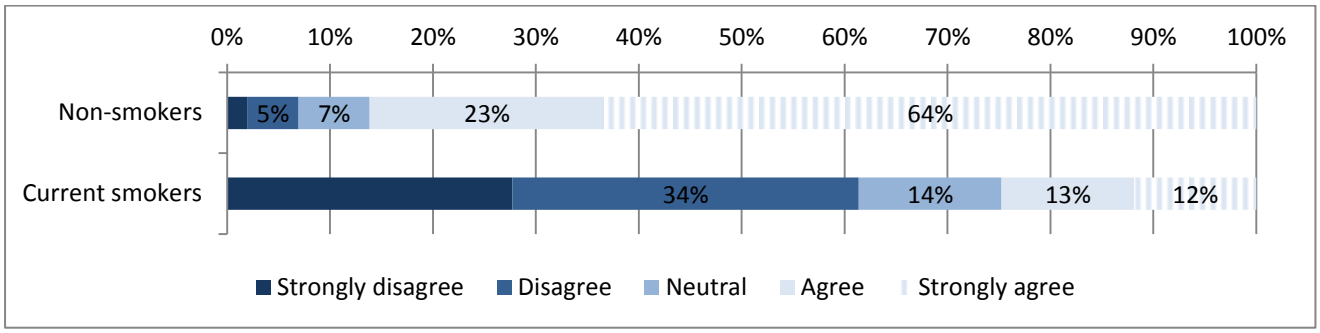

Figure 6. "It frustrates me when I'm sitting outside and someone starts smoking near me" by current smoking status

87% of non-smokers believed smoking should be banned in all outdoor places children are likely to go. Just over half (53%) of current smokers agreed to this notion.

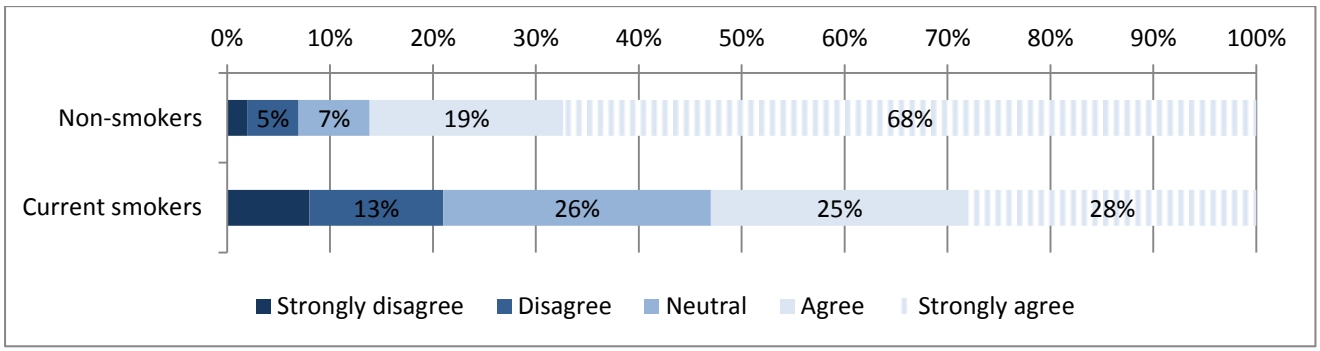

Figure 7. "Smoking should be banned in all outdoor places where children are likely to go" by current smoking status

Only 10% of non-smokers agreed that smoking is a personal choice that shouldn't have restrictions placed on it (80% disagreed). Just over half (53%) of current smokers supported this notion, where as a third disagreed.

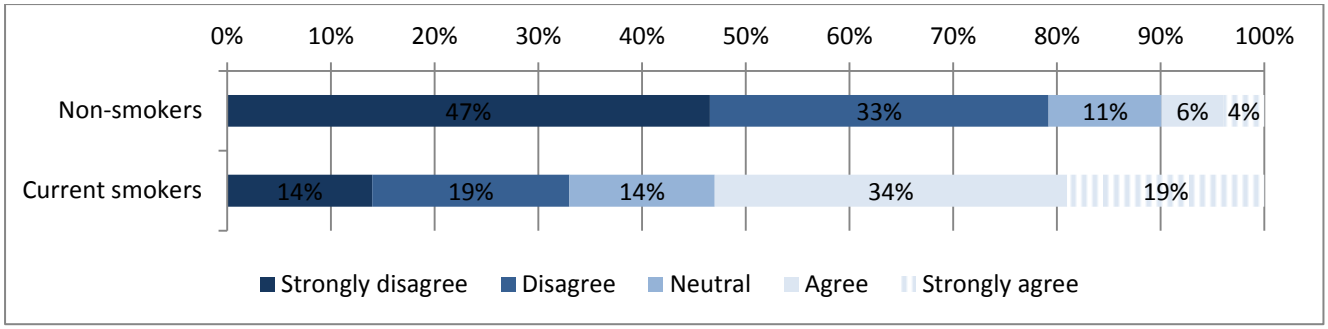

Figure 8. "Smoking is a personal choice and shouldn't have restrictions placed on it" by current smoking status

Scores on the attitudes towards smoking scale formed using these five items were also explored by current smoking status. An independent samples *t* test revealed that non-smokers scored significantly higher on this scale (*M*=22.1, *SD*=3.9) compared to current smokers (*M*=14.5, *SD*=5.7)[26], indicating non-smokers in the sample are more likely to lean towards smoke-free advocacy compared to current smokers (as is intuitive). However, given the high standard deviations for both groups, this data was explored in further depth.

Using this attitudes towards smoking scale, respondents were split into three discrete groups; those scoring low on the scale (a score of 11 and under), those scoring in the middle of the scale (a score of 12-17) and those scoring high on the scale (a score of 18 and above). Of the total sample, 7% (N=83) fell into the low score grouping, 12% (N=147) fell into the medium score grouping and 82% (N=1029) fell into the high score grouping. This is broken down by current smoking status in Figure 9.

This data reveals that smokers are much less consistent in their attitudes towards smoking in public places compared to non-smokers, with smokers being almost evenly split between the three 'smoking attitudes' groupings. Chi square analysis revealed that non-smokers were significantly more likely to fall into the high score grouping, whereas smokers were more likely to fall into the low and medium score bands[27]. Again this supports the notion that non-smokers have more negative views towards smoking in public compared to current smokers. However the data provides further insights into the variability in attitudes towards smoking within smokers particularly, but also non-smokers (with a small proportion of non-smokers fitting into the low and medium groupings). This data implies that some non-smokers may put the right to smoke above the right for other members of the public to protect themselves from second-hand smoke.

[26] $t(173.5) = 21.1$, $p < .001$
[27] $\chi^2(2, N = 1258) = 300.5$, $p < .001$

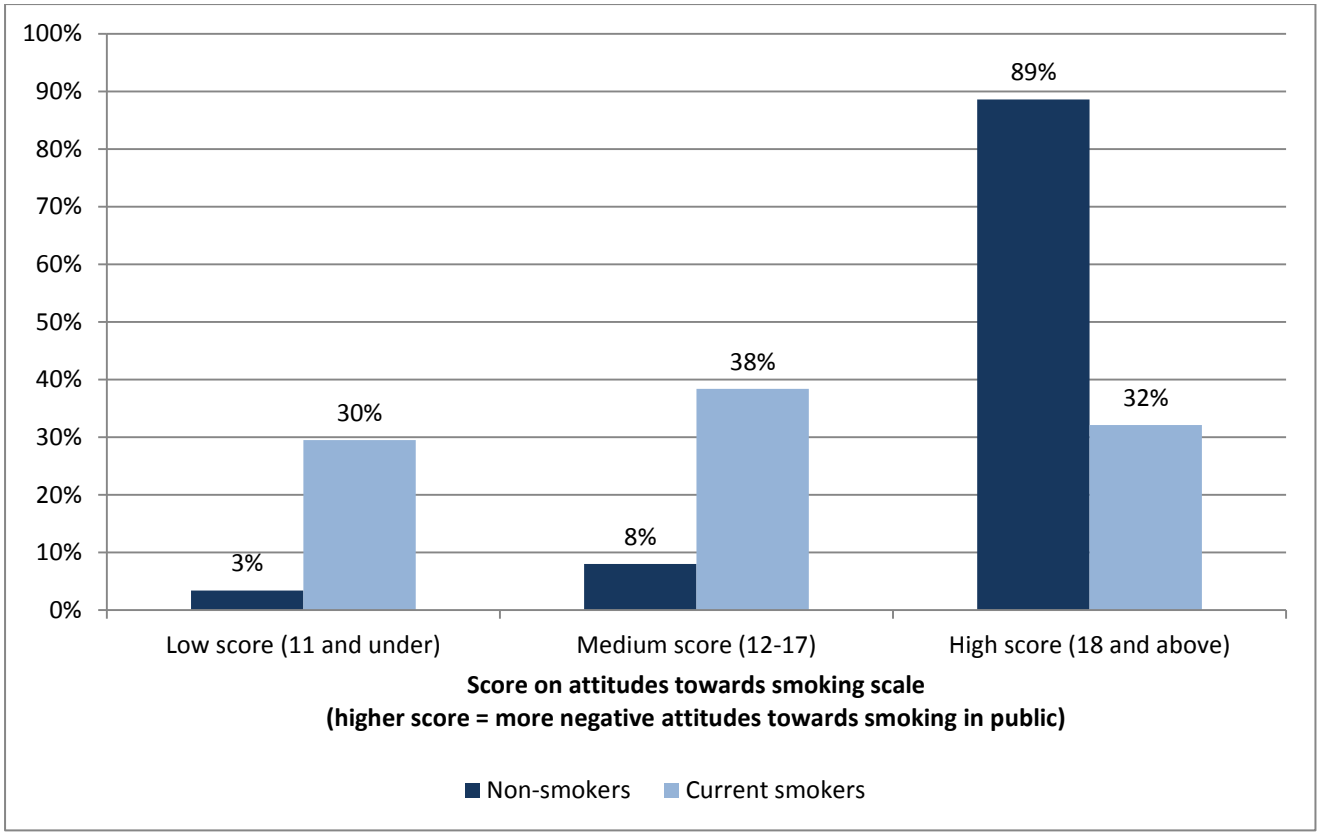

Figure 9. Smoking attitudes breakdown by current smoking status

Smoking status preferences for different locations

Figure 10 presents the preferences of the total sample for the smoking status of the various locations around Wellington City listed in the survey (ordered by highest proportion preferring the status to be smoke-free to least. Those areas that are already designated as smoke-free are again indicated by an asterisk). Encouragingly, children's playgrounds have support by 96% of the total sample for being smoke-free; a designation that has already been in place for a few years. Sports fields also have high support for being smoke-free, at 80% of the sample. Midland Park has slightly lower support for being smoke-free amongst the sample.

Locations that are not already smoke-free in Wellington City with high support amongst the sample for being smoke-free include:

- Entrances of building accessed by the public (89%)
- Bus stops (82%)
- Botanic gardens (74%)
- Otari-Wilton's reserve (73%) and
- Other nature reserves (72%).

