



THE ONTARIO TOBACCO RESEARCH UNIT  
UNITÉ DE RECHERCHE SUR LE TABAC DE L'ONTARIO

*Generating knowledge for public health*

# Evaluation of the Amended Toronto Smoke-Free Bylaws

## Summary of the Baseline and Follow-Up Assessments

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## Executive Summary

In 2013, the City of Toronto adopted amendments to existing bylaws that banned smoking in and around select park amenities (Municipal Code Chapter 608) and outside public building entrances (Municipal Code Chapter 709). The Ontario Tobacco Research Unit conducted an evaluation in collaboration with Toronto Public Health to assess the implementation of the bylaw amendments. Data was collected before enforcement began (2014) and one year later (2015). Below is a summary of the key findings by data source.

## Street Intercept Surveys

1. In 2015, a large proportion of smokers reported smoking at least sometimes when visiting a park (90%), a public beach that permitted swimming (85%), a sports field (56%) and near the entrance to a public building (50%). Similar levels of self-reported smoking behaviour were reported in 2014.
2. In 2015, two-thirds or more of all respondents at follow-up reported being exposed to secondhand smoke at least sometimes when entering a public building (83%), when visiting a park (76%), or a public beach where swimming is permitted (71%); while just over half reported being exposed to secondhand smoke at a sports field (53%). Self-reported secondhand smoke exposure did not significantly differ from the secondhand smoke exposure reported at baseline, except at sports fields where there was a decrease from 77% to 53% ( $p < 0.0001$ ).
3. Over 75% of respondents at follow-up reported that the amended bylaws have not affected how frequently they visit public venues affected by the bylaw (range: 75-79%). Compared to smokers, non-smokers were more likely to report that the implementation of the amended bylaws had significantly increased their use of the affected venues.
4. 39% of smokers reported that the amended bylaws had helped them cut down on the number of cigarettes that they smoked; 29% reported that the smoking bans made them more likely to quit smoking.

## Air Quality Measurements and Entranceway Observations

1. On average, fewer smokers were observed smoking within 9 metres and 9 – 12 metres from the sample of public building entranceways in 2015 compared to those observed in 2014.
2. Median levels of particulate matter (PM<sub>2.5</sub>), an indicator for secondhand smoke, increased when there were one or more lit cigarettes within 9 metres from entranceways in both 2014 and 2015. Secondhand smoke exposure continues to pose a risk to public health in public building entranceways one year after implementation of the amended bylaws.

## Key Informant Interviews

1. Information about the amended bylaws was posted on city websites and on social media (parks and entranceways); internal communications were sent to City of Toronto staff and internal departments (entranceways); education was targeted at high level corporations or business associations (entranceways); education was provided when responding to complaints or when non-compliance was observed (parks and entranceways), and during other *Smoke-Free Ontario Act* inspections (entranceways).
2. At the time of data collection, a complaint-based enforcement approach was applied to public building entranceways; park enforcement was conducted both proactively and in response to complaints.
3. Perceived compliance among enforcement staff was mixed. Some noted high levels of compliance (parks during daytime hours; businesses with great buy-in) or improvements to compliance after enforcement staff had addressed a complaint. Others perceived compliance to be the same as before the amendments were implemented (building entranceways, parks during evening hours)
4. Facilitators to implementing the amended bylaws included: education, changes to social norms, organizational support, enforcement staff experience, signage (availability of digital file, encourages compliance), and complaints that help identify non-compliance venues.

5. Challenges to implementing the amended bylaws included: limited frontage between building entranceway and sidewalk/street, definition of ‘public entranceway’, cigarette butt litter, signage (resistance to posting, placing stickers on existing signage in parks), confusion with other smoke-free policies, limited resources for enforcement, lack of consultation with enforcement staff, and non-compliance with specific properties.

Overall, the evaluation findings suggest that high levels of smoking and exposure to secondhand smoke continued to occur within public building entranceways and affected park venues one year after enforcement of the amended bylaws began.

Consideration should be given to increasing enforcement resources for Municipal Code Chapter 709 to help improve building proprietors’ understandings of the amended bylaw requirements. Further enforcement in park amenities affected by Municipal Code Chapter 608, especially in evening hours, may also increase compliance. However, since the amended bylaws are largely self-enforcing in nature, increasing public awareness would have the largest impact on improving compliance with the amended bylaws.

### Introduction

On December 17, 2013, Toronto City Council adopted amendments to existing bylaws to further strengthen protection from secondhand smoke (SHS) in outdoor spaces. The amendments prohibit smoking within 9 metres from entrances and exits of publicly accessible buildings (Municipal Code Chapter 709), and within the boundaries and 9 metres surrounding sports fields, beaches that permit swimming, specific park amenities and other outdoor areas (Municipal Code Chapter 608). Progressive enforcement of both bylaw amendments began July 1, 2014. Evaluation of the amended bylaws was conducted by the Ontario Tobacco Research Unit in collaboration with Toronto Public Health.

On January 1, 2015, new regulations under the *Smoke-Free Ontario Act* (SFOA) came into effect superseding some outdoor public spaces in Municipal Code Chapter 608. The new SFOA regulations ban smoking within the boundaries and 20 metres surrounding playgrounds and sports fields, and restaurants and bar patios. Municipal Code Chapter 608 continues to be enforced in areas not included in the new outdoor SFOA regulations.

### Objective

The purpose of the evaluation was to assess:

1. The effectiveness of the amended bylaws at restricting smoking and protecting the public from secondhand smoke exposure in the outdoor spaces affected by the amended bylaws
2. The implementation and enforcement of the amended bylaws
3. The impact on the use of outdoor spaces affected by the amended bylaws
4. The impact on smoking behaviour

### Methods

This was a two-phase evaluation. The first phase was conducted in May – July 2014 before enforcement of the amended bylaws began. It included a street intercept survey of smokers and non-smokers, and air quality measurements and observations outside public building entrances. The second phase was conducted one year later in May – September 2015 and included key informant interviews with staff involved in the implementation and enforcement of the amended bylaws, analysis of administrative data, a second street intercept survey, and follow-up air quality measurements and observations outside public building entrances.

