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

Generating knowledge for public health

Evaluation of the *Smoke-Free Ontario Act* Outdoor Smoking Regulations

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Executive Summary

One of the goals of the Smoke-Free Ontario Strategy is to eliminate involuntary exposure to secondhand smoke in order to eliminate tobacco-related illness and death.[1] To this end, the Government of Ontario implemented regulatory amendments to the *Smoke-Free Ontario Act* that ban smoking in a series of outdoor public spaces. As of January 1, 2015, smoking was banned on and within 20 metres of publicly accessible children's playgrounds, on and within 20 metres of public sporting areas and adjacent spectator areas, and on restaurant and bar patios. A year later, smoking was banned on the outdoor grounds of hospitals with the temporary exemption for a single outdoor designated smoking area.

Since 2015, the Ontario Tobacco Research Unit has been conducting an ongoing formative evaluation of the outdoor smoking regulations. The evaluation aims to assess the implementation and impact of the outdoor smoking regulations using a mixed methods approach (qualitative and quantitative data). Below is a summary of the key findings from the data that was gathered in the 2016-2017 fiscal year.

1. Public awareness of the outdoor smoking regulations was moderate and varied by premise type. The highest level of awareness was for the smoking ban on restaurant and bar patios (74%), followed by the smoking ban on playgrounds and sporting areas (63%) and outdoor grounds of hospitals (58%). Significant increases were noted in public awareness from 2015 to 2016 (patios: 67% to 74%; playgrounds and sporting areas: 54% to 63%).
2. Smokers continued to report smoking at the affected outdoor public places in 2016. The highest frequency of self-reported smoking occurred at park festivals or fairs (71%), followed by restaurant and bar patios (48%), sporting areas (44%) and playgrounds (28%). These estimates are similar to what was reported in 2015.
3. Substantial levels of self-reported exposure to secondhand smoke were reported in 2016, ranging from 80% at park festivals and fairs to 44% at playgrounds. Estimates of self-reported secondhand smoke exposure increased from 2015 to 2016 at sporting areas (58% to 71%), restaurant and bar patios (56% to 60%) and playgrounds (37% to 44%).
4. In 2016, over 70% of inspected sporting areas, playgrounds and restaurant and bars with patios were in compliance with the outdoor smoking regulations (72%, 73% and 93%, respectively). Compliance for each premise type decreased from what was observed in

2015 (the first year of implementation). Less than half of inspected hospitals (40%) were compliant with the outdoor smoking regulations in 2016.

5. The majority of surveyed smokers and nonsmokers noted that their future use of playgrounds, sporting areas and restaurant and bar patios would not be impacted by the implementation of the outdoor smoking regulations.
6. Forty-two percent (42%) of surveyed smokers in 2016 believed that the outdoor smoking regulations made them more likely to quit or cut down the number of cigarettes smoked. This estimate is similar to what surveyed smokers reported in 2015.
7. The top two challenges reported among enforcement staff regarding implementing the outdoor smoking regulations were lack of public awareness and municipality resistance to post no-smoking signage in regulated outdoor public spaces. Other identified notable challenges included: a lack of a province-wide campaign to educate the public about the outdoor smoking regulations, a lack of no-smoking signage posted on hospital grounds, inconsistent interpretation across the Province of the patio definition, high volume of foot traffic in some outdoor public spaces, and capacity constraints to proactively enforce the outdoor smoking regulations across the large number of affected public spaces.
8. Enforcement staff also highlighted a few legislative gaps in the outdoor smoking regulations, such as remaining areas on hospital grounds where smoking is permitted, exclusion of daycare playgrounds from the playground smoking ban, definition and interpretation of 'sporting area,' the boundary of sporting areas and playgrounds, and a lack of a setback from restaurant and bar patios.
9. Improved compliance over time, increased awareness among owners and operators affected by the outdoor smoking regulations and increased public awareness were identified by over half of the surveyed enforcement staff as successes to implementing and enforcing the outdoor smoking regulations. Additional identified successes included: public support; relationship building opportunities with municipalities, hospitals, and restaurant and bar owners; and having a pre-existing municipal bylaw that banned smoking in playgrounds and sporting areas.
10. Enforcement staff noted a number of negative unintended consequences to implementing the outdoor smoking regulations. The delay in implementing the *Electronic Cigarettes Act* vaping ban in public places caused a great deal of misinformation and confusion. The location of smokers at off campus entranceways to hospitals and to areas at entrances and directly beside restaurant and bar patios continued to expose the public to secondhand smoke. Pre-existing municipal bylaws caused confusion about what areas were smoke-free and what distance smokers needed to be from the regulated space.

Finally, the delay in posting no-smoking signage in regulated outdoor public places impacted public awareness and compliance.