Only two locations had support from less than half of the sample for being smoke-free: Oriental Bay and Cuba Street. Support for outdoor restaurant dining areas being smoke-free was higher (68%) than for outdoor bar areas (50%). Examination of the data reveals that there is consistency amongst locations of a similar function/nature. For example, beaches and coastal areas have support from

52% of the sample for being smoke-free, and Oriental Bay by 48%. Retail areas (e.g. The Golden Mile, Cuba Street, and the waterfront) range in support from 46%-53%, although the waterfront is a mixed retail and recreation area. All urban parks and squares have clear majority support (ranging from 62%-69%).

Overall this data suggests that WCC would have support from the wider population for increasing the number of smoke-free areas, particularly for areas outside public buildings, bus stops and nature reserves. There is also a majority smoker support for building entrances, bus stops and botanic gardens/reserves (see below for further details).

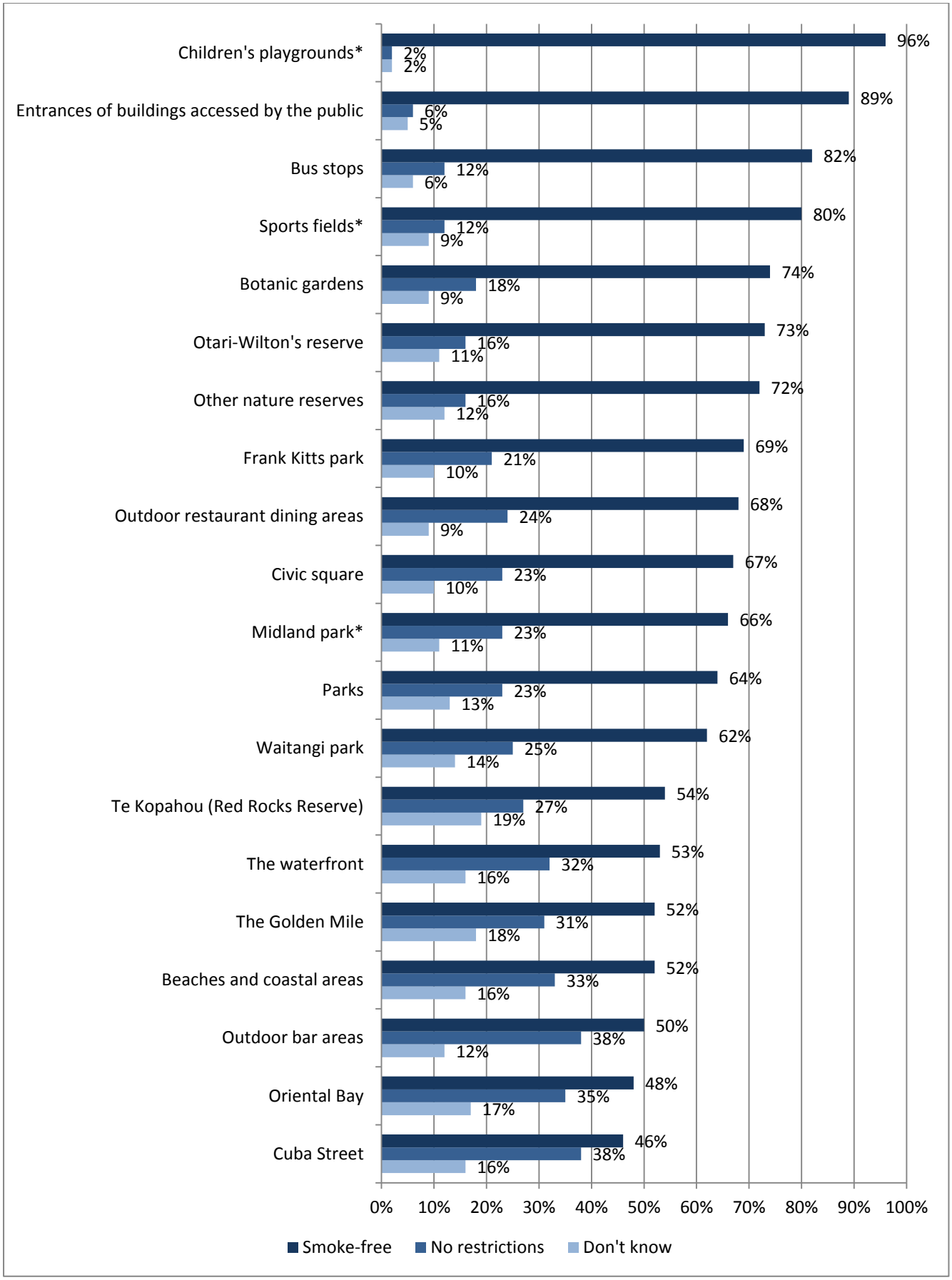

Figure 10. Preferences for the smoking status of various locations (total sample)

In total, just 11 respondents (0.8%) wanted none of the locations listed to be smoke-free. In contrast, 348 respondents (26.2%) wanted all of the locations to be smoke-free. Only 2 respondents were unsure about all of the locations (0.2%). The remaining 967 respondents (72.8%) were mixed (e.g. they wanted some locations to be smoke-free, but not others). Figure 11 presents a breakdown of these groupings by current smoking status[28]. As can be seen, just under a third of non-smokers suggested they wanted all the locations listed to be smoke-free. The vast majority of current smokers (96%) provided mixed responses (e.g. suggested some locations should be smoke-free, but not all).

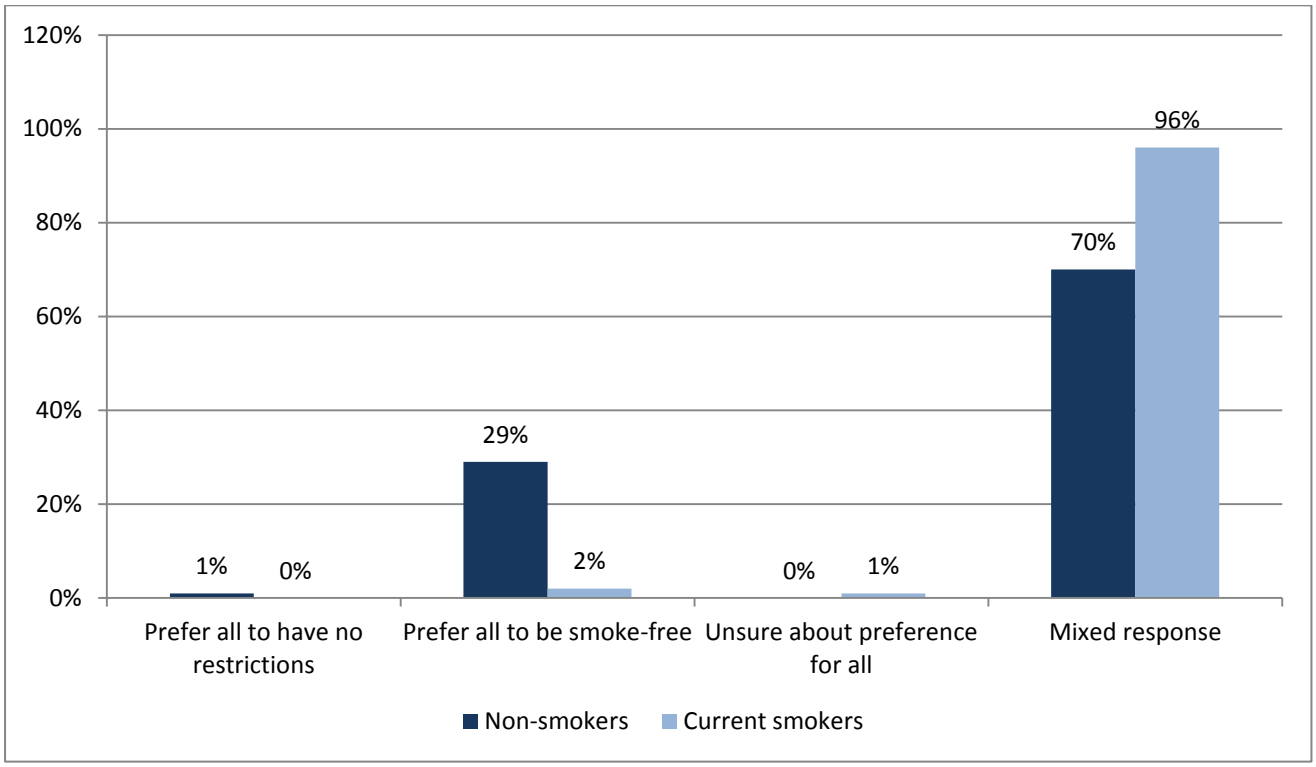

Figure 11. Overall preference break-down by current smoking status

Figure 12 presents preferences for each location broken down by current smoking status (current smoke-free areas indicated with an asterisk). Chi square analysis revealed that non-smokers were significantly more likely than current smokers to want each location to be smoke-free[29]. The discrepancy in views between the two groups was particularly large for outdoor bar and restaurant dining areas, parks, coastal areas and busy city streets (such as the Golden Mile).

[28] Note that Chi square analysis was not run on this data as the small sample sizes in some groups violated the assumption of cell counts being greater than 5.
[29] See Appendix B for these chi square statistics.

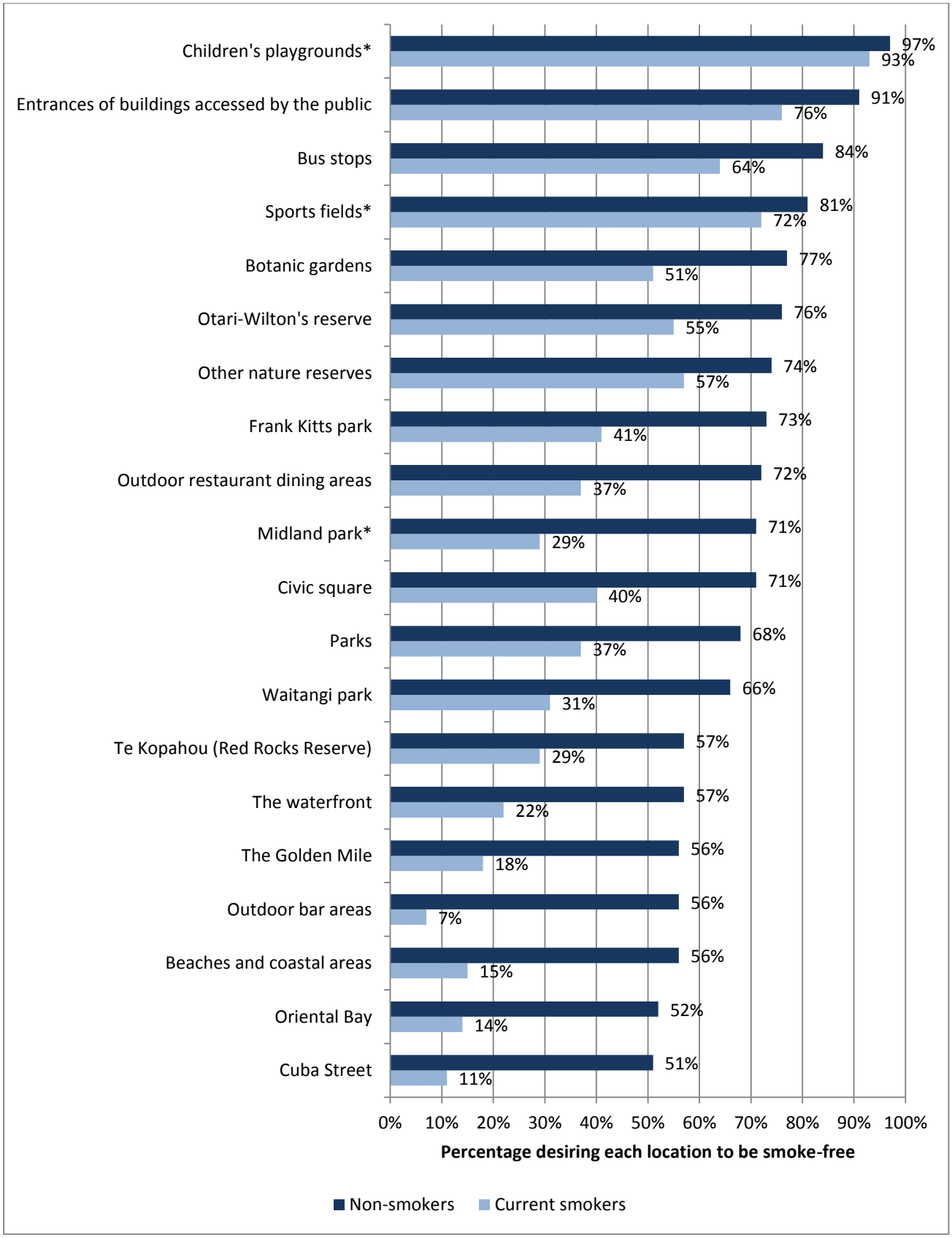

Figure 12. Preferences for the smoking status of various locations (split by current smoking status)