### Street Intercept Surveys

Baseline street intercept surveys were conducted in June – July 2014 at 14 venues affected by the amended bylaws across Toronto, including: six public parks with a playground, splash pad, and/or sports field; outside six public building entrances; one public beach where swimming is permitted; and, one ferry terminal waiting area. The follow-up street intercept surveys were conducted in June 2015 at 14 venues affected by the amended bylaws and new outdoor SFOA regulations across Toronto. Twelve of the 14 venues included in the follow-up survey were also included in the baseline survey; two public building entrances with low levels of public attendance were replaced by two streets with a high density of restaurant and bar patios in the follow-up survey.<sup>i</sup> Venue selection was guided by a history of complaints regarding outdoor smoking, location in the city<sup>ii</sup> and volume of public attendance.

We successfully obtained our target sample of 150 smokers and 150 non-smokers for both the baseline and follow-up surveys. About half of the people who were approached completed the survey (response rate: 56.6% at baseline and 45.9% at follow-up; refusals were not tracked by smoking status).

### Air Quality Measurements and Entranceway Observations

Particulate matter with a diameter of 2.5µm or less (PM<sub>2.5</sub>) is the industry standard measure of environmental tobacco smoke.<sup>1</sup> Real-time levels of PM<sub>2.5</sub> were measured outside the entrances of 30 public buildings across Toronto in May – June 2014 (baseline) and again in May 2015 (follow-up). Building selection was guided by a history of complaints about smoking in the building entranceway, location in the city,<sup>iii</sup> and the presence of 9 metres of building property in front of the entrance. Measurements were taken by trained Public Health Inspection Students using TSI SidePak™ AM510 Personal Aerosol Monitors<sup>2</sup> while following the protocol established by Kaufman

<sup>i</sup> In 2015, OTRU conducted a separate evaluation of the new SFOA outdoor smoking regulations. Restaurant and bar patios were added as survey collection venues and two questions related to smoking behaviour and secondhand smoke exposure on restaurant and bar patios were added to the follow-up survey. Responses from these questions will not be presented in this report.

<sup>ii</sup> We selected at least one public building, one park with a playground/splash pad/wading pool, and one sports field in each of the north, west, east and central parts of Toronto. In the end, we conducted the surveys in two sites in the north, two sites in the east, eight sites in the central and two sites in the west parts of Toronto.

<sup>iii</sup> Air quality measurements and observations were conducted at three buildings in the north, four buildings in the east, 19 buildings in the central and four buildings in the west parts of Toronto.

et al.<sup>3</sup> Air quality measurements were taken as close to the entranceway as possible (range: 1 to 8 metres) in 30 minute sessions. For comparison purposes, 15 minute background air quality measurements were taken 9 – 12 metres from the entranceway where no smokers were present.

Unobtrusive observations were captured outside the same sample of 30 public building entranceways during the air quality measurements data collection period. These observations included: the number of lit cigarettes within 9 metres and 9 – 12 metres from the entranceway, and the presence of bylaw no smoking signage.

### Administrative Data Analysis

The number of complaints received and the number of charges issued for observed non-compliance in public building entranceways (Municipal Code Chapter 709) from January 1, 2014 – December 31, 2015 was obtained from Toronto Public Health. Similar public complaint and enforcement data related to non-compliance in parks (Municipal Code Chapter 608) was not available from the Municipal Licensing & Standards Office.

### Key Informant Interviews

Semi-structured interviews were conducted by telephone with nine key informants one year after implementation in June – September 2015. Key informants were defined as people involved in the implementation or enforcement of the amended bylaws including Tobacco Enforcement Officers (TEO; Municipal Code Chapter 709), Bylaw Enforcement Officers (BEO; Municipal Code Chapter 608), and Toronto Public Health (TPH) staff.

Interviews focused on identifying factors facilitating and/or impeding the amended bylaw implementation and the effect of the amended bylaws on the work of PHU staff (e.g., handling complaints and questions, enforcing, placing signage).

## Findings

### Street Intercept Surveys

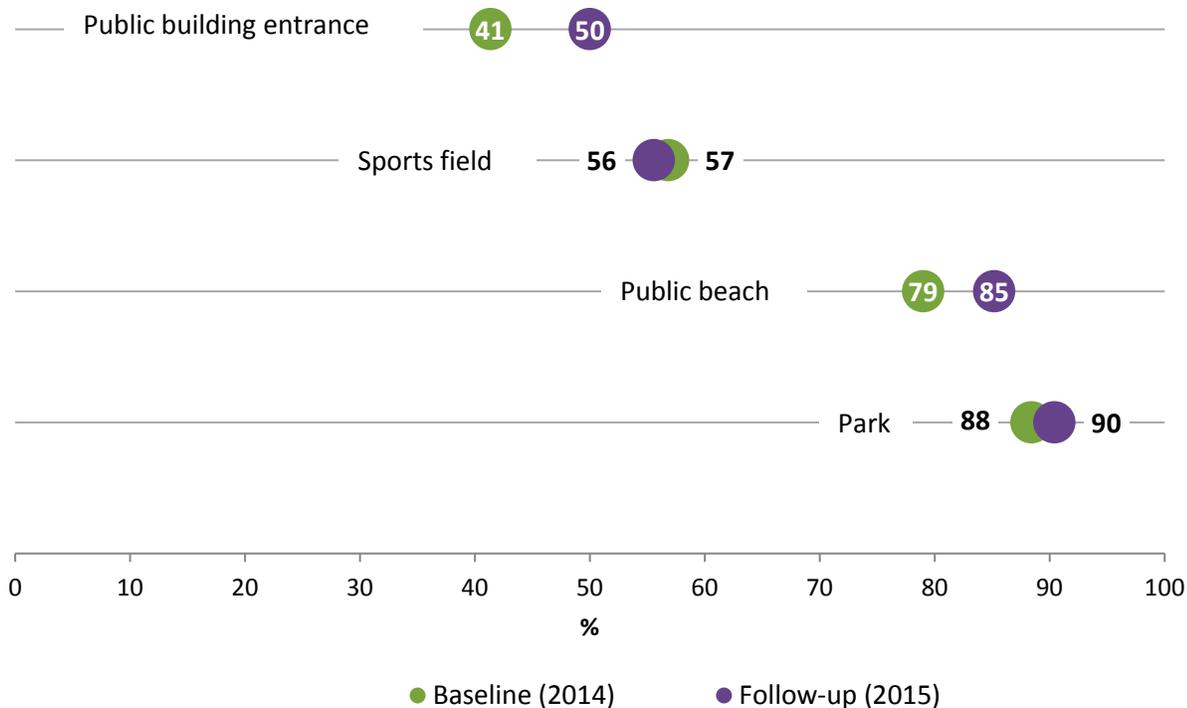
The majority of participants were male (58% at both baseline and follow-up), between the ages of 18 and 39 years (60% at baseline and 62% at follow-up), and had completed post-secondary