11. Positive unintended consequences were also identified by enforcement staff. At least 4 hospitals were planning to go or already have gone 100% smoke-free ahead of the requirement to do so in 2018. In addition, several park festival and fair organizers made their event 100% smoke-free because part of the event site is like a playground or patio.
12. The top suggestions for improvement from the enforcement staff who were surveyed and interviewed included: a province-wide public education campaign; consensus across the Province on the interpretation of patios and sporting areas definition; impose accountability requirement for hospitals to post no-smoking signage and comply with the outdoor smoking regulations; Ministry of Health and Long-Term Care engagement with municipalities to encourage the posting of no-smoking signs in regulated outdoor public spaces; and finally to expand the outdoor smoking regulations to include building entrances, a no-smoking area surrounding restaurant and bar patios, and the entirety of parks, sporting areas and playgrounds.

Overall, while the *Smoke-Free Ontario Act* outdoor smoking regulations have increased protection from secondhand smoke exposure, a high proportion of smokers continue to smoke and a high proportion of Ontarians continue to be exposed in outdoor places where smoking should be prohibited. Consideration should be given to the enforcement staff suggestions for improvement.

Background

In recent years, the Ontario government has taken steps to further protect the public from secondhand smoke exposure, and to protect youth from the dangers of commercial tobacco[i] and the potential harms of e-cigarettes. In particular, the regulatory[2] and legislative amendments[3] to the *Smoke-Free Ontario Act* and the enactment of the *Electronic Cigarettes Act* aim to:

- Reduce youth access to flavoured tobacco by banning the sale of flavoured tobacco products
- Reduce youth access to e-cigarettes by implementing a minimum age of purchase (19 years old), restricting where e-cigarettes are sold, and implementing point of sale display and promotions ban
- Strengthen retailer compliance with minimum age of purchase laws by increasing maximum fines for selling tobacco to youth and clarifying the process for issuing an automatic prohibition to retailers who sell tobacco to youth multiple times
- Reduce physical and social exposure to secondhand smoke by banning smoking in a variety of outdoor settings, including restaurant and bar patios, playgrounds, sporting areas and hospital grounds
- Reduce the physical and social exposure to e-cigarettes in indoor and outdoor settings by banning the use of e-cigarettes in areas where smoking is banned

Implementation of the new policy measures was staggered over time:

- January 1, 2015—implementation of the smoking bans on and within 20 metres of publicly accessible children's playgrounds (including splash pads and wading pools), on and within 20 metres of outdoor sporting areas and adjacent spectator areas (e.g., soccer, baseball and football fields; basketball, beach volleyball and tennis courts; outdoor skating rinks; outdoor pools; outdoor running tracks; and, skateboard parks), and on restaurant and bar patios.

[i] In this document, tobacco refers to commercial tobacco products (i.e., cigarettes, waterpipe, cigars). It does not mean Sacred Tobacco used for Indigenous cultural or spiritual purposes.

- January 1, 2016—implementation of the ban on smoking on all outdoor grounds of hospitals (including public hospitals, private hospitals and psychiatric facilities). However, a temporary provision allowing a single designated smoking area on outdoor hospital grounds is in effect until January 1, 2018.
- January 1, 2016—ban on the sale of flavoured tobacco (excluding menthol) and the sale of e-cigarettes to youth under the age of 19 years was implemented.
- January 1, 2017—the ban on the sale of menthol tobacco came into effect.

The remaining e-cigarette policy measures (i.e., sales restrictions, display and promotion ban and vaping restrictions) have yet to be put in force.

Evaluation Objectives

The Ontario Tobacco Research Unit is conducting an ongoing formative evaluation to assess the implementation and impact of the new tobacco and e-cigarette policy measures implemented to date in Ontario. This evaluation aims to assess:

- Knowledge and attitudes regarding the new policy measures
- Compliance with and enforcement of the new policy measures
- Changes in overall sales and use of flavoured tobacco in Ontario
- The impact of new policy measures on young people's perceptions and perceived access to e-cigarettes
- The extent to which new policy measures protect Ontarians from secondhand smoke in outdoor settings
- Unintended impacts or emerging issues resulting from new policy measures
- Changes in tobacco use including: youth flavoured and overall tobacco use, youth e-cigarette use, adult smoking behaviour

This report will focus on the evaluation findings related to the outdoor smoking regulations on restaurant and bar patios, playgrounds, sporting areas and hospital grounds. Future evaluation newsletters and reports will present the evaluation findings related to the flavoured tobacco ban and e-cigarette policy measures.

Methods

A mixed methods approach (quantitative and qualitative) was employed to provide greater insight into processes and factors affecting the implementation of the new policy measures, and to capture awareness, intended and unintended impacts.

Key Informant Interviews

We conducted 16 Key Informant telephone interviews between October and November 2016. Key Informants were defined as persons who were engaged in the implementation of the new policy measures such as Tobacco Enforcement Managers, Tobacco Enforcement Officers and tobacco control advocates. These semi-structured interviews explored general perceptions about policy measures, including effectiveness of implementation and impacts to date (intended and unintended). Interviews were, on average, 45 minutes in duration. Key Informants were not compensated for their time because the interview was directly related to their work. All interviews were digitally recorded with the participants' permission and transcribed verbatim by a third party provider. A thematic qualitative analysis of interview data was conducted using NVivo 9 software, where transcripts were coded using a coding structure based on the interview guides.