Comments on additional areas preferred to be smoke-free

In total, 251 people chose to leave a comment regarding additional areas that they would like to be made smoke-free. These comments were coded into themes for summary purposes. Table 13 below presents a breakdown on the number of comments received that fitted into each theme.

As can be seen, the greatest number of comments referred to making all public spaces in Wellington smoke-free (N=65). Public transport spaces (including train stations, bus stops, the airport, taxi stands and cable car stops) were the next most commonly mentioned (N=38). Educational facilities mentioned included those from preschool through to university, and 30 respondents brought these up. Medical facilities (e.g. doctors' practices and hospitals) were of interest to 22 respondents. Public amenities mentioned included around swimming pools, libraries, sports and recreational centres, stadiums, community centres, museums and halls (N=21).

Twenty respondents supported a total ban. In some cases this was clearly stated to mean tobacco being made illegal in New Zealand; however in other cases this was less clear (e.g. the respondent simply stated "*Everywhere*").

With regard to shopping areas and car parks, the following places were specifically mentioned by participants: supermarkets, shops, malls, markets, and parking buildings/lots. Visitor attractions specifically mentioned included the Zoo and Zealandia (both of which are already smoke-free). Chews Lane was specifically mentioned in one of the comments relating to enclosed pedestrian spaces.

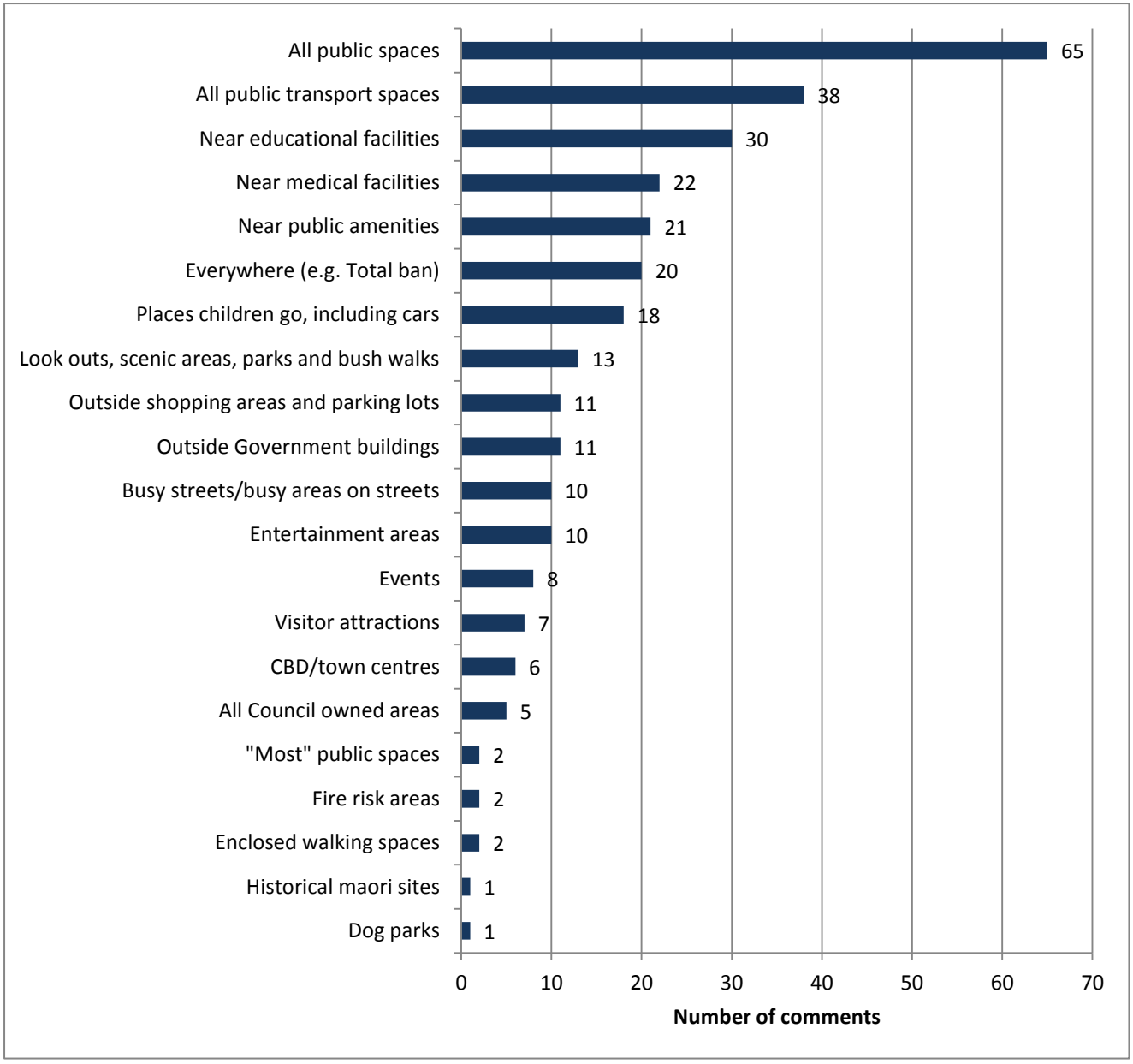

Figure 13. Comments received regarding additional areas respondents would like to be made smoke-free (N=251)

Likelihood of visiting different locations if smoke-free

Respondents were asked to rate the likelihood that they would visit different locations if they were smoke-free (assuming they were currently not smoke-free). In order to give some context to this information for outdoor restaurant and bar areas, respondents were first asked how frequently they currently visited these locations. This data is presented for the total sample in Figure 14, revealing that the majority of the sample visit both outdoor restaurant and bar areas at least occasionally.

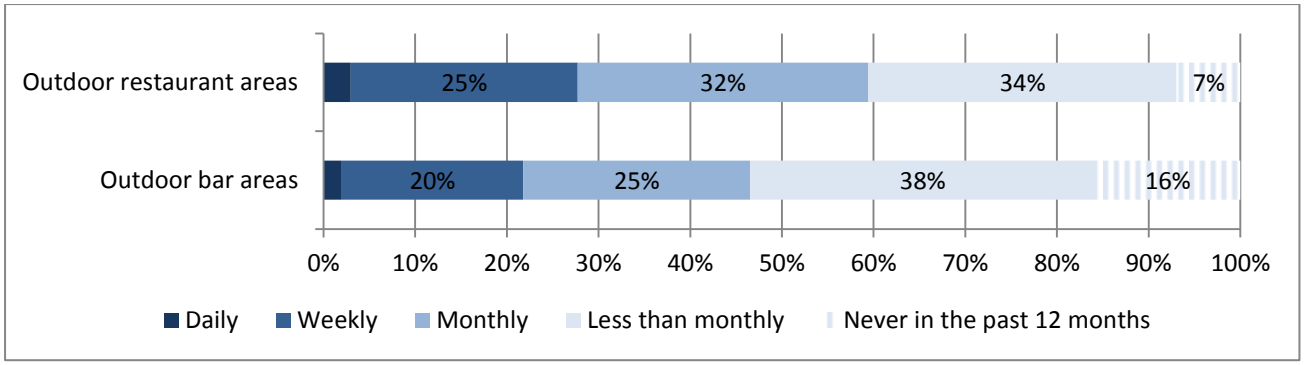

Figure 14. Frequency currently visit outdoor bar and restaurant areas (total sample)

This data was also broken down by current smoking status, to assess whether or not there were any differences between the two groups on the frequency with which they visit each. Figure 15 presents this breakdown for outdoor restaurant areas and Figure 16 presents the data for outdoor bar areas. Chi square analysis revealed that current smokers were significantly more likely to visit outdoor restaurant areas weekly, whereas non-smokers were more likely to visit less often (e.g. less than once a month)[30]. In line with this finding, current smokers were also more likely to visit outdoor bar areas weekly, whereas non-smokers are more likely to visit less often (e.g. less than monthly or never in the past 12 months)[31]. It may be that non-smokers are avoiding these areas currently because of the unpleasantness associated with them being smoking areas, as is discussed in more detail below.

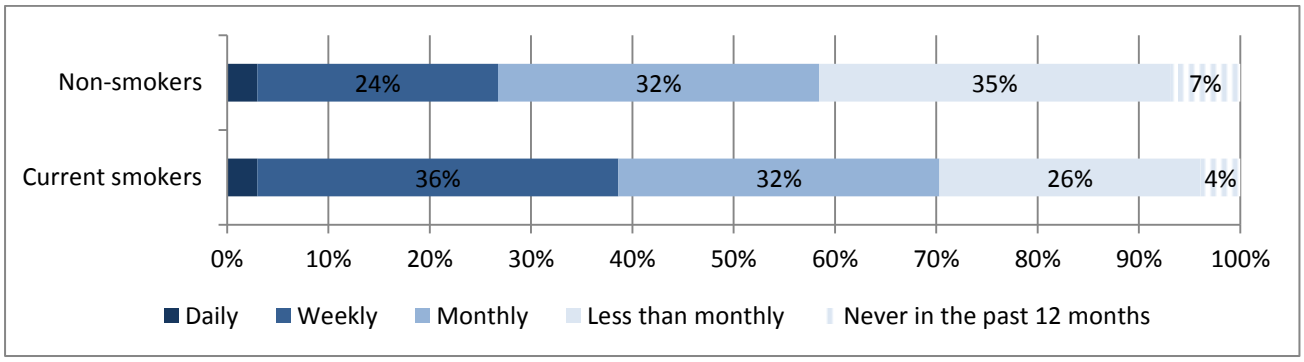

Figure 15. Frequency visit outdoor restaurant areas (split by current smoking status)