school (67% at baseline and 65% at follow-up). Over three-quarters of smokers reported smoking daily (83% at baseline and 77% at follow-up).

At follow-up, more than half of the surveyed smokers reported smoking at least sometimes when they visited a park (90%), a public beach that permitted swimming (85%), a sports field (56%) and near the entrance to a public building (50%; Figure 1). The level of self-reported smoking behaviour at outdoor public spaces at follow-up did not significantly differ from the smoking behaviour reported at baseline.

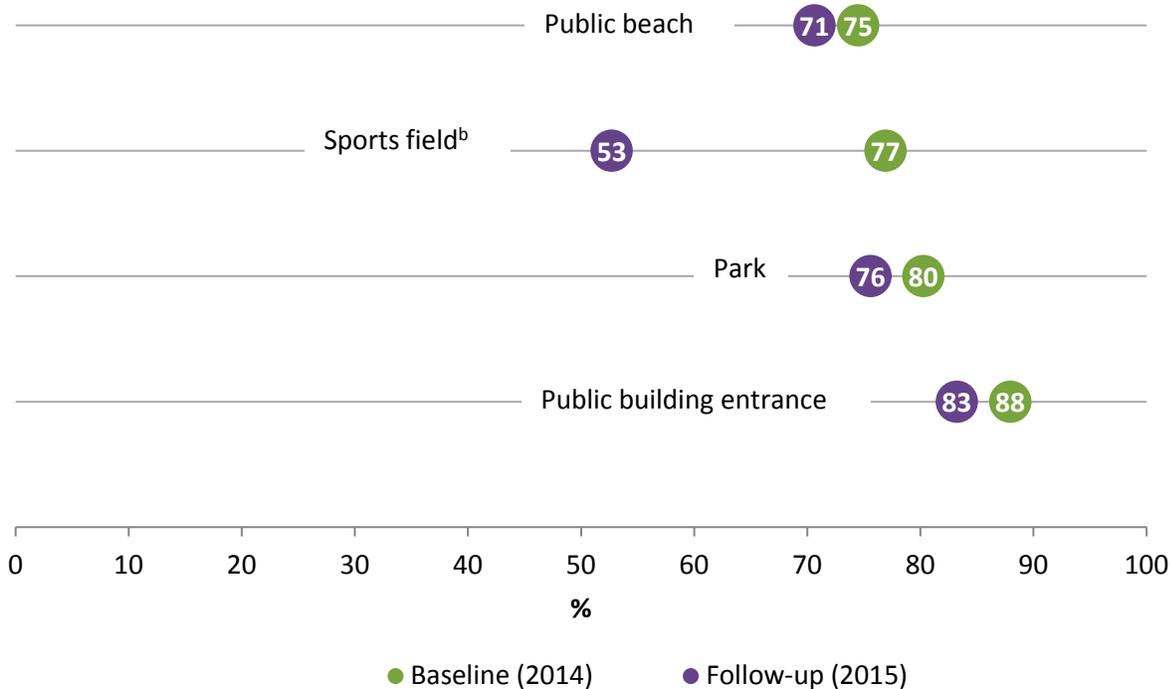
Two-thirds or more of all respondents at follow-up reported being exposed to secondhand smoke at least sometimes when entering a public building (83%), when visiting a park (76%), or a public beach where swimming is permitted (71%); while just over half reported being exposed to secondhand smoke at a sports field (53%; Figure 2). The level of self-reported secondhand smoke exposure at outdoor public spaces at follow-up did not significantly differ from the secondhand smoke exposure reported at baseline, except at sports fields where there was a decrease from 77% to 53% ( $p < 0.0001$ ).

**Figure 1: Frequency of Smoking (Sometimes and Every Time) at Select Outdoor Public Spaces,<sup>a</sup> %, Toronto, 2014 and 2015**



<sup>a</sup> Among respondents who reported visiting the selected outdoor public spaces

**Figure 2: Frequency of Exposure to Secondhand Smoke (Sometimes and Every Time) at Select Outdoor Public Spaces,<sup>a</sup> %, Toronto, 2014 and 2015**



<sup>a</sup> Among respondents who reported visiting the selected outdoor public spaces.

<sup>b</sup> Significant difference in reported levels of secondhand smoke exposure between baseline and follow-up ( $p < 0.0001$ )

Most respondents at follow-up reported that the amended bylaws have not affected how frequently they visit public beaches that permit swimming (79%) and public buildings (78%), or use sports fields or parks (75%). Compared to smokers, non-smokers were more likely to report that the implementation of the amended bylaws had significantly increased their use of parks or sports fields (Odds Ratio (OR) = 7.7 or nearly 8 times more likely to use), visits to public beaches that permit swimming (OR = 5.9 or nearly 6 times more likely to visit) and public buildings (OR = 7.9 or nearly 8 times more likely to visit;  $p < 0.0001$  for each outdoor public space).

A third of smokers reported that the amended bylaws had helped them cut down on the number of cigarettes that they smoked (39%) and made them more likely to quit smoking (29%).