Tobacco Enforcement Manager and Tobacco Enforcement Officer Survey

In November 2016, two separate online surveys were sent to public health unit enforcement staff across the Province. The first survey was sent to all Tobacco Enforcement Managers (or the most appropriate senior enforcement staff member) in which responses from 33/36 public health units were received (92% response rate). The second survey was sent to all Tobacco Enforcement Officers where a total of 83 Tobacco Enforcement Officers from 33/36 public health units completed the survey (out of 124 invited; 67% response rate). Survey participants responded to questions related to public education (managers only), public awareness, perceived compliance, active enforcement (managers only), as well as challenges, successes and unintended consequences (positive and negative) to implementing the new outdoor smoking regulations.

Descriptive statistics summarizing the findings from the surveys were conducted in the online survey tool, Key Survey.

Analysis of Administrative Data

Data from the Ontario Ministry of Health and Long-Term Care's Tobacco Inspection System were obtained for hospital, restaurant and bar patio, playground and sporting area inspections conducted between January 1, 2015 and December 31, 2016. Descriptive statistics summarizing premise compliance with the outdoor smoking regulations, premise education, warnings and charges were conducted in SAS v. 9.4.

Street Intercept and Online Surveys

Street intercept surveys were conducted in 2015 and 2016 to assess smoking behaviour, exposure to secondhand smoke, awareness and the impact of the outdoor smoking regulations.

Between June and October 2015, Algoma Public Health, Lambton Public Health, Toronto Public Health and Windsor-Essex County Health Unit conducted street intercept surveys in locations that were identified as having a history of complaints regarding outdoor smoking and a high volume of public attendance. The majority of street intercept surveys (67%) were completed in outdoor public spaces affected by the outdoor smoking regulations. Questions related to smoking behaviour and exposure to secondhand smoke were asked twice, once for the interview time period (2015) and once for the time period a year before (2014). Incentives in various forms were offered to all participants who completed the 2015 survey. Windsor offered health unit promotional items (e.g., lip-chap, pens), Algoma and Lambton provided $3 Tim Horton's gift cards, and Toronto provided $5 Pizza Pizza gift cards. In total, 1305 respondents completed the 2015 street intercept survey, including 602 smokers (46%).

Between July and September 2016, Kingston, Frontenac and Lennox & Addington Public Health, Lambton Public Health, Oxford County Health Unit and Windsor-Essex County Health Unit conducted street intercept surveys in locations that were identified as having a history of complaints regarding outdoor smoking and a high volume of public attendance. The majority of street intercept surveys (72%) were completed in outdoor public spaces affected by the outdoor

smoking regulations. Respondents were asked the same series of questions as the 2015 street intercept survey, only the questions focused on smoking behaviour, exposure to secondhand smoke, awareness and impact of the of the outdoor smoking regulations at the present time (2016). Incentives in various forms were offered to all participants who completed the 2016 survey. Kingston, Oxford and Windsor offered health unit promotional items (e.g., lip-chap, pens, screen wipes, USBs keys, and grocery freezer bags) and Lambton provided $3 Tim Horton's gift cards. In total, 1139 respondents completed the street intercept survey, including 461 smokers (40%).

Between August and September 2016, Northwestern Health Unit and Thunder Bay District Health Unit (North West Tobacco Control Area Network (T.C.A.N.)) conducted an anonymous online version of the 2016 street intercept survey. Online survey participants were recruited through each public health unit's social media accounts (Facebook and Twitter). Respondents who completed the survey were eligible to enter in a draw for one of four $25 Canadian Tire gift cards. Entries for the draw were captured in an external online survey to maintain anonymity of the outdoor smoking regulations evaluation survey responses. In total, 833 respondents completed the online survey, including 170 smokers (20%).

Eligibility for all three surveys was restricted to participants aged 18 years or older.

Descriptive analyses were conducted for all survey questions. Analyses of the smoking behaviour and exposure to secondhand smoke questions excluded respondents who reported that they did not use each of the regulated outdoor public spaces. McNemar's test for repeated measures was used to assess significant differences between 2014 and 2015 estimates of smoking behaviour and secondhand smoke exposure from the 2015 street intercept survey. Chi-square tests were conducted to assess significant differences between 2015 and 2016 street intercept survey findings. Separate analyses were conducted for the North West T.C.A.N. online version of the 2016 survey due to the different recruitment strategies. Current cigarette smoking was defined as smoking daily or occasionally at the time of the survey. All analyses were conducted in SAS v. 9.4.