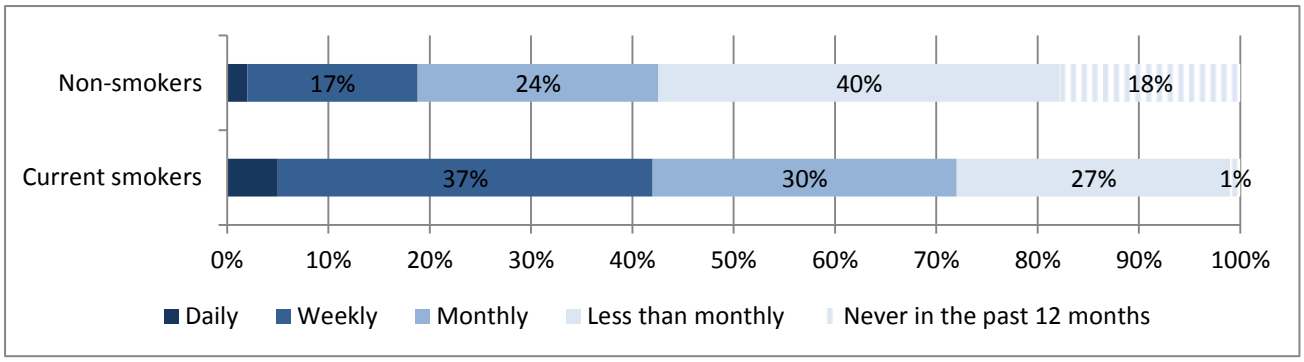

Figure 16. Frequency visit outdoor bar areas (split by current smoking status)

[30] $\chi^2(4, N = 1327) = 13.4, p < .01$
[31] $\chi^2(4, N = 1328) = 61.9, p < .001$

Table 5 presents a breakdown of the predicted impact on visiting behaviour for various locations if they were to become smoke-free (assuming they currently were not smoke-free, sorted by highest net gain to lowest) (refer to Figure 17 for a full break-down of responses). As can be seen, only a small proportion of the overall sample indicated that they would be less likely to visit all of the locations listed if they became smoke-free, ranging from 3% for bus stops and sports fields to 9% for outdoor bar areas. The net gain expected based on the proportion of those indicating they would be more likely to visit minus those indicating they would be less likely to visit ranges from 30% for Te Kopahou (Red Rocks Reserve) to 48% for outdoor bar areas and 54% for outdoor restaurant dining areas.

Table 4. Likelihood visit various locations if they were smoke-free (total sample)

	% 'much less' and 'less' likely to visit	% unaffected	% 'more' and 'much more' likely to visit	Total % unaffected or more likely to visit	Overall predicted increased likelihood (net gain)
Outdoor restaurant dining areas	8%	30%	62%	92%	**54%**
Outdoor bar areas	9%	35%	57%	91%	**48%**
Bus stops	3%	53%	44%	97%	**41%**
Parks	4%	54%	42%	96%	**38%**
Midland park*	4%	54%	42%	96%	**38%**
Botanic gardens	4%	55%	41%	96%	**37%**
Civic square	4%	55%	41%	96%	**37%**
Frank Kitts park	5%	54%	41%	95%	**36%**
The Golden Mile	4%	57%	39%	96%	**35%**
Beaches and coastal areas	5%	55%	40%	95%	**35%**
Cuba Street	5%	55%	40%	95%	**35%**
Otari-Wilton's reserve	4%	58%	38%	96%	**34%**
Other nature reserves	4%	58%	38%	96%	**34%**
The waterfront	5%	56%	39%	95%	**34%**
Waitangi park	5%	56%	39%	95%	**34%**
Oriental Bay	5%	57%	38%	95%	**33%**
Children's playgrounds*	4%	60%	36%	96%	**32%**
Sports fields*	3%	62%	35%	97%	**32%**
Te Kopahou (Red Rocks Reserve)	4%	62%	34%	96%	**30%**

* area already designated as smoke-free

Outdoor restaurant and bar areas are the most likely to be affected positively by a shift to being smoke-free, with the largest predicted increased likelihood of visiting. These areas are also the most polarising amongst the public, with both a higher proportion feeling they would visit more after a change in their smoking status, and in addition the highest proportions suggesting they would be less likely to visit, than any of the other areas listed. When comparing back to levels of support for these two areas becoming smoke-free, it would appear that outdoor restaurant dining areas have more support overall than outdoor bar areas for becoming smoke-free amongst the public.

Bus stops are next on the list, with a 41% anticipated net gain (and overall 97% suggested they would be unaffected or more likely to visit). It may be that non-smokers are currently avoiding any shelter provided at bus stops to avoid cigarette smoke, as bus users are obviously unable to avoid bus stops completely.

Comments made by respondents about the unpleasantness of being in areas with people smoking suggest that for these areas that can't necessarily be avoided, a change to being smoke-free could have impacts on the pleasantness of these areas:

> *"The question about whether you would frequent places more often if they were smoker is difficult to answer, as I usually have a purpose for visiting e.g. Lambton Quay and so will go even though I find it unpleasant walking near someone who is smoking."*

> *"On your question: If the following were smoke-free, would this make you...? It wouldn't make me go to those place but certainly would make it a lot more pleasant experience this for all of them."*

Overall, the data is consistent, with proportions of respondents feeling that they would be 'much less' or 'less' likely to visit each location being very small in each instance, and these respondents being far outweighed by those suggesting they would be more likely to visit if there was a change to being smoke-free. This suggests that numbers visiting each of the locations would be positively affected if they were to become smoke-free (for those areas that are not already).

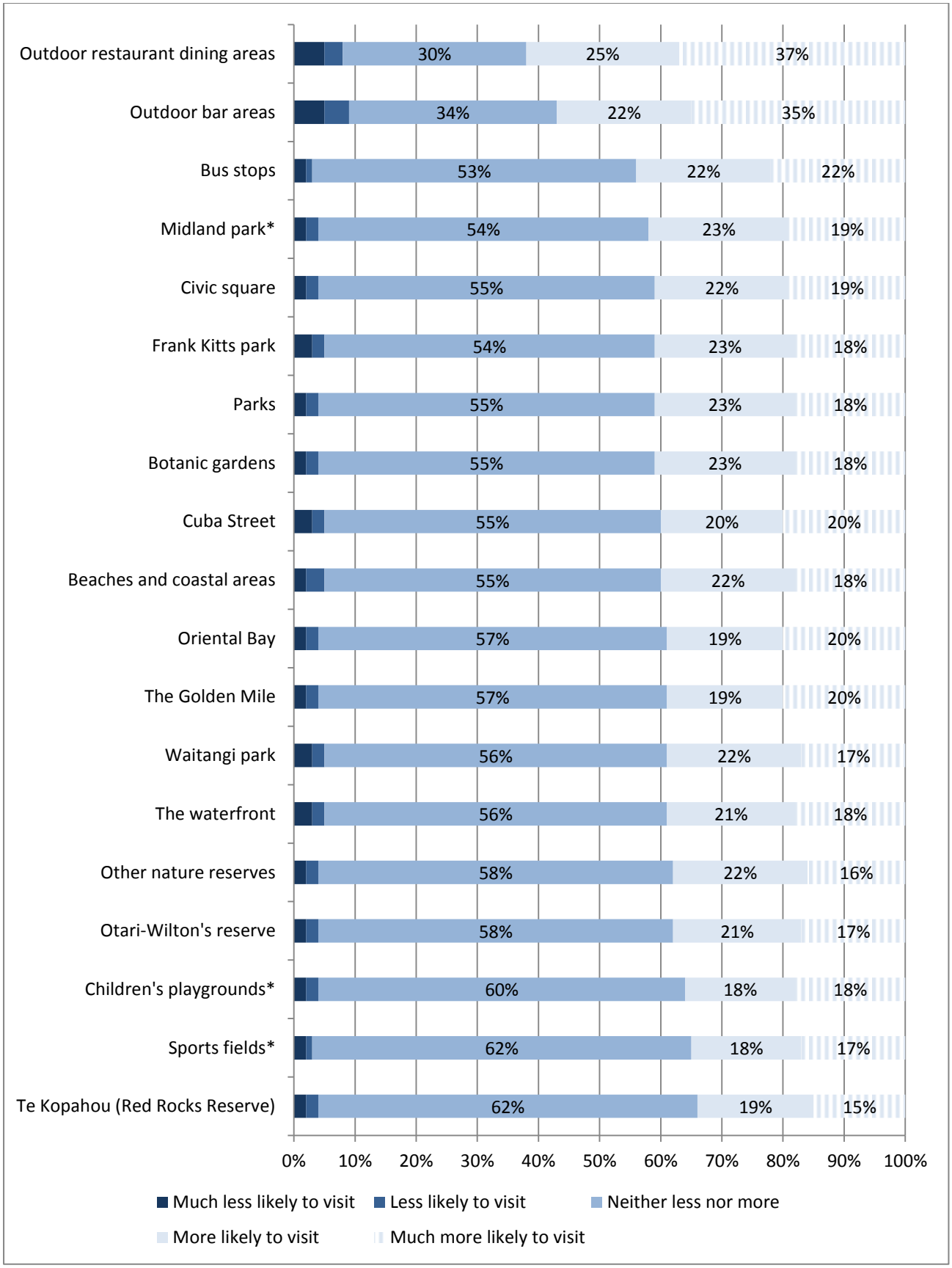

Figure 17. Likelihood of visiting various locations if they were smoke-free (total sample)

Table 6 presents a breakdown of this data by current smoking status (ordered by highest net gain to lowest for non-smokers). As can be seen, almost all non-smokers predicted they would be unaffected or more likely to visit all of the locations listed if they were to become smoke-free (ranging from 96%-99%). The majority of current smokers also predicted they would be unaffected or more likely to visit each location listed, however this was much more variable than for non-smokers (ranging from 54%-88%). For most locations this results in expected net decreases in likelihood of visiting for current smokers. Outdoor bar areas had the highest expected net decreased likelihood for smokers, at -31%. For outdoor restaurant dining areas the figure is -21%. At least two-thirds of current smokers predicted they would be unaffected or more likely to visit each of the other locations listed (ranging up to 88% for children's playgrounds).

Chi square analysis revealed that for each of the locations listed, smokers were significantly more likely to report that they would be 'less' or 'much less' likely to visit each location compared to non-smokers[32]. Non-smokers were significantly more likely to report that they would be 'more' or 'much more' likely to visit each. In a few cases, current smokers were also significantly more likely to report that the smoking status of various locations was not likely to affect the frequency with which they visited them. These locations were:

- Children's playgrounds,
- The Botanic gardens,
- Other nature reserves,
- Parks,
- Bus stops,
- Civic square,
- Midland park, and
- Outdoor restaurant areas.

Therefore, smokers are more likely to predict they would visit all the locations listed less often if they were smoke-free, however less than half of the sample of smokers predicted visiting less for all locations (outdoor restaurant and bar areas had the highest proportions of current smokers suggesting they would frequent such facilities less often, at 46% and 42% respectively). Current smokers however were also significantly more likely to feel their behaviour would be unaffected by a change in the smoking status in a number of locations (listed above).

[32] See Appendix B for these chi square statistics.