## Entranceway Observations

Results displayed in Table 1 suggest that, on average, fewer smokers were observed smoking cigarettes within 9 metres and 9 – 12 metres of the 30 public building entranceways at follow-up compared to baseline (< 9 metres: 0.71 to 0.28 smokers,  $p < 0.0001$ ; 9-12 metres: 0.80 to 0.50

smokers,  $p < 0.0001$ ). Although the maximum number of smokers observed smoking within 9 metres of the entranceway increased at follow-up (15 at follow-up compared to 11 at baseline), increases in the number of smokers were only observed at 4 public building entrances. Fewer smokers were observed smoking within 9 metres of the entranceway at 22 public buildings at follow-up, while no change in the number of smokers was observed at 4 public building entranceways.

**Table 1: Average Number of Smokers Observed Within 12 Metres of Entranceways in Sample of 30 Public Building Entranceways, Toronto, 2014 and 2015**

	Baseline		Follow-up		<i>p</i> -value <sup>a</sup>
	Mean (SD)	Minimum – Maximum	Mean (SD)	Minimum – Maximum	
Number of lit cigarettes within 9 metres of entranceway	0.71 (1.17)	0 – 11	0.28 (1.14)	0 – 15	< 0.0001
Number of lit cigarettes 9 – 12 metres from entranceway	0.80 (1.35)	0 – 11	0.50 (0.99)	0 – 8	< 0.0001

<sup>a</sup> Paired t-test

The number of public buildings with visible bylaw no smoking signs posted outside the entranceway decreased from baseline (n=20) to follow-up (n=19).

## Air Quality Measurements

At baseline, median values for PM<sub>2.5</sub> were the same for the background (22µg/m<sup>3</sup>) and entranceway measurements when no lit cigarettes were present (22µg/m<sup>3</sup>; Table 2). Median PM<sub>2.5</sub> values increased when 1 or more lit cigarettes were present in the entranceway (25µg/m<sup>3</sup>). The maximum PM<sub>2.5</sub> value recorded was 442µg/m<sup>3</sup> when one lit cigarette was present within one metre of the monitor.

**Table 2: Outdoor PM<sub>2.5</sub> (µg/m<sup>3</sup>) by Number of Lit Cigarettes, Raw Data (10s Average), Toronto, 2014**

	Measurement time, min	Mean (SD) PM <sub>2.5</sub>	Median PM <sub>2.5</sub>	Minimum – Maximum PM <sub>2.5</sub>
Background	959	27.4 (25.8)	22	1 – 419 <sup>a</sup>
Entranceway				
0 cigarettes	1141	26.0 (17.8)	22	2 – 144
1 or more lit cigarettes	706	31.2 (27.4)	25	3 – 442

<sup>a</sup> Temporary high levels of PM<sub>2.5</sub> were noted during background measurements when a smoker or vehicle passed by the monitor.

One year later, the median values for PM<sub>2.5</sub> from the same group of public buildings entrances at follow-up were higher in magnitude and differed by each measurement position. Median values for PM<sub>2.5</sub> were lowest during the background measurement (31µg/m<sup>3</sup>) and increased to 34µg/m<sup>3</sup> during the entranceway measurement when no lit cigarettes were present (Table 3). Median PM<sub>2.5</sub> values also increased when 1 or more lit cigarettes were present in the entranceway (37µg/m<sup>3</sup>). The maximum PM<sub>2.5</sub> value recorded was 384µg/m<sup>3</sup> when one lit cigarette was present within one metre of the monitor.

**Table 3: Outdoor PM<sub>2.5</sub> (µg/m<sup>3</sup>) by Number of Lit Cigarettes, Raw Data (10s Average), Toronto, 2015**

	Measurement time, min	Mean (SD) PM <sub>2.5</sub>	Median PM <sub>2.5</sub>	Minimum – Maximum PM <sub>2.5</sub>
Background	802	32.5 (12.5)	31	3 – 184
Entranceway				
0 cigarettes	1632	35.8 (13.1)	34	4 – 226
1 or more lit cigarettes	223	40.5 (20.1)	37	11 – 384

Despite a decrease in the number of smokers observed within 9 metres of public building entranceways at follow-up, median PM<sub>2.5</sub> values were higher compared to baseline when one or more lit cigarettes were present posing a continued risk to public health.

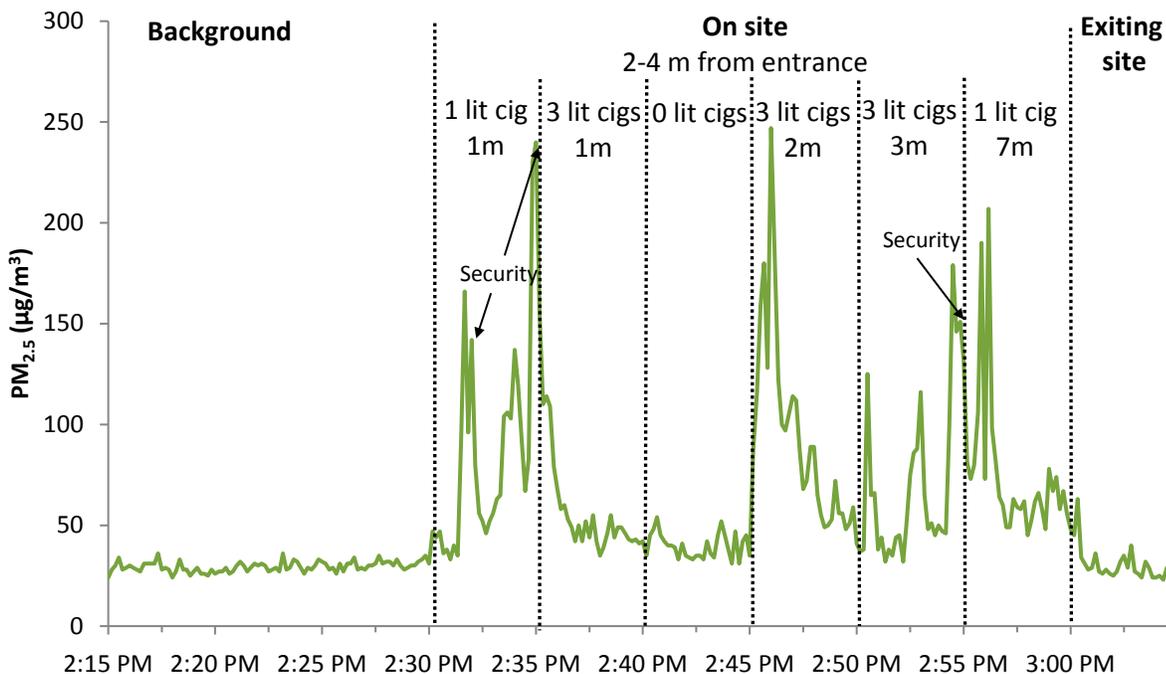
The general increase in the magnitude of PM<sub>2.5</sub> values measured at follow-up could be attributed to a number of factors, including:

1. Poorer air quality in general – Ambient air quality levels obtained from the Ontario Ministry of Environment and Climate Change<sup>4</sup> showed a similar comparative increase in PM<sub>2.5</sub> levels between baseline and follow-up data collection dates.
2. Construction – More than twice as many observations of construction activity (e.g., road work, building) were recorded during the air quality measurements at follow-up compared to baseline (165 minutes at follow-up vs. 77 minutes at baseline). Construction generates air pollution thereby increasing the level of particulate matter in the air.

- TSI SidePak™ AM510 Personal Aerosol Monitors – Air quality measurements were conducted 13 months apart, which may have resulted in machine calibration differences.

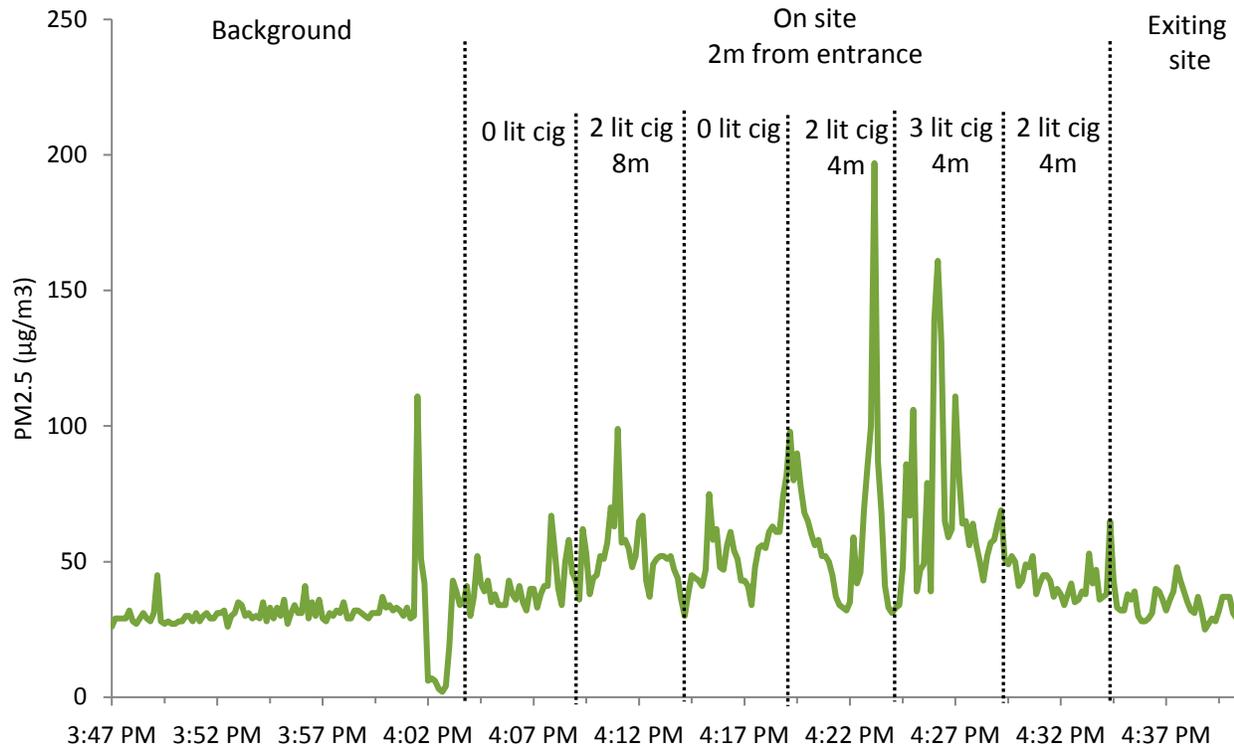
Figure 3 displays an example of an air quality measurement session at baseline outside the entrance to a shopping mall on a day with minimal to no wind and no precipitation. On average, the background  $PM_{2.5}$  was  $29.4\mu\text{g}/\text{m}^3$  and the entranceway  $PM_{2.5}$  was  $69.4\mu\text{g}/\text{m}^3$ . Building security came to the entranceway three times during the measurement period (noted in Figure 3) to ask smokers to move, after which a temporary drop in  $PM_{2.5}$  levels was observed.

**Figure 3:  $PM_{2.5}$  ( $\mu\text{g}/\text{m}^3$ ) Levels Outside the Entrance to a Toronto Shopping Mall (10s Average), May 22 2014**



For comparison purposes, Figure 4 displays the air quality measurement captured at the same entranceway one year later on a day with light wind blowing towards the machine and no precipitation. On average, the background  $PM_{2.5}$  was  $36.2\mu\text{g}/\text{m}^3$  and the entranceway  $PM_{2.5}$  was  $40.6\mu\text{g}/\text{m}^3$ . Observational notes and the variation in median  $PM_{2.5}$  values demonstrate that smoking continued to occur within 9 metres of this entranceway a year later.

Figure 4: PM<sub>2.5</sub> (µg/m<sup>3</sup>) levels outside the entrance to a Toronto shopping mall (10s average), May 25 2015



## Administrative Data Analysis

The number of public complaints received by Toronto Public Health about smoking in public building entranceways (Municipal Code Chapter 709) increased from a total of 185 complaints in 2014 to 234 complaints in 2015 (Table 4). This suggests a moderate increase in awareness of the amended bylaw a year after implementation. No charges had been laid for smoking in public building entranceways as of December 2015.