Limitations

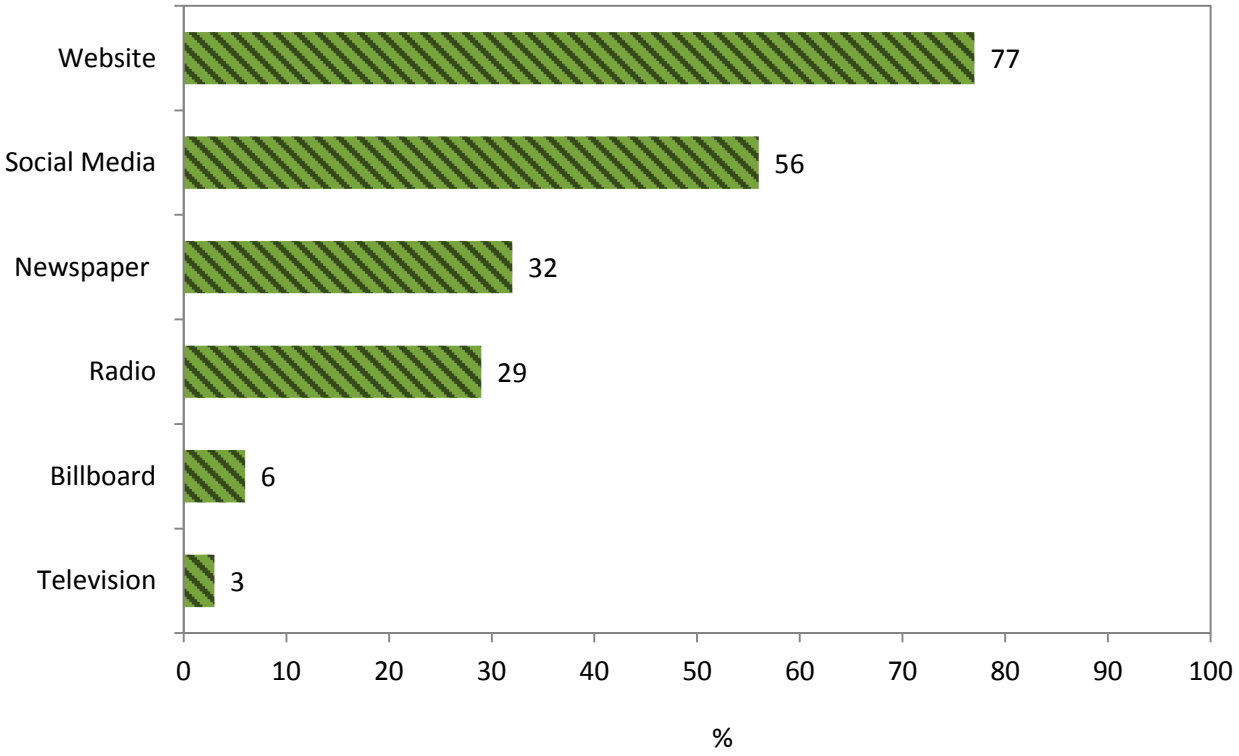
There are a few limitations to this study. First, the street intercept surveys used a convenience sample and therefore the responses are not representative of the Province or the municipalities that participated in the survey. Second, the 2014 street intercept findings are subject to recall bias and may not accurately reflect the true smoking behaviour and exposure to secondhand smoke in the affected outdoor public spaces since the questions were asked in 2015. Third, some of the 2016 street intercept surveys were conducted on paper in the waiting area of the one of the participating public health unit's clinic, which is a departure from the data collection locations used in the other participating public health units. Last, compliance with the outdoor smoking regulations presented from the Tobacco Inspection System data is only a reflection of the outdoor public spaces that were inspected. Due to capacity constraints, not all outdoor public spaces affected by the outdoor smoking regulations are inspected annually. For example, playgrounds, sporting areas, restaurant and bar patios are mainly inspected in response to complaints only.

Results

General Public Education

Public health units are responsible to inform the public about new public health policy measures, both to raise awareness and to encourage compliance.[4] This is achieved through a variety of media outlets. The majority of Tobacco Enforcement Managers reported that their public health unit conducted general education activities regarding the amendments to the *Smoke-Free Ontario Act* (i.e., outdoor smoking regulations, flavoured tobacco ban) through the public health unit website (77%) and the public health unit social media accounts (56%; Figure 1). Other media outlets that were reportedly used for general education activities included newspapers (32%), radio ads (29%), billboards (6%) and television (3%).

Figure 1: Proportion of Public Health Units That Conducted General Education Activities Related to the *Smoke-Free Ontario Act* Amendments, by Media Type, N=34, 2016



Note: Full data table for this graph provided in the Appendix (Table A-1).
Source: Tobacco Enforcement Manager Survey, 2016.