Table 5. Reported likelihood visit each location if smoke-free (split by current smoking status)

	Non-smokers (N=1170)					Current smokers (N=159)				
	% 'much less' and 'less' likely	% unaffected	% 'more' and 'much more' likely	Total % unaffected or more likely to visit	Overall predicted increased likelihood (net gain)	% 'much less' and 'less' likely	% unaffected	% 'more' and 'much more' likely	Total % unaffected or more likely to visit	Overall predicted likelihood (net gain/loss)
Outdoor restaurant dining areas	4%	29%	68%	96%	**64%**	42%	38%	21%	58%	**-21%**
Outdoor bar areas	4%	34%	62%	96%	**58%**	46%	39%	15%	54%	**-31%**
Bus stops	2%	52%	46%	98%	**44%**	16%	63%	21%	84%	**5%**
Midland park*	2%	52%	46%	98%	**44%**	21%	66%	13%	79%	**-8%**
Parks	1%	54%	45%	99%	**44%**	22%	65%	14%	78%	**-8%**
Frank Kitts park	1%	54%	45%	99%	**44%**	28%	59%	14%	72%	**-14%**
Civic square	2%	53%	45%	98%	**43%**	22%	67%	12%	78%	**-10%**
Botanic gardens	2%	54%	44%	98%	**42%**	22%	62%	16%	78%	**-6%**
The Golden Mile	1%	56%	43%	99%	**42%**	29%	59%	12%	71%	**-17%**
Beaches and coast	2%	54%	44%	98%	**42%**	30%	57%	13%	70%	**-17%**
The waterfront	1%	56%	43%	99%	**42%**	33%	54%	13%	67%	**-20%**
Cuba Street	1%	56%	43%	99%	**42%**	34%	53%	14%	66%	**-20%**
Waitangi park	2%	56%	43%	98%	**41%**	25%	63%	13%	75%	**-12%**
Oriental Bay	1%	58%	42%	99%	**41%**	30%	57%	14%	70%	**-16%**
Other nature reserves	2%	57%	42%	98%	**40%**	18%	68%	14%	82%	**-4%**
Otari-Wilton's reserve	2%	57%	41%	98%	**39%**	23%	65%	12%	77%	**-11%**
Children's playgrounds*	3%	59%	39%	97%	**36%**	12%	73%	15%	88%	**3%**
Te Kopahou (Red Rocks)	1%	62%	37%	99%	**36%**	24%	67%	9%	76%	**-15%**
Sports fields*	2%	61%	37%	98%	**35%**	17%	68%	15%	83%	**-2%**

* area already designated as smoke-free

The relationship between intended or predicted behaviour in different possible scenarios and actual later behaviour should be considered in relation to these findings. It is important to note that predictions of later behaviour tend to only account for a small proportion of eventual behaviour, with a wealth of research demonstrating this relationship (see for example: Fishbein & Ajzen, 1975[33]).

Post-policy data elsewhere (and in New Zealand for previous changes to smoke-free policy) indicates that smokers tend to enjoy smoke-free areas more than they predicted and either increase or do not change their patronage (see footnote for references[34]). One example of attitude change in the New Zealand context is demonstrated in Milne & Guenole (2006). The percentage of bar managers agreeing with the statement "I am confident that patrons will respond positively when I ask them to smoke outside" increased from 37% before the 2004 law change making it illegal to smoke inside hospitality business to 82% after the change. Data on the retail trade for cafes, restaurants, clubs, pubs, taverns and bars also shows that trade has steadily increased since the 2004 law change, indicating that the change did not have negative effects on these premises (see Paynter et al, 2014 for further detail)

Enforcement

As can be seen in Figure 18, opinions amongst the sample were very mixed with regard to whether or not smoke-free signage is enough to prompt people not to smoke in smoke-free areas. Previous research in Auckland has shown that the visibility of smoke-free signage at new smoke-free outdoor locations can be an issue, with 55% of respondents reporting having noticed such signage at public outdoor areas associated with Auckland Council services and only 17% for parks and reserves (see Wyllie, 2015). This suggests that signage alone may not be enough to prompt people not to smoke in smoke-free areas as they may not notice the signage. It may also help to explain the low level of awareness of smoke-free areas found in the current survey, and perceptions that these are not being respected currently. The location, size and layout of any signage used in the future in Wellington should therefore be carefully considered.

There was high support for smoke-free areas being enforced with a bylaw and fine within the sample, with three-quarters expressing support for this option and only 14% disagreeing (43% of smokers were in support, see below for further details). In Auckland it was found that about 3 in every 10 people felt comfortable to intervene if they saw a stranger smoking in a smoke-free outdoor area (Wyllie, 2014). This may be one reason why enforcement through other means rather than social pressure alone may appeal to the public, as around 70% may feel uncomfortable to approach someone themselves.

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[33] Fishbein, M. & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

[34] See:

Edwards, E., Thomson, G., Wilson, N., Waa, A., Bullen, C., O'Dea, D., Gifford, H., Glover, M., Laugesen, M. & Woodward, A. (2008). After the smoke has cleared: evaluation of the impact of a new national smoke-free law in New Zealand. *Tabacco Control, 17*(2).

Paynter, J., Gentles, D., Wilson, J., Marsh, S., Bullen, C. & Glover, M. (2014). *Ten years after taking the smoke outside: The impacts of the Smoke-free Environments Amendment Act 2003*. Auckland, New Zealand: Tabacco Control Research Turanga.

Milne, K. & Guenole, N. (2006). *Changing support for smokefree bars among a cohort of New Zealand bar managers.* Report prepared for the Ministry of Health.

Almost two-thirds of the sample agreed that smoke-free signage in Wellington should have Quitline information included on it and only 11% disagreed (21% of smokers agreed, see below).

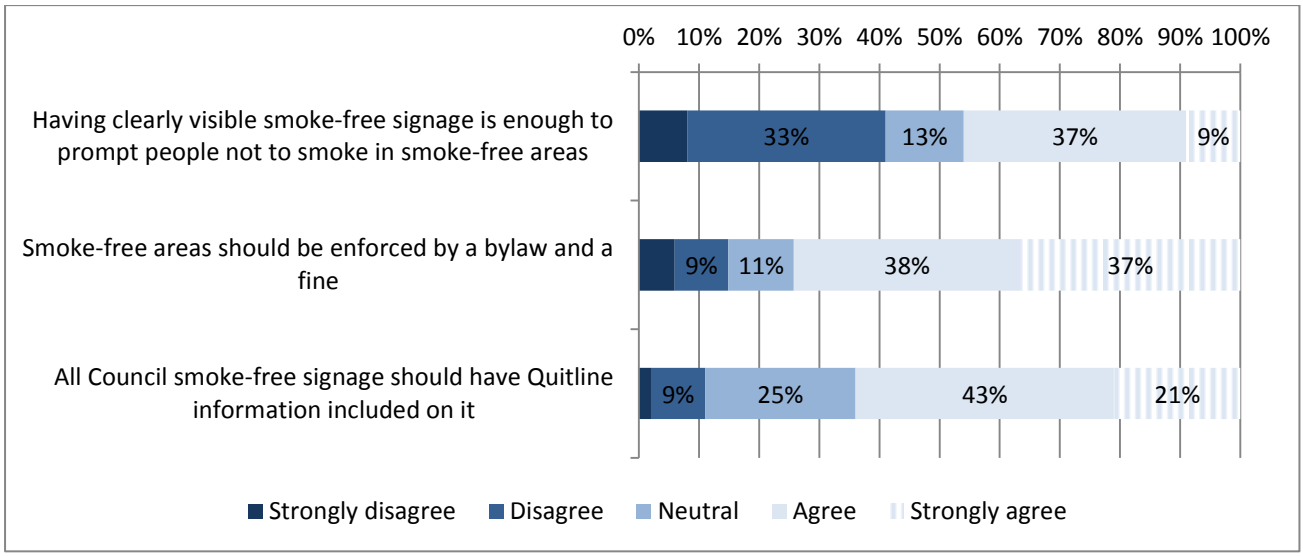

Figure 18. Enforcement

Independent samples *t* tests revealed that there were statistically significant differences on mean scores on these items between current smokers and non-smokers[35] (see Table 7). Current smokers had higher agreement that signage was enough in way of enforcement (where as non-smokers were neutral on this measure). Current smokers scored lower (close to neutral) on the item gauging support for enforcement with a bylaw/fine compared to non-smokers, whereas non-smokers agreed on average. Finally, current smokers were less likely to agree that smoke-free signage should have Quitline information on it; however both groups were above neutral on this item (e.g. were closer to agreement on average).

Table 6. Comparison of mean scores on enforcement items for current smoking status

		N	Mean score	SD	Sig.
Having clearly visible smoke-free signage is enough to prompt people not to smoke in smoke-free areas	Non-smokers	1120	3.0	1.2	***
	Current smokers	157	3.5	1.2	
Smoke-free areas should be enforced by a bylaw and a fine	Non-smokers	1123	4.1	1.0	***
	Current smokers	155	2.9	1.4	
All Council smoke-free signage should have Quitline information included on it	Non-smokers	1134	3.8	0.9	***
	Current smokers	156	3.4	1.1	

***p<.001

Figures 19-21 provide a categorical breakdown of this data by current smoking status.

Less than half of non-smokers (45%) agreed that signage is enough to prompt people not to smoke in smoke-free areas, compared to 62% of current smokers (42% of non-smokers disagreed and 26% of current smokers disagreed).

[35] See Appendix B for these *t* test statistics.

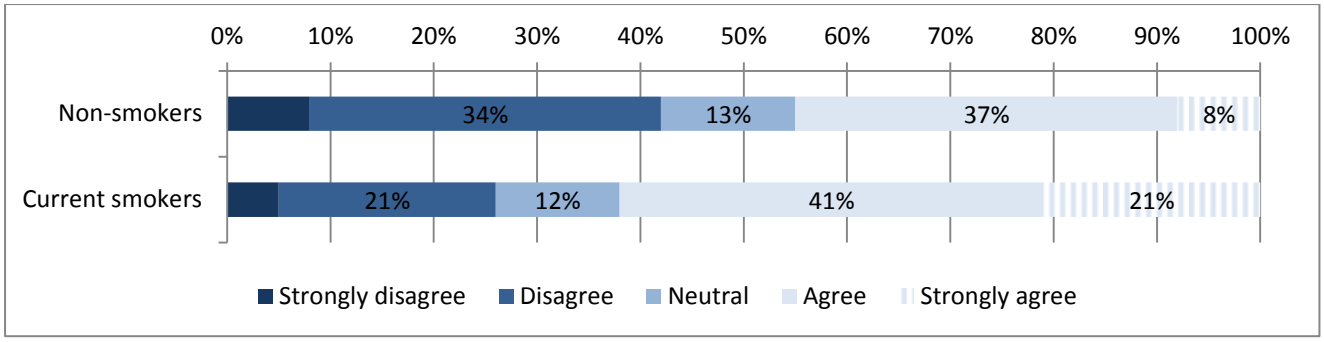

Figure 19. "Having clearly visible smoke-free signage is enough to prompt people not to smoke in smoke-free areas" by current smoking status

The majority of non-smokers (80%) supported smoke-free outdoor areas in Wellington being enforced by a bylaw/fine, with only 10% not in support. This compares to 39% of current smokers in support (and 44% opposing the notion).