Table 4: Number of Public Complaints for Smoking in Entranceways, 2014 and 2015

	2014	2015
January – March	37	47
April – June	44	80
July – September	55	59
October – December	49	48
<b>TOTAL</b>	<b>185</b>	<b>234</b>

Source: Toronto Public Health

### Key Informant Interviews

#### Public Education

At a population level, no broad education campaign was conducted to inform the public of the new smoking restrictions in public building entranceways or in select outdoor public spaces. One key informant noted that this was due to a small budget. Instead, information about the amended bylaws were posted on publicly accessible electronic locations such as TPH's main website and the Live Tobacco-Free website, which included a 'Q & A' document and a link to download the bylaw no smoking signage. Messages were also posted on Facebook and Twitter.

Internal communication to City of Toronto staff about the amended bylaws was extensive. The Medical Officer of Health sent a letter outlining the amended bylaw banning smoking in public building entranceways to the City Manager, who shared the information with City staff. Targeted emails were also sent to internal departments that have relationships with proprietors affected by the amended bylaws. Notices were put in the internal city e-newsletters and on TPH's intranet. Finally, scripts were provided to the city's 3-1-1 and Public Health Intake phone operators to assist in responding to public inquiries.

Education to public building proprietors was executed at a high level. The Medical Officer of Health sent information letters to Business Improvement Areas across the city to reach a wide range of building proprietors. TPH staff presented at meetings for the Toronto Association of Business Improvement Areas and Building Owners and Managers Association, and also reached out to Toronto Community Housing about the amended bylaws.

In a few instances, responding to complaints also afforded TPH the opportunity to engage with larger corporations (e.g., Smart Centres and Cadillac Fairview). Large groups were targeted in order to disseminate information broadly about the amended bylaws with the hopes that the information would cascade down to smaller businesses and properties affected by the amended bylaws.

The perceived effectiveness of this education strategy was mixed among enforcement staff. One TEO felt that this was an effective strategy since it resulted in people calling the city's information line looking for more information about the amended bylaws. However, two TEOs noted that the strategy had not been effective in gaining compliance with posting the required bylaw no smoking signage.

### Education as Part of Enforcement

When responding to a complaint about smoking in a public building entranceway, TEOs reported that their first response is to provide education to the proprietor since many are not aware of the amended bylaw. This was seen as an effective education strategy.

“It has been effective in terms of the complaint response because we’re actually in attendance, we have the opportunity to speak to a property manager or a proprietor and inform them of the new rules.” (TEO)

Similarly, BEOs reported that they provide verbal education and a pamphlet about the amended bylaw to the public when non-compliance is observed during a park inspection as many are not aware of the new smoking restrictions.

All of the TEOs reported that they provide proactive education when they conduct *Smoke-Free Ontario Act* restaurant and bar or enclosed workplace inspections. This would include providing proprietors copies of the amended bylaw, the ‘Q & A’ document, and bylaw no smoking signage. More specifically, TEOs focused the proactive education on the employer/proprietor responsibility to ensure that no one smokes within 9 metres of a public building entranceway.

### Improvement to Education

Suggestions for improving the education related to the amended bylaws varied. A couple of TEOs suggested radio ads as a means to increase public awareness by reaching the largest audience, which in turn would increase compliance. TEOs also noted that increased public awareness often leads to increased call volume to report non-compliance.

“The more people know about the rule, the more complaints we’ll receive. Then we’ll have specific addresses to go to and attend, and then we can do education.” (TEO)

However, not all TEOs supported the idea of broad education since it would draw attention to a bylaw that is not completely enforceable (e.g., bylaw does not apply to public entrances that open directly onto the sidewalk; see Challenges section for more detail on this issue).

Others suggested an education campaign targeted at business owners to increase awareness of the amended bylaw and proprietor responsibilities.

Another suggestion included increasing resources to facilitate proper follow-up with building proprietors (Municipal Code Chapter 709) who received information cascaded down from their corporation or head office. A lack of direct contact with a TEO resulted in building proprietors not always understanding their responsibilities for having a plan in place to address non-compliance (e.g., asking smokers to step away from the entrance and relocate at least 9 metres away). In a follow-up, the TEOs could verify if the bylaw no smoking signage was posted properly and if the proprietor had developed a plan to address non-compliance. However, there is currently no capacity to do follow-ups.

### Enforcement of Municipal Code Chapter 709

Enforcement of the smoking ban at public building entranceways is conducted by TEOs who are also responsible for enforcing all aspects of the SFOA. Bylaw enforcement is conducted primarily in response to complaints. There is insufficient enforcement staff to conduct proactive enforcement. At the time of the interviews, there were 13 TEOs on staff to inspect the multitude of public buildings in Toronto.

Once a complaint is received, a TEO will make initial contact over the phone within 24-48 hours. Then the TEO would go out and investigate the nature of the complaint to determine the merit while also engaging the proprietor in a conversation about proprietor responsibilities. One key informant explained the ineffectiveness of a complaint-based enforcement approach.

“By being complaint-driven you’re only attending that one place that you got that complaint about instead of cascading information appropriately. So it’s not really effective. It doesn’t allow you to go and lay charges and do follow-up which has the net effect of gaining greater compliance.” (TPH staff)

A progressive enforcement approach is taken to enforce the bylaw. This entails starting with warnings, providing education, and dealing with any questions or problems that might arise. Only if non-compliance persists and no attempts at due diligence are made by the proprietor would a charge be laid. At the time of the interview, TEOs reported that they were still in an education phase of enforcement and therefore no charges had been laid to date for smoking in public building entranceways.

### Enforcement of Municipal Code Chapter 608

Enforcement of the smoking ban in outdoor park amenities affected by Municipal Code Chapter 608 is conducted by the city's Municipal Licensing and Standards' Parks Bylaw Enforcement Officers (BEO). Enforcement is conducted both proactively and in response to complaints. At the time of the interview, there were 10 BEOs on staff to inspect approximately 1,600 parks in Toronto.