Public Awareness

As Assessed by Tobacco Enforcement Officers

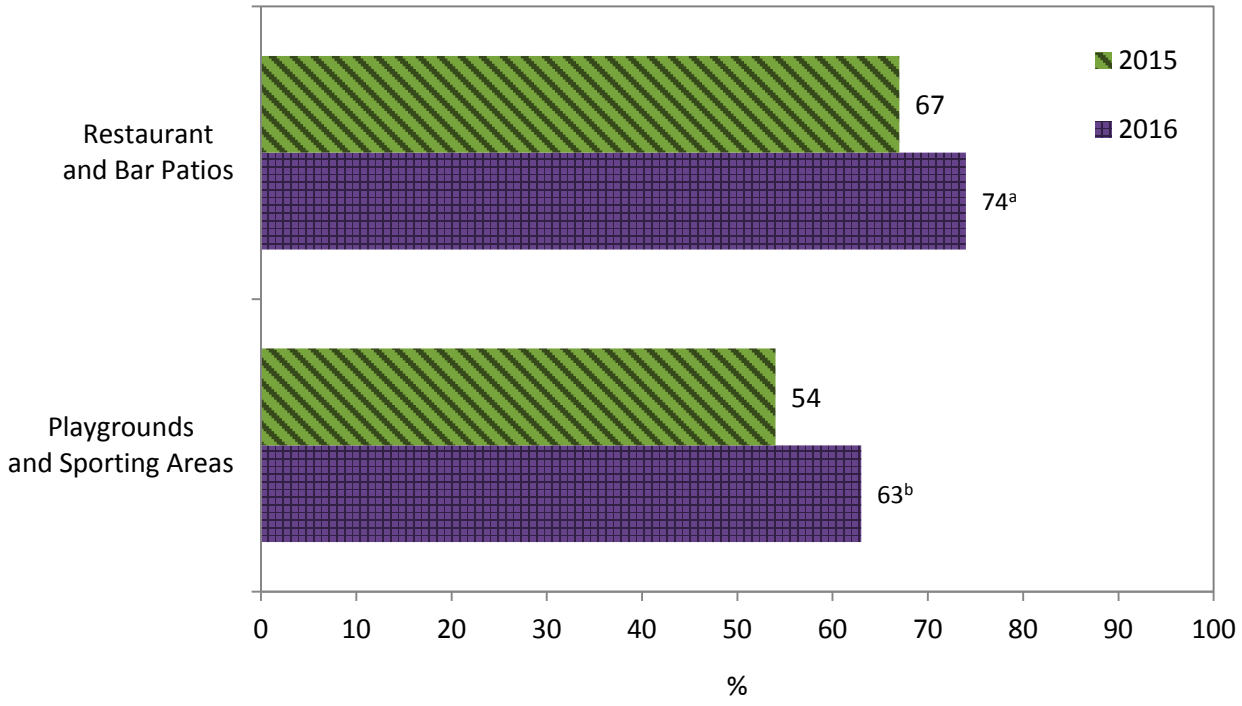
In 2016, Tobacco Enforcement Officers assessed public awareness of the smoking ban on restaurant and bar patios to be very high (91%), whereas only a moderate level of public awareness was perceived for the smoking bans on and within 20 metres of playgrounds (69%), on and within 20 metres of sporting areas (64%) and on the outdoor grounds of hospitals (58%).

As Assessed by Street Intercept Surveys

Among street intercept survey respondents, awareness of the smoking ban on restaurant and bar patios increased from 67% in 2015 to 74% in 2016 ($p < 0.01$; Figure 2). Similarly, awareness of the

smoking ban on playground and sporting areas increased from 54% in 2015 to 63% in 2016 (p <0.001).

Figure 2: Public Awareness of Outdoor Smoking Regulations, 2015 and 2016



[a] Significant increase between 2015 and 2016; p < 0.01
[b] Significant increase between 2015 and 2016; p < 0.001
Note: Full data table for this graph provided in the Appendix (Table A-2).
Source: Street Intercept Surveys, 2015 and 2016.

As Assessed by Online Survey

Seven in ten of the North West T.C.A.N. online survey respondents reported being aware of the smoking ban on restaurant and bar patios (71%) and the smoking ban on playgrounds and sporting areas (67%).

Premise Education

Public health units are responsible for educating stakeholders affected by the new policy measures. Key Informants noted the importance of proactive education, such as education packages and in-person visits, for stakeholders in gaining compliance.

Education Materials

In 2016, one-third or fewer Tobacco Enforcement Managers reported that their public health unit developed education materials (e.g., information letters, fact sheets, pamphlets, and promotional items such as buttons, coasters, posters and postcards) related to the outdoor smoking regulations. Education materials related to the smoking ban in parks during outdoor festivals and fairs[ii] were the most commonly developed (12 public health units), followed by education materials for the smoking bans on and around sporting areas and playgrounds, and on restaurant and bar patios (11 public health units for each regulation). Six public health units developed education materials for the smoking ban on outdoor grounds of hospitals.