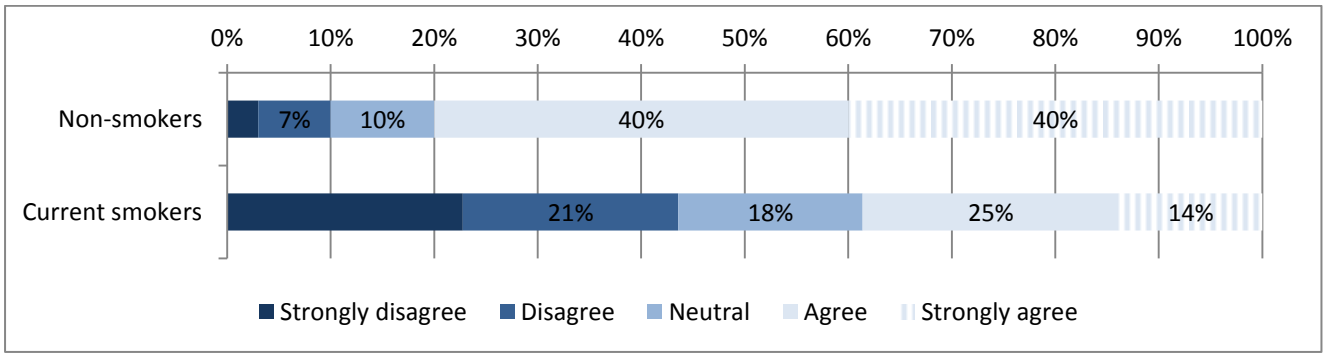

Figure 20. "Smoke-free areas should be enforced by a bylaw and a fine" by current smoking status

Around two-thirds of non-smokers (67%) supported smoke-free signage having Quitline information included on it, compared to 45% on current smokers.

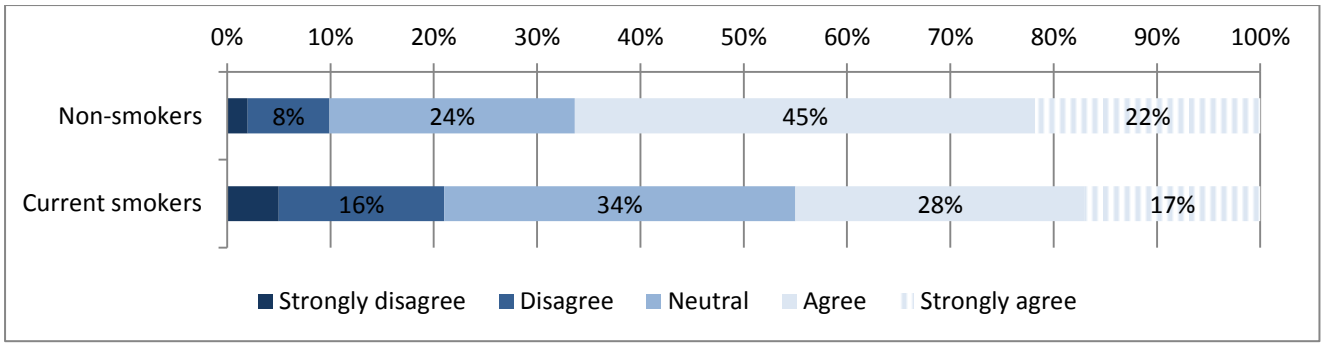

Figure 21. "All Council smoke-free signage should have Quitline information included on it" by current smoking status

Those with dependent children

A number of analyses were conducted to assess whether those who regularly cared for children under the age of 16 years differed from those who did not with regard to their attitudes towards smoking in public. Overall, these findings provided a relatively mixed picture.

Those who regularly cared for children were significantly more likely to be in the 'high' score group on the attitudes towards smoking scale, where as those who did not were significantly more likely to be in the 'low' score group[36]. However, those who regularly cared for children were also more likely to be non-smokers, meaning it is difficult to determine the magnitude of the impact of having children on attitudes towards smoking versus the impact of being a non-smoker and all the factors that relate to this choice.

Those who cared for children were no more likely to believe that children's playgrounds were already smoke-free than those without children[37], and in addition were no more likely to have a preference for them to be[38]. They were significantly more likely to suggest they would be more likely to visit playgrounds if they were smoke-free, however[39]. Whether or not people regularly cared for children had no impact on their overall smoke-free preferences of the locations listed (e.g. wanting them all to be smoke-free versus none versus a mix). There was also no mean score difference on the item "Smoking should be banned in all places where children are likely to go" based on whether or not people regularly cared for children (those who cared for children *M*=4.4 (*SD*=1.0), those who did not *M*=4.3 (*SD*=1.1))[40].

General comments

Comments relating to a range of different topics were received at the end of the survey (see Table 22 for a full thematic breakdown). Of the 423 comments received, 116 suggested support for Wellington and/or New Zealand becoming increasingly smoke-free. Some example comments include:

> *"Thank you for the opportunity to comment. Wellington is a fantastic place to live and we could be leaders in providing an environment that supports people to be non-smokers and supports our children to grow up smoke-free."*

> *"Introducing smoke-free workplaces was strongly contested. Being involved in the discussion over this was one of the things that helped me stop smoking. I think the Council should bite the bullet and do the right thing rather than the easy thing. It might save the lives of some of the people who cry Nanny state. Everyone needs a Nana who cares."*

> *"When people chose to smoke in public places, and we are forced to walk through it - they shouldn't be allowed. E.g. footpaths etc - the only way to get away from the smoke is to put ourselves in further danger by walking on the road."*

> *"If WCC is serious about supporting the Govt's goal of Smoke Free 2025 then significant action needs to be taken. Sending a message that it is NOT OK to smoke anywhere in public would be a massive step forward. People can exercise their personal choice in their home, just like they do for other things that are not acceptable in public e.g. nudity."*

[36] $\chi^2(2, N = 1258) = 7.5, p < .05$
[37] $\chi^2(1, N = 1322) = 0.3, p > .05$
[38] $\chi^2(2, N = 1324) = 2.8, p > .05$
[39] $\chi^2(2, N = 1257) = 24.4, p < .001$
[40] $t(1259.7) = -1.8, p > .05$

The next most common theme related to support for balance and tolerance (N=97). Generally these respondents supported having a mix of smoke-free areas and areas with no restrictions around the city. Many suggested they felt that being heavy-handed or imposing fines on people was not desirable, and expressed a desire to support people through dealing with their addiction over such an approach[41]. Education and support was valued amongst these respondents. Some of these respondents also suggested that they felt it would be too difficult to enforce wide-ranging smoke-free polices.

> *"Banning smoking in specific areas is not going to address the bigger problem of addiction and the isolation that these restrictions place upon people. These enforcements are shaming people, who probably need help. Although I personally do not smoke, I feel like these extremist ways to reduce public acceptance of smoking are not going to work."*

> *"Smoking is an addiction and therefore smokers are suffering from a form of disability and this needs to be considered. Many smokers want to quit and find it difficult. Further certain sections of the community are over represented with smokers and we do not want to alienate them."*

> *"There is enough information about the dangers of smoking to convince people that it is not a great idea. But it IS addictive, and difficult to quit. I don't think by-laws and fines would really help motivate anyone. Quitting is stressful enough."*

Many respondents expressed a dislike for smoking in their comments (N=76), for example:

> *"I get that smoking is up to individual choice, but I strongly resent somebody imposing something that I don't think has any redeeming features, on me. I don't like it when I sit outside a bar, for example, in the summer and somebody starts smoking beside me. I want to enjoy the good weather without that awful smell."*

> *"Smoking affects us all, and the prevalence of unrestricted smoking in Wellington City makes it an unpleasant place to visit."*

> *"Outdoor dining not now an option given the concentration of smokers in these spaces."*

> *"Smoke coming inside from smokers outside and smoke from smokers on footpaths when I'm walking along a footpath are annoying and disruptive to my enjoyment of place and space."*

Cigarette butt litter was one of the main issues raised by respondents, with 51 comments referring to this. Many of these respondents expressed a concern for the environment from this littering, and

[41] It should be noted here that the previous work undertaken by Wyllie (2014) revealed positive effects on quitting smoking from the changes to outdoor smoke-free policy that Auckland Council have recently made. Of those in their sample who had quit smoking in the previous two years, 23% agreed that outdoor smoke-free places/events had helped them to stop smoking, and 22% agreed it had helped them to stay quit. Of those who had attempted to quit or cut down, 28% agreed it had helped their attempts to quit or cut down, and 15% agreed that the policy was one of the reasons they decided to do so.

confusion around why this is seemingly allowed and is not fined. There was general support for imposing fines for not disposing of cigarette butts appropriately amongst these comments. For example:

> *"I am most concerned that smokers cigarette butts disposed of in the street may end up in the waterways and on beaches."*

> *"It's not just breathing in others smoke when you are out and about. It's also the litter of cigarette butts that end up in our water ways. Smokers think it's fine to just drop their butts on the ground and in the gutter."*

> *"I would like to see much better enforcement of littering laws concerning cigarette butts. They're everywhere in the city and in the harbour. It's disgusting. Smokers do not consider their cigarette butts as rubbish. They should be taught to and be heavily fined."*

Fifty respondents raised concerns about the negative effects on health from smoking, including both first-hand and second-hand smoke:

> *"Some people say smoking is a personal choice and should be left as a personal choice. However it is a personal choice that impinges on others' health, enjoyment and life. So controlling where people smoke more is something I do not disagree with."*

> *"Thank you for considering limiting areas that people can smoke. I have asthma and this affects me regularly. It is also very distressing going outside for a walk and not getting any fresh air, or having to stand in the rain at bus stops to get away from the smoke."*

> *"I am asthmatic and my children are asthmatic. Reducing our exposure to cigarette smoke is important to me. I strongly support creating a smoke free society in Wellington for the benefit of everyone's health, including that of my immediate family."*

> *"Smoking is pollution. There is the link to secondary lung cancer, discomfort to non-smokers and it simply is unnecessary. It's not an unreasonable demand to expect a smoke-free environment in public areas (where we share the same breathing space)."*

A number of respondents made comments that suggested they supported a total smoking ban (N=45):

> *"I strongly support smoke-free Aotearoa 2025 vision and hope that Wellington City supports the Governments goal of Smoke-free Aotearoa by 2025."*

> *"Banning smoking is the best thing that WCC could do to improve the health and well-being of its citizens and visitors."*

> *"I look forward to a smoke free Wellington."*

The idea of introducing designated smoking areas, including enclosed smoking areas to protect non-smokers from cigarette smoke, was raised by 36 respondents. Some example comments include:

> *"I would love to see smoke-free signage in public areas; but need somewhere for smokers to go to smoke. If we know where smokers can go then non-smokers also know*

where not to go. Nothing worse than walking down Lambton Quay or any street and breathing a mouthful of someone else's cast off smoke."

"Smokers are not second-class citizens, but need more places to smoke legitimately so they don't offend non-smokers. e.g. special allocated outdoor areas throughout the city like little groups of seats or gardens. Also the reality is 24% of people smoke, so employers should provide an area so that they don't smoke in the door ways which is terrible for them in the cold and visitors and non-smoking employees."

"Designated smoking areas preferred - including glass boxes that protect others from the smoke."

Many respondents also raised the issue of role-modelling for children, as well as protecting children from second-hand smoke (N=35):

"As a grandparent I am particularly keen for my grandchildren to grow up in a smoke free environment. One of my children is asthmatic and as a child was strongly affected by smoke from cigarettes. Those of us who do not smoke should not have to breathe other people's smoke anywhere public."