One BEO who works the day shift (6 AM to 2 PM) reported very few incidents of smoking in parks. The BEO attributed the high compliance to the type of individuals who use parks during daytime hours (i.e., moms and kids) and who generally do not smoke. The few times the BEO has seen smoking in a regulated area of a park has been when the park is located near a coffee shop. In this situation, smokers tend to sit on a park retaining wall or bench to drink their coffee and smoke a cigarette. However, the retaining wall or bench backs onto a regulated park amenity (e.g., playground) and therefore smoking is banned within 9 metres. The BEO would inform the smoker about the infraction, provide education, and then ask them to move to a different location in the park away from the regulated area. No warnings or charges have been issued by this BEO up to the date of the interview.

One BEO who works the afternoon shift (11 AM to 7 PM) reported observing several instances of non-compliance in parks during inspections. Generally, the BEO would approach the individuals and provide education about the amended bylaw smoking restrictions when non-compliance was observed.

“If I come across two or three guys I just usually identify myself, the reason why I'm talking to them and the reason why they need to comply with the smoking provisions of the bylaw. A lot of them don't know [about the bylaw]. There's so many bylaws in the City you can't keep track of it, right? And, you know, your approach combined with proper communication skills, 8 out of 10, I usually get compliance. And a lot of them apologize too.” (BEO)

In contrast to the day shift BEO that was interviewed, the afternoon shift BEO had laid charges to individuals who were smoking in parks. At the time of the interview, three charges had been issued by the afternoon shift BEO: two for smoking at a sports field and one for smoking in the service line at the Toronto Island Ferry Terminal.

### Perceived Changes in Compliance

Opinions on the changes in compliance were mixed among enforcement staff. Two TEOs felt that compliance had improved for regulated premises that had been the subject of a complaint and had consequently received education from a TEO. A TPH staff member noted that some public building properties have had great buy-in, welcomed the amended bylaw, developed their own communication plan and posted items about the bylaw to inform staff. Some TEOs also noted that they had observed changes in the location of smokers outside buildings:

“They do stand off to the side. It might not be 9 metres completely. It might be something like 5 or 6, but you can see a change in public behaviour. It’s not going straight in front of the door anymore in most cases.” (TEO)

TEOs proposed a few explanations for the increase in compliance, including: the posting of bylaw signage, education, engagement with public building proprietors in the development of an action plan, and communication with building proprietors about their responsibilities, due diligence and liability with regards to the amended bylaw.

However, not all TEOs felt that compliance had changed. One TEO reported that it was difficult to gauge since enforcement is complaint-driven; while another TEO noted that smoking behaviour outside building entranceways had not changed:

“Overall, from me driving around, I do not see a difference between pre-implementation and post-implementation.” (TEO)

One TEO suggested that laying a few charges for smoking in public building entranceways would be effective at increasing compliance and encouraging the public to take the amended bylaw seriously.

In parks, neither of the two BEOs interviewed believed that compliance with the smoking restrictions had changed in the affected park amenities. One BEO reported that compliance was high both before and after the amended bylaw was implemented. However, the other BEO noted that the amount of cigarette butts littered in the parks demonstrated that compliance had not increased.

### Suggested Improvements to Enforcement

Most of the key informants suggested hiring more staff to enforce both amended bylaws, including dedicated staff to enforce Municipal Code Chapter 709. This would also allow more opportunity to follow-up with proprietors after an inspection or education visit was conducted.

One TEO noted that a spreadsheet tracking all the locations that have received complaints would be helpful, particularly if the spreadsheet noted whether Municipal Code Chapter 709 applied to the entranceway or not.

Finally, one key informant suggested a toolkit be prepared with information for proprietors that provided directions to fulfill their responsibilities. This could include draft emails to tenants, fact sheets, signs, notes about where to put up signs, etc. Having a toolkit available would save TEOs time from drafting one-off letters.

### Facilitators to Implementing Amended Bylaws

Key informants provided a number of factors that helped facilitate the implementation of both the amended bylaws.

1. Education

Providing proprietors with copies of the bylaw, the 'Q & A' fact sheet, and the no smoking signage helped with the implementation of the smoking ban in public building entranceways. Talking to people in parks about the amended bylaw helped increase public awareness and acceptance of the smoking ban in regulated outdoor public spaces.

2. Social Norms

Public acceptance of the amended bylaws was attributed to smoking bans becoming the social norm.

“Most cases the adults have been so trained over the last little while, well few years now, about smoking they're kind of used to it now, you know? ‘Okay. I can't smoke here, I can't smoke there.’ You know it seems to be having an effect that way.” (BEO)

### 3. Organizational Support

Collaboration and support from enforcement colleagues, cross-collaboration between departments (e.g., Municipal Licensing and Standards and Toronto Public Health, web editing staff, etc.) and strong management support helped facilitate the implementation of the amended bylaws.

### 4. Enforcement Staff

Previous experience of enforcement staff was very helpful and led to a smooth implementation of the amended bylaws. One key informant noted that TEOs, in particular, were very good at educating the public and troubleshooting issues with public building proprietors about possible solutions where the application of the amended bylaw was not clear.

### 5. Signage

Bylaw no smoking signage was seen as an effective method to promote the bylaw and increase compliance.

“...some people don’t think the laws exist unless there are signs.” (TEO)

Placing a digital PDF copy of the bylaw no smoking signage on the website was effective in making the signs available to all public buildings without incurring the cost of producing physical signs. In some cases, premises had posted the PDF copy of the signage before enforcement staff came to do an initial inspection.

### 6. Complaints

Receiving complaints from the public helped to identify areas of concern.

## Challenges to Implementing Amended Bylaws

In contrast, key informants also provided a number of challenges that they encountered when implementing the amended bylaws.

#### 1. 9 metre Frontage from Public Entranceway

The location of the sidewalk (considered a ‘public highway’, which is regulated at the provincial level) has been the primary barrier to implementing the smoking ban in public

building entranceways. In some cases, the entranceway is at least 9 metres away from the sidewalk allowing for the smoking ban to be enforced. However in many instances, the entranceway opens very close to or directly onto the sidewalk which then renders the bylaw unenforceable. This creates an uneven coverage of protection across the city.

“The place where the law could have the most effect [downtown] is also the place where the law doesn’t apply for the most part.” (TEO)

The uneven application of the amended bylaw has also affected building proprietors. After filing a complaint about smoking in the entranceway, building proprietors become frustrated when they learn that the smoking ban does not apply due to the location of the sidewalk. Some TEOs still provide the bylaw no smoking signage to the proprietor in these instances in hopes that the posted sign will discourage smoking.