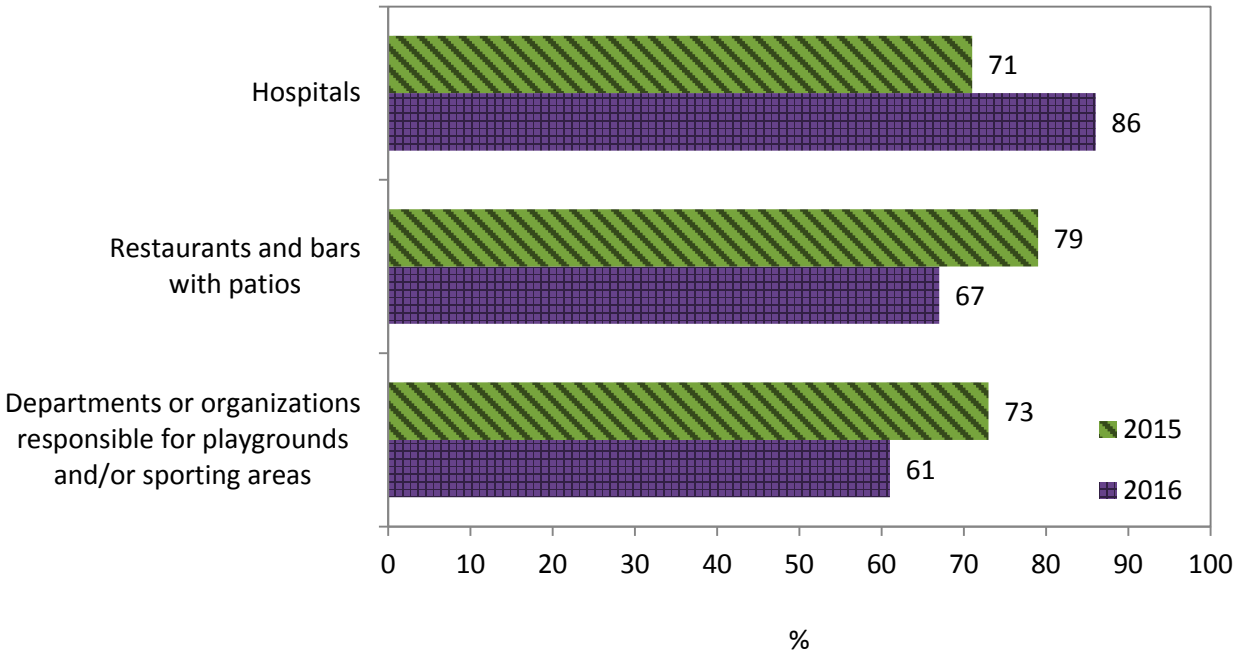
Onsite Education Visits

On average, Tobacco Enforcement Managers reported an increase in the proportion of hospitals that were provided onsite education visits by enforcement staff in 2016 (average across public health units: 71% in 2015 and 86% in 2016; Figure 3). This increase is likely due to the January 1, 2016 implementation of the regulation banning smoking on the outdoor grounds of hospitals.

In contrast, Tobacco Enforcement Managers reported, on average, a decrease in the proportion of onsite education visits related to the smoking bans on and around sporting areas and playgrounds (73% in 2015 to 61% in 2016), and on restaurant and bar patios (79% in 2015 to 67% in 2016). These three outdoor smoking regulations were implemented in 2015. The decrease in education visits is likely due to the shift in focus to other policy measures that were implemented in 2016, such as the smoking ban on outdoor hospital grounds, flavoured tobacco sales ban and youth access to e-cigarettes.

[ii] Although the *Smoke-Free Ontario Act* outdoor smoking regulations do not specifically include special events hosted at public parks, some public health units have applied the definition of restaurant and bar patio to food vendors at park festivals and fairs. This is possible because the *Smoke-Free Ontario Act* regulations define a restaurant and bar patio as an area where food or drink is served, sold or offered for consumption, or an area that is part of or operated in conjunction with an area where food or drink is served, sold or offered.

Figure 3: Average Proportion of Premises That Were Provided Onsite Education Visits by Public Health Unit Enforcement Staff, by Premise Type, 2015 and 2016