"There are far more non-smokers than smokers now in NZ, they should not have to breathe in the smoke from other's cigarettes. Children copy what they see so if you restrict the visibility of smokers it will help to reduce the number of young people starting to smoke. A reduction in visibility also helps those who are trying to quit by taking away some of their cues to smoke."

"Protect our children and ourselves from second hand smoke."

There were a number of comments that suggested a lack of support for increased smoke-free policies, including some comments which suggested respondents were not bothered either way (N=33):

"While I don't approve of smoking I also don't want people who do smoke to be shunned from being in public spaces - they have as much right to be in this city as non-smokers and as long as they are respectful of not smoking too close to others (especially children) then I don't think it's a big issue. There is often a good breeze in Wellington to whisk the smoke away."

"Wellington's outdoor spaces aren't really very crowded, nor are they full of smokers. There isn't any reason to make smokers feel unwelcome. There aren't that many of them. And you may have noticed, it's often quite breezy, so smoke doesn't hang around..."

"So few people smoke these days I don't think it's much of an issue."

Twenty-two respondents made comments that revealed that they felt there were bigger issues to focus on over smoking in the city, including alcohol, homelessness, youth issues and crime for example:

"Cigarette smoke is unpleasant and smoking is an unhealthy habit; however, I would prefer to see more awareness of alcohol overuse and abuse. Alcohol is a bigger problem than cigarettes."

"I think alcohol is a far bigger public health and public nuisance problem and would like to see the same zeal put into that rather than this (and I drink)."

Fewer comments were received on the following topics:

- An assertion that current smoke-free signage is not working or is not respected, meaning that further education and/or enforcement is required (N=10),
- Comments about tourism, with some suggesting that a move towards being increasingly smoke-free would hurt Wellington's tourism, whilst others asserted the opposite (N=6),
- A desire for people not to smoke outside their workplace, or an expressed dislike of this behaviour (N=4),
- Comments that were pro (N=2) and against (N=2) e-cigarettes, and
- A suggestion to provide Quitline information on ashtrays and rubbish bins around the city (N=1).

Figure 22 provides a breakdown of these comments.

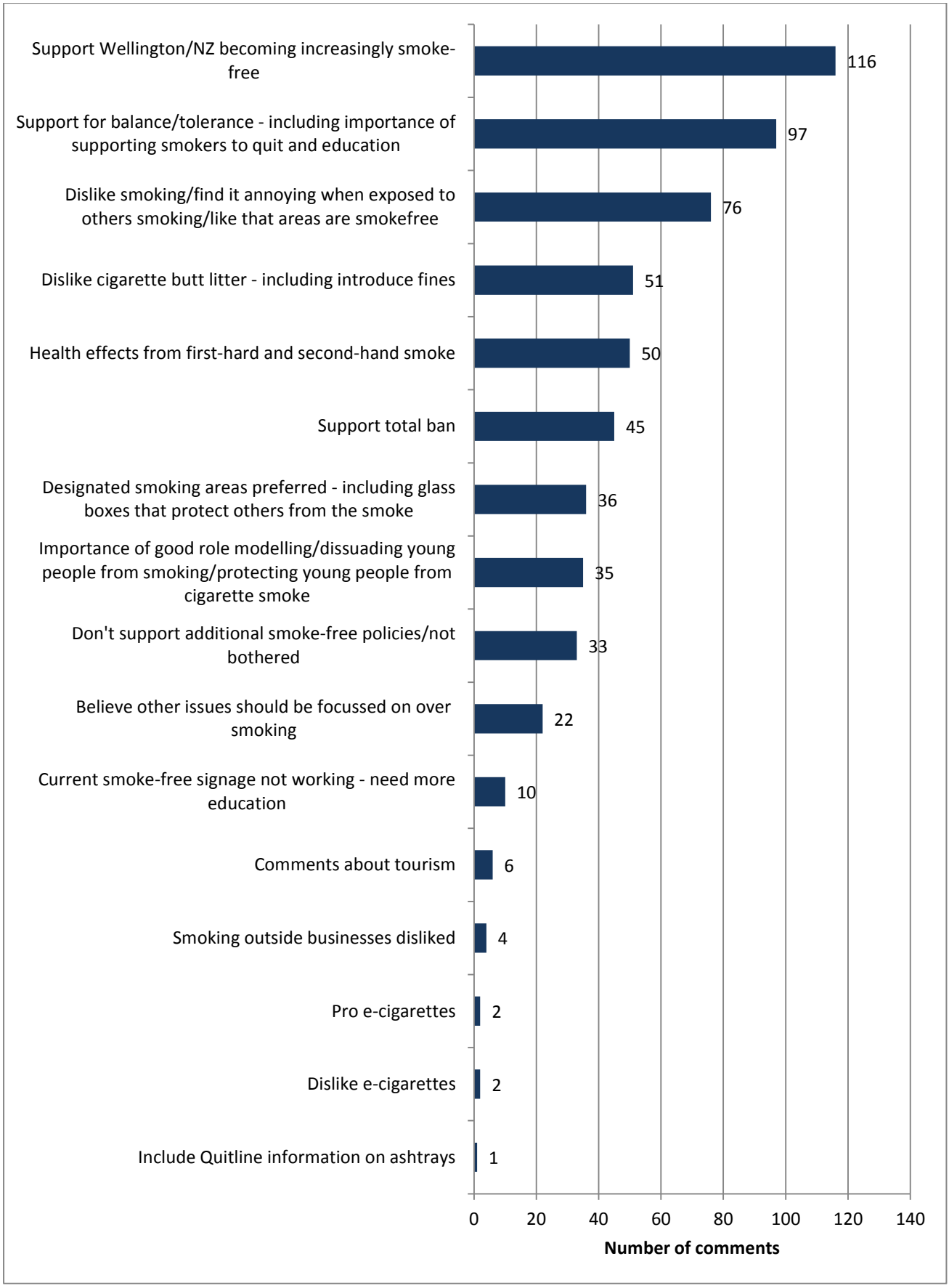

Figure 22. General comments breakdown (N=423)

Comparison to key 2012 findings

In 2012 a pre implementation evaluation was carried out on the WCC smoke-free parks initiative, in a partnership between WCC, the Cancer Society and Regional Public Health. Regional Public Health and the Cancer Society conducted research designed to evaluate the effectiveness of the new smoke-free policy covering the city's playgrounds, sports grounds and skate parks. This research involved face-to-face surveys with members of the public at various parks and sports fields around Wellington. In total, 243 people were interviewed.

A number of items included in this 2012 survey were repeated in the current survey. Table 8 presents a comparison of the number of respondents wanting a range of outdoor areas in Wellington to be smoke-free. As can be seen, the percentage has increased for each location between the two time periods. This is particularly encouraging for sports fields and children's playgrounds, which have now been smoke-free for a few years, indicating that the policy may have had a positive influence on public opinions. It also indicates that there is increased support now compared to 3 years ago for extending these smoke-free areas to parks and reserves.

Table 7. Preferences for smoke-free status comparison to 2012 findings

	2012 survey % wanting area to be smoke-free[42]	2015 survey % wanting area to be smoke-free
Sports fields	70%	80%
Children's playgrounds	85%	96%
Local parks and reserves[43]	49%	64%-72%

In the 2012 survey, 82% of respondents expressed support for cars carrying children being smoke-free. This compares to 83% in support in 2015. Therefore there is strong support amongst the public for this legislative change, and this has been steady over the past few years.

[42] Note: in the 2012 survey, respondents were able to choose between smoking being allowed "anywhere", in "set areas" only or "not at all". In the 2015 survey, respondents could choose between being smoke-free or having no retrictions.

[43] Note: In the 2015 survey local parks and reserves were covered separately, whereas they were combined in the 2012 survey.

Summary and conclusions

Overall, the survey findings show consistent support for increased smoke-free initiatives in Wellington City amongst the public. While current smokers generally were less supportive of smoke-free initiatives, this group were also very mixed in their views. The majority of smokers supported a change to being smoke-free for a range of areas and the majority predicted that their visiting behaviour would either be unaffected or would increase for all locations listed in the survey if they were made smoke-free.

The following conclusions can be drawn from the survey findings:

1. **There is at present a lack of awareness of current smoke-free areas in Wellington City**

Smokers had slightly higher awareness overall compared to non-smokers, however overall rates of awareness amongst both groups were less than optimal. It is therefore recommended that further promotion of current smoke-free outdoor areas is undertaken, including a review of the signage used. A page on the Wellington City Council website clarifying which areas are currently smoke-free is also recommended.

2. **Current designated smoke-free areas may not be free of smoking in reality (more data is required)**

While this was not an area specifically explored in the survey, a number of comments made by respondents suggested that smoke-free areas in the city may not be respected at present. The lack of awareness of what areas in Wellington are smoke-free currently may be contributing to this issue. Observations at a number of smoke-free areas around Wellington will be collected in a study separate to the current study over the summer of 2015/2016 by the University of Otago in order to gather some quantitative data to explore this. Until this data is collected it is not possible to draw any strong conclusions regarding this.

3. **There is strong support for expanding smoke-free areas in Wellington City**

And this appears to be growing when comparing back to similar research from 2012. Areas with particularly high support include those outside public buildings, bus stops and nature reserves. There was total sample *and* smoker majority support for these areas being smoke-free.

4. **A change to being smoke-free is likely to have positive impacts on visitor numbers**

Survey responses predicted net increases in the likelihood of visiting locations ranging between 30% (for Te Kopahou, Red Rocks Reserve) and 54% (for outdoor restaurant dining areas) of the sample with a change to being smoke-free . Net increased likelihood of visiting for non-smokers (who made up 88% of the sample) were larger, ranging from 35% for sports fields to 64% for outdoor restaurant dining areas. Net increased likelihood of visiting for smokers was expected for a few locations; however for the majority of locations a net decreased likelihood of visiting was predicted. Outdoor restaurant and bar areas were the most polarising, with the largest proportions of people both saying they would be 'more' or 'much more' likely to visit *and* 'much less' or 'less' likely to visit of all of the locations listed in the survey, resulting in the highest expected net increased likelihood of visiting of all the locations for these areas. Previous research evidence also shows people tend to be

more positive towards smoke-free initiatives after they are implemented compared to their predictions prior to a change.

For areas that people have no choice over visiting, there was also a suggestion in the survey findings that non-smokers would find these areas more pleasant if they were smoke-free.

5. **There is support for enforcement of smoke-free initiatives**

Opinions amongst the sample were very mixed with regard to whether or not smoke-free signage is enough to prompt people not to smoke in smoke-free areas. There was high support for smoke-free areas being enforced with a bylaw and fine within the sample, with three-quarters expressing support for this option and only 14% disagreeing. 43% of smokers supported this option.

It is recommended that these survey findings are taken into account in conjunction with the findings of the observational work to be completed over the 2015/2016 summer by the University of Otago when reviewing the Council's smoke-free initiatives.

Appendix A: Survey items

Attitudes towards smoking in Wellington City survey

Thank you for agreeing to complete this short survey. It should take you approximately 5-10 minutes to complete and we really appreciate your feedback. This survey will help inform the Council's ongoing smoke-free policy changes.

Complete this survey to go in the draw to win ONE of FIVE $50 New World grocery vouchers!