### 2. Definition of ‘Public Entranceway’

It was initially challenging for enforcement staff to determine the applicability of the bylaw to building entranceways when responding to complaints (e.g., uncertainty about what public access means).

Handling complaints from tenants about smoke rising from the entranceway to a multi-unit housing building was particularly challenging. In one instance, a multi-unit housing complex had one building with an entranceway to a publically accessible lobby and another building with an intercom system located outside the entranceway. The amended bylaw only applies to the entranceway of the building with the lobby. In this type of situation, the TEO tries to work with the property manager to encourage the co-op/condominium to develop a building specific policy to ban smoking at the entranceway where the amended municipal bylaw does not apply.

### 3. Cigarette Butt Litter

Ashtrays were banned within the 9 metre radius of a public building entranceway as part of the amended bylaw. In some instances, cigarette butt litter became more apparent around entranceways and became a visual reminder for smoking.

“...the ashtrays had to be removed from the 9 metre areas and cigarette butts are all over the place...It is a visual reminder and it’s not good because the whole idea of it was social pressure to reduce the smoking and yet, to me, sometimes it’s more visible.” (TEO)

### 4. Signage

A number of challenges were encountered with regards to posting the bylaw signage in public building entranceways. These included: retail chains or condominiums preferring to create their own corporate signage and placing it in select areas; business proprietors who did not post the signage because they are indifferent to smoking on their property, and dissatisfaction with having to post separate SFOA and bylaw signage.

In parks, a small 4" X 4" universal no smoking sticker was initially placed on the back of existing signage to reduce sign pollution. However, key informants reported that the stickers were so small that the public often did not notice them.

### 5. Confusion with Other Policies

Building proprietors were often confused between the provincial smoking ban on restaurant and bar patios (Smoke-Free Ontario Act) and the municipal smoking ban in public building entranceways, particularly the areas covered by each policy. For example, proprietors would post the municipal bylaw sign on the patios and the SFOA sign outside the entranceways.

Prior to the bylaw, some downtown buildings had implemented smoking policies around entranceways (e.g., 5 metres or 7 metres) and had posted signage. Conflicting municipal signage posted in the building entranceway created confusion for the public as to where smoking was permitted.

### 6. Resources

A variety of challenges related to resources were encountered when implementing the amended bylaws. Enforcement staff were already taxed with enforcing other provincial/municipal policies. Additional resources to hire enforcement staff to focus on bylaw enforcement were only available for a limited time during the implementation phase, not long-term.

“There’s so few staff that we’re somewhat limited in what we can do and I know that smokers don’t even know there’s smoking police. They don’t even know we exist and that they might actually get caught. So I think that deters compliance because people just don’t think there’s ever going to be a problem with it.” (TEO)

Furthermore, enforcement in the city parks only occurs between 6 AM and 7 PM while most of the smoking infractions appear to occur later in the evening.

Due to a limited budget, broad communication and education campaigns were not conducted to inform the public about the amended bylaws and promote social change.

Finally, the 'Q & A' document was only produced in English. The community would be better served if it was offered in other languages.

### 7. Lack of Consultation with Enforcement Staff

Most of the TEOs who were interviewed felt that the lack of consultation with enforcement staff during the development of Municipal Code Chapter 709 negatively affected the implementation of the amended bylaw. TEOs felt that their familiarity with the structure of properties could have provided examples of premises that would not fit the definition of public building entranceway as laid out in the amended bylaw. Consultation with enforcement staff during the bylaw development can provide solutions to grey areas before implementation, thereby reducing the learning curve at the start of the bylaw implementation.

### 8. Property Management Buy-in

Key informant interviews raised the challenge of obtaining buy-in from management of both private and municipal properties, particularly about who will fulfill the proprietor responsibility for taking action when smoking occurs in the entranceway. In some instances property management had suggested staff call TPH to report an issue about smoking in the entranceway; whereas the expectation is that the property management or security staff takes the responsibility to deal with the issue.

“I think there’s definitely a willingness to accept it. That’s not really the problem. It’s just that if it’s viewed as something that nobody will enforce, including the property management, people are less inclined [to accept it].”  
(TPH staff)

### Limitations

Results of the street intercept survey, air quality measurements and entranceway observations should be interpreted with caution as they are based on small, non-random samples and therefore cannot be broadly generalized to the population of Toronto or all public building entrances. In addition, the majority of air quality measurements in building entranceways were recorded when no smokers were present (62% of measurement time at baseline and 88% of measurement time at follow-up). Thus, the lack of smokers observed at these entrances could be due to smokers using other building entrances that were not included in this evaluation.

### Discussion

Overall, data from the street intercept surveys, air quality measurements, administrative data and key informant interviews suggest that smoking continued to occur at similar levels within public building entranceways and regulated outdoor public spaces one year after enforcement of the amended bylaws began. The public also continued to be exposed to secondhand smoke at similar levels in playgrounds, public swimming beaches and in public building entranceways. The only reported significant decrease in secondhand smoke exposure was at sports fields.

One success of the amended bylaw implementation was the positive impact on smokers' quitting behaviour identified in the street intercept surveys. However, overall, the findings suggest that the amended bylaws have had limited impact on smoking and exposure to secondhand smoke in outdoor public spaces affected by the policy within the first year. These findings are consistent with a BC study that showed no significant change in observed smoking behaviour on beaches or in parks two years following a smoke-free policy implementation.<sup>5</sup> This suggests that more time is needed for the public to comply with outdoor smoke-free policies. Further evaluation should be conducted 2 to 3 years after implementation to reassess compliance.

Consideration should be given to increasing enforcement resources for Municipal Code Chapter 709 to help improve building proprietors' understandings of the amended bylaw requirements. Further enforcement in park amenities affected by Municipal Code Chapter 608, especially in evening hours, may also increase compliance. However, since the amended bylaws are largely self-enforcing in nature, increasing public awareness would have the largest impact on improving compliance with the amended bylaws.

### References

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