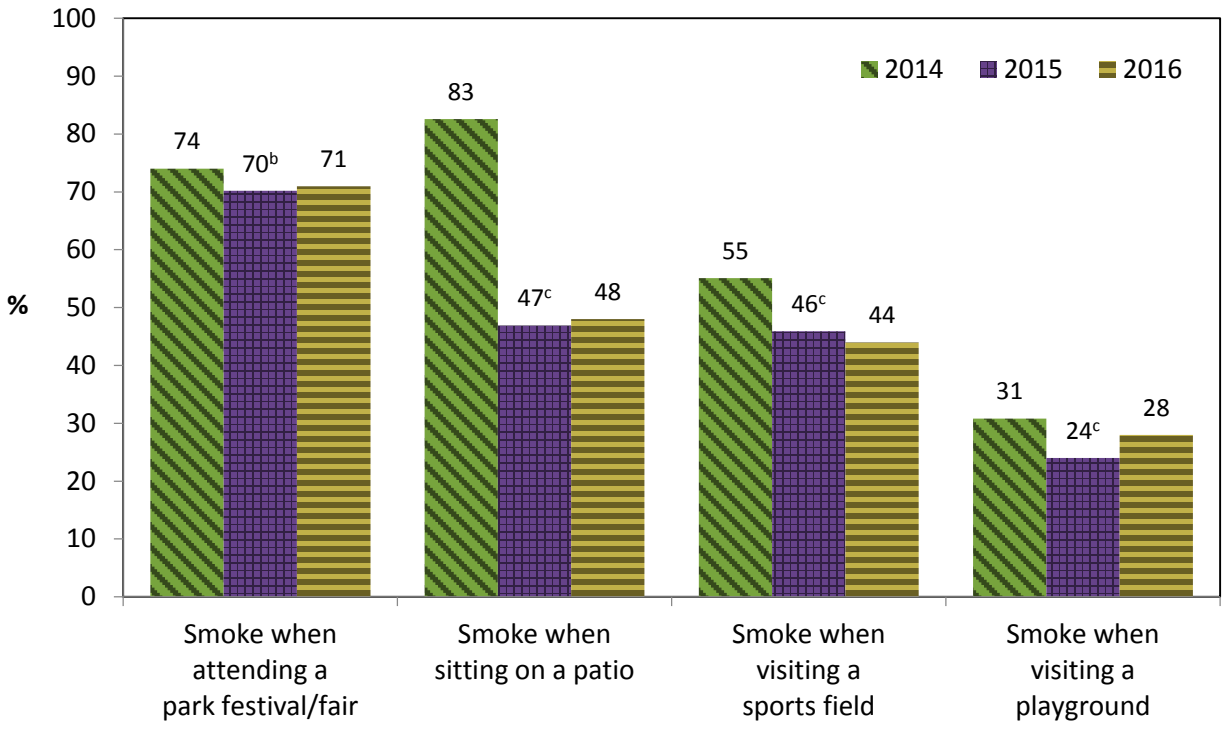
Note: Full data table for this graph provided in the Appendix (Table A-3).
Source: Tobacco Enforcement Manager Survey, 2016.

Self-Reported Smoking Behaviour

As Assessed by Street Intercept Surveys

Eighteen months following the implementation of the outdoor regulations, up to 71% of smokers who completed the street intercept surveys reported that they smoked at least sometimes when visiting venues affected by the outdoor smoking regulations in 2016 (Figure 4). The highest frequency of self-reported smoking in 2016 occurred at park festivals and fairs (71%), followed by restaurant and bar patios (48%), sports fields (44%) and playgrounds (28%). There was no change in the frequency of self-reported smoking between 2015 and 2016. However, smokers reported smoking less frequently at all affected venues in 2015 compared to a year before the survey (2014). The greatest drop in self-reported smoking was on restaurant and bar patios (83% in 2014 vs. 47% in 2015; $p < 0.0001$).

Figure 4: Self-Reported Smoking Behaviour at Public Spaces Affected by the Outdoor Smoking Regulations,[a] 2014-2016.



[a] Among survey respondents who reported visiting the affected outdoor public spaces.
[b] Significant decrease between 2014 and 2015; $p < 0.01$
[c] Significant decrease between 2014 and 2015; $p < 0.0001$
Note: 2014 estimates were derived from a question on the 2015 Survey "At this time last year, how often did you smoke a cigarette when visiting a [affected outdoor public space]?"; 2015 and 2016 estimates were derived from direct questions on the 2015 and 2016 surveys "How often do you smoke a cigarette when visiting a [affected outdoor public space]?" Full data table for this graph provided in the Appendix (Table A-4).
Source: Street Intercept Surveys, 2015 and 2016.

As Assessed by Online Survey

In 2016, the self-reported smoking frequency among online survey respondents from the North West T.C.A.N. was highest when attending park festivals and fairs (78%), followed by restaurant and bar patios (56%), sports fields (54%) and playgrounds (39%). This is a similar pattern of smoking behaviour to what was reported by the 2016 street intercept survey respondents.

Complaints

Tobacco Enforcement Managers reported a range in the number of complaints received for smoking in outdoor regulated public spaces (Table 1). Smoking on restaurant and bar patios was the most commonly received complaint by public health units across the Province (n=87), followed by hospital grounds (n=68), sporting areas (n=67), and playgrounds (n=53). The lowest number of complaints received was for smoking at park festivals and fairs (n=45).

Table 1: Number of Complaints Received for Smoking in Regulated Outdoor Public Spaces, Ontario, 2016

Type of Premise	Number
Restaurant and bar patios	87
Hospital grounds	68
Sporting areas	67
Playgrounds	53
Park festivals and fairs	45

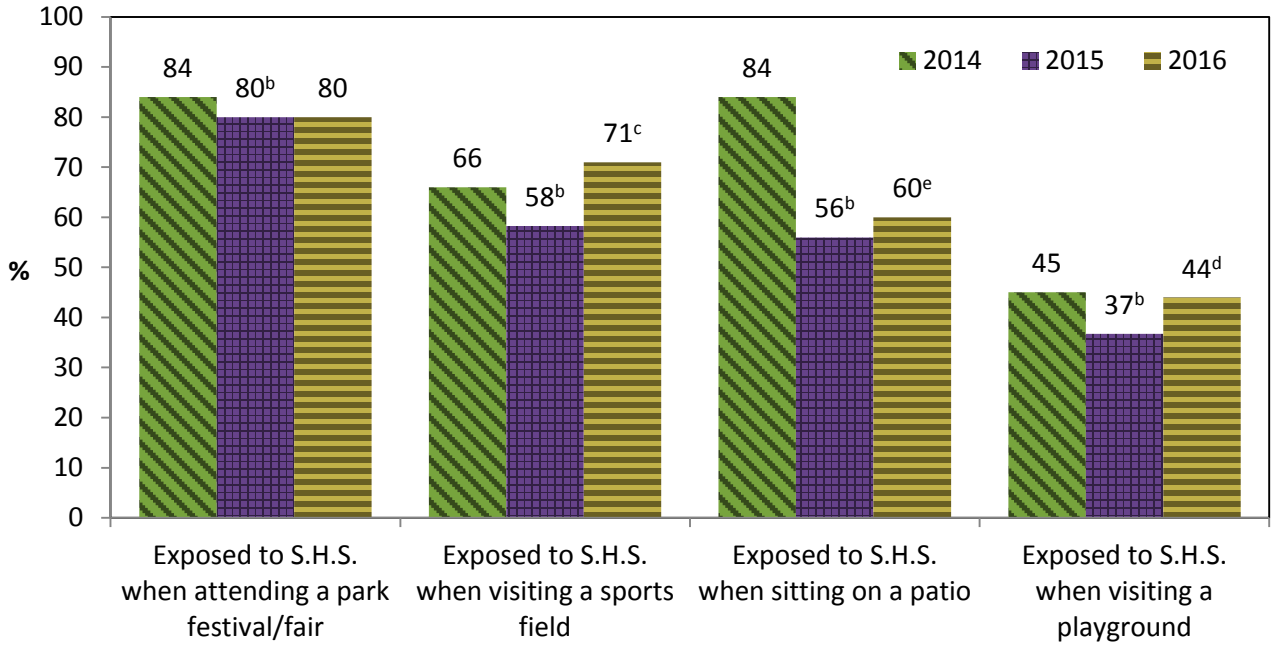
Note: Number of complaints should be interpreted with caution. Only 22 out of 36 public health units reported complaint data.
Source: Tobacco Enforcement Manager Survey, 2016.

Self-Reported Exposure to Secondhand Smoke

As Assessed by Street Intercept Surveys

Substantial levels of self-reported exposure to secondhand smoke continued to be reported in 2016, ranging from 44% at playgrounds to 80% at park festivals or fairs (Figure 5). In contrast to the decreases in self-reported secondhand smoke exposure reported in 2015 for all outdoor regulated public spaces ($p < 0.0001$), increases in self-reported exposure to secondhand smoke were noted between 2015 and 2016 for sports fields (58% to 71%; $p < 0.0001$), playgrounds (37% to 44%; $p < 0.01$) and on restaurant and bar patios (56% to 60%; $p < 0.05$).

Figure 5: Self-Reported Exposure to Secondhand Smoke at Public Spaces Affected by the Outdoor Smoking Regulations,[a] 2014-2016.



[a] Among survey respondents who reported visiting the affected outdoor public spaces.
[b] Significant decrease between 2014 and 2015; $p < 0.0001$
[c] Significant increase between 2015 and 2016; $p < 0.0001$
[d] Significant increase between 2015 and 2016; $p < 0.01$
[e] Significant increase between 2015 and 2016; $p < 0.05$
Note: S.H.S. = secondhand smoke; 2014 estimates were derived from a question on the 2015 Survey "At this time last year, how often were you exposed to other people's tobacco smoke when visiting a [affected outdoor public space]?"; 2015 and 2016 estimates were derived from direct questions on the 2015 and 2016 surveys "How often are you exposed to other people's tobacco smoke when visiting a [affected outdoor public space]?" Full data table for this graph provided in the Appendix (Table A-5).
Source: Street Intercept Survey, 2015 and 2016.

Nearly half of survey respondents exposed to secondhand smoke at sports fields reported that the drifting smoke was coming from the regulated sports field or spectator area (47%). Fewer respondents exposed to secondhand smoke at playgrounds and on restaurant and bar patios reported that the drifting smoke was coming from the outdoor regulated public space (34% from playground area; 27% from another table on the restaurant or bar patio).

As Assessed by Online Survey

In 2016, online survey respondents in the North West T.C.A.N. most frequently reported being exposed to secondhand smoke at least sometimes at park festivals or fairs (89%) and sports

fields (86%), followed by playgrounds (75%) and restaurant and bar patios (65%). All self-reported estimates of secondhand smoke exposure were higher among the online survey respondents compared to the 2016 street intercept survey respondents.

One in five online survey respondents who were exposed to secondhand smoke while visiting playgrounds and sports fields reported that the drifting smoke came from within the regulated outdoor public space (47% from playground area; 55% from sports field or spectator area). One-quarter of online survey respondents who were exposed to secondhand smoke on a restaurant or bar patio reported that the drifting smoke came from another table on the patio (26%).

Compliance