Your answers to this survey are completely confidential. Your views will be grouped with others so that individual results cannot be identified. Prize draw winners will be contacted following completion of data collection (September 21, 2015). If you have any questions about the survey, please contact research@wcc.govt.nz.

Page 1

1A Which of the following best describes you? *

- ○ I have never smoked
- ○ I used to smoke but don't any more
- ○ I smoke occasionally
- ○ I smoke regularly

Page 2

2A Which of the following in Wellington City do you believe *are currently smoke-free?* *

Please select all that apply.

- ☐ The waterfront
- ☐ Children's playgrounds
- ☐ Botanic gardens
- ☐ Otari-Wilton's reserve
- ☐ Other nature reserves
- ☐ Sports fields
- ☐ Parks
- ☐ Bus stops
- ☐ Frank Kitts park
- ☐ Beaches and coastal areas
- ☐ Civic square
- ☐ Outdoor restaurant dining areas
- ☐ Outdoor bar areas
- ☐ Waitangi park
- ☐ Midland park
- ☐ The Golden Mile (Lambton Quay, Willis St, Manners St and Courtenay Place)
- ☐ Te Kopahou (Red Rocks reserve)
- ☐ Cuba Street
- ☐ Oriental Bay
- ☐ Entrances of buildings accessed by the public
- ○ None of the above

Page 3

3A

What do you think should be the status of the following areas of Wellington City (regardless of whether or not they are currently smoke-free)? *

Please select one option per line.

	No restrictions on smoking	Smoke-free	Not sure
The waterfront	○	○	○
Children's playgrounds	○	○	○
Botanic gardens	○	○	○
Otari-Wilton's reserve	○	○	○
Other nature reserves	○	○	○
Sports fields	○	○	○
Parks	○	○	○
Bus stops	○	○	○
Frank Kitts park	○	○	○
Beaches and coastal areas	○	○	○
Civic square	○	○	○
Waitangi park	○	○	○
Midland park	○	○	○
Outdoor restaurant dining areas	○	○	○
Outdoor bar areas	○	○	○
The Golden Mile (Lambton Quay, Willis St, Manners St and Courtenay Place)	○	○	○
Te Kopahou (Red Rocks reserve)	○	○	○
Cuba Street	○	○	○
Oriental Bay	○	○	○
Entrances of buildings accessed by the public	○	○	○

3B Are there any additional areas not listed above that you believe should be smoke-free? Please list these:

Page 4

4A How often do you visit the following? *

	Daily	Weekly	Monthly	Less than monthly	Never in the past 12 months
Outdoor restaurant dining areas	○	○	○	○	○
Outdoor bar areas	○	○	○	○	○

Page 5

5A If the following were smoke-free, would this make you...? *

Please answer this item assuming that all the areas listed are currently NOT smoke-free.

	Much less likely to visit	Less likely to visit	Neither less likely nor more likely to visit	More likely to visit	Much more likely to visit	Don't know
The waterfront	○	○	○	○	○	○
Children's playgrounds	○	○	○	○	○	○
Botanic gardens	○	○	○	○	○	○
Otari-Wilton's reserve	○	○	○	○	○	○
Other nature reserves	○	○	○	○	○	○
Sports fields	○	○	○	○	○	○
Parks	○	○	○	○	○	○
Bus stops	○	○	○	○	○	○
Frank Kitts park	○	○	○	○	○	○
Beaches and coastal areas	○	○	○	○	○	○
Civic square	○	○	○	○	○	○
Waitangi park	○	○	○	○	○	○
Midland park	○	○	○	○	○	○
Outdoor restaurant dining areas	○	○	○	○	○	○
Outdoor bar areas	○	○	○	○	○	○
The Golden Mile (Lambton Quay, Willis St, Manners St and Courtenay Place)	○	○	○	○	○	○
Te Kopahou (Red Rocks reserve)	○	○	○	○	○	○
Cuba Street	○	○	○	○	○	○
Oriental Bay	○	○	○	○	○	○

Page 6

6A Please rate your level of agreement with the following statements: *

	Strongly Disagree	Disagree	Neither disagree nor agree	Agree	Strongly Agree	Not sure
I support Wellington City becoming increasingly smoke-free	○	○	○	○	○	○
It frustrates me when people smoke near me when I'm dining outside at a restaurant	○	○	○	○	○	○
Smoking should be banned in all outdoor public places where children are likely to go	○	○	○	○	○	○
It frustrates me when I'm sitting outside and someone starts smoking near me	○	○	○	○	○	○
Smoking is a personal choice and shouldn't have restrictions placed on it	○	○	○	○	○	○

Page 7

7A Please rate your level of agreement with the following statements: *

	Strongly Disagree	Disagree	Neither disagree nor agree	Agree	Strongly Agree	Not sure
Having clearly visible smoke-free signage is enough to prompt people not to smoke in smoke-free areas	○	○	○	○	○	○
All Council smoke-free signage should have Quitline information included on it	○	○	○	○	○	○
Smoke-free areas should be enforced by a bylaw and a fine	○	○	○	○	○	○

Page 8

Finally, just a few questions about you to ensure that we've spoken to a range of different people.

8A Are you? *

- ○ Male
- ○ Female
- ○ Gender diverse
- ○ Prefer not to say

8B Which of the following age groups do you fall into? *

- ○ Under 18
- ○ 18 to 29
- ○ 30 to 39
- ○ 40 to 49
- ○ 50 to 64
- ○ 65 years or older
- ○ Prefer not to say

8C Which ethnic group(s) do you belong to?
Please select all that apply.

- ☐ NZ European/Pakeha
- ☐ Māori
- ☐ Pacific Islander
- ☐ Asian
- ☐ European (other)
- ☐ Other (please specify)

Page 9

9A Do you regularly care for children under 16 years of age?

- ○ Yes
- ○ No

9B In which of the following areas do you currently reside? *

- Wellington City
- Porirua
- Kapiti
- Lower Hutt
- Upper Hutt
- Wairarapa
- Other (please specify)

If your answer to question 9B.WellingtonRegion is not "Wellington City" then answer this question

9C Approximately how frequently do you visit Wellington City? *

- Daily
- Several times a week
- Weekly
- Several times a month
- Monthly
- Less than monthly
- Never in the past 12 months

Page 10

10A Are there any additional comments or suggestions that you would like to add?

Page 11

11A

If you would like to go in the draw to win ONE of FIVE $50 New World grocery vouchers, please enter the email address you would like to be contacted on, should your name be drawn as a winner, in the field below:

Thank you for taking the time to complete our survey, we really appreciate your feedback. If you have any questions about the survey, please feel free to contact research@wcc.govt.nz.

If you would like help to quit smoking, please contact Quitline on 0800 778 778 or visit their website: www.quit.org.nz.

Appendix B: Statistics

Comparison of attitudes towards smoking by smoking status

	***t* test results**
I support Wellington becoming increasingly smoke-free	$t(175.6) = 13.3$, $p < .001$
It frustrates me when people smoke near me when I'm dining outside at a restaurant	$t(175.1) = 14.0$, $p < .001$
Smoking should be banned in all outdoor places where children are likely to go	$t(182.7) = 9.1$, $p < .001$
It frustrates me when I'm sitting outside and someone starts smoking near me	$t(179.2) = 17.7$, $p < .001$
Smoking is a personal choice and shouldn't have restrictions placed on it	$t(180.3) = -12.3$, $p < .001$

Comparison of smoking preferences by smoking status

	Chi square results
The waterfront	$\chi^2(2, N = 1329) = 91.0$, $p < .001$
Children's playgrounds	$\chi^2(2, N = 1327) = 14.4$, $p < .001$
Botanic gardens	$\chi^2(2, N = 1329) = 57.0$, $p < .001$
Otari-Wilton's reserve	$\chi^2(2, N = 1329) = 30.7$, $p < .001$
Other nature reserves	$\chi^2(2, N = 1329) = 21.2$, $p < .001$
Sports fields	$\chi^2(2, N = 1329) = 7.9$, $p < .05$
Parks	$\chi^2(2, N = 1327) = 65.8$, $p < .001$
Bus stops	$\chi^2(2, N = 1328) = 44.7$, $p < .001$
Frank Kitts park	$\chi^2(2, N = 1328) = 84.8$, $p < .001$
Beaches and coastal areas	$\chi^2(2, N = 1329) = 120.4$, $p < .001$
Civic square	$\chi^2(2, N = 1329) = 75.2$, $p < .001$
Outdoor restaurant dining areas	$\chi^2(2, N = 1327) = 99.7$, $p < .001$
Outdoor bar areas	$\chi^2(2, N = 1329) = 189.2$, $p < .001$
Waitangi park	$\chi^2(2, N = 1329) = 80.3$, $p < .001$
Midland park	$\chi^2(2, N = 1329) = 117.8$, $p < .001$
The Golden Mile	$\chi^2(2, N = 1329) = 97.7$, $p < .001$
Te Kopahou (Red Rocks Reserve)	$\chi^2(2, N = 1329) = 70.3$, $p < .001$
Cuba Street	$\chi^2(2, N = 1329) = 108.0$, $p < .001$
Oriental Bay	$\chi^2(2, N = 1328) = 120.0$, $p < .001$
Entrances of buildings accessed by the public	$\chi^2(2, N = 1329) = 38.2$, $p < .001$

Comparison of likelihood visit different locations if smoke-free by smoking status

	Chi square results
The waterfront	$\chi^2(2, N = 1300) = 299.7, p < .001$
Children's playgrounds	$\chi^2(2, N = 1263) = 53.0, p < .001$
Botanic gardens	$\chi^2(2, N = 1301) = 149.6, p < .001$
Otari-Wilton's reserve	$\chi^2(2, N = 1285) = 173.6, p < .001$
Other nature reserves	$\chi^2(2, N = 1287) = 125.0, p < .001$
Sports fields	$\chi^2(2, N = 1280) = 119.4, p < .001$
Parks	$\chi^2(2, N = 1300) = 182.3, p < .001$
Bus stops	$\chi^2(2, N = 1290) = 105.7, p < .001$
Frank Kitts park	$\chi^2(2, N = 1295) = 248.5, p < .001$
Beaches and coastal areas	$\chi^2(2, N = 1296) = 220.4, p < .001$
Civic square	$\chi^2(2, N = 1300) = 168.2, p < .001$
Outdoor restaurant dining areas	$\chi^2(2, N = 1299) = 287.2, p < .001$
Outdoor bar areas	$\chi^2(2, N = 1290) = 308.8, p < .001$
Waitangi park	$\chi^2(2, N = 1290) = 186.2, p < .001$
Midland park	$\chi^2(2, N = 1294) = 156.9, p < .001$
The Golden Mile	$\chi^2(2, N = 1290) = 270.9, p < .001$
Te Kopahou (Red Rocks Reserve)	$\chi^2(2, N = 1263) = 199.5, p < .001$
Cuba Street	$\chi^2(2, N = 1295) = 319.6, p < .001$
Oriental Bay	$\chi^2(2, N = 1293) = 286.5, p < .001$

Comparison of enforcement items by smoking status

	t test results
Having clearly visible smoke-free signage is enough to prompt people not to smoke in smoke-free areas	$t(1275) = -5.0, p < .001$
All Council smoke-free signage should have Quitline information included on it	$t(187.1) = 5.2, p < .001$
Smoke-free areas should be enforced by a bylaw and a fine	$t(178.4) = 10.5, p < .001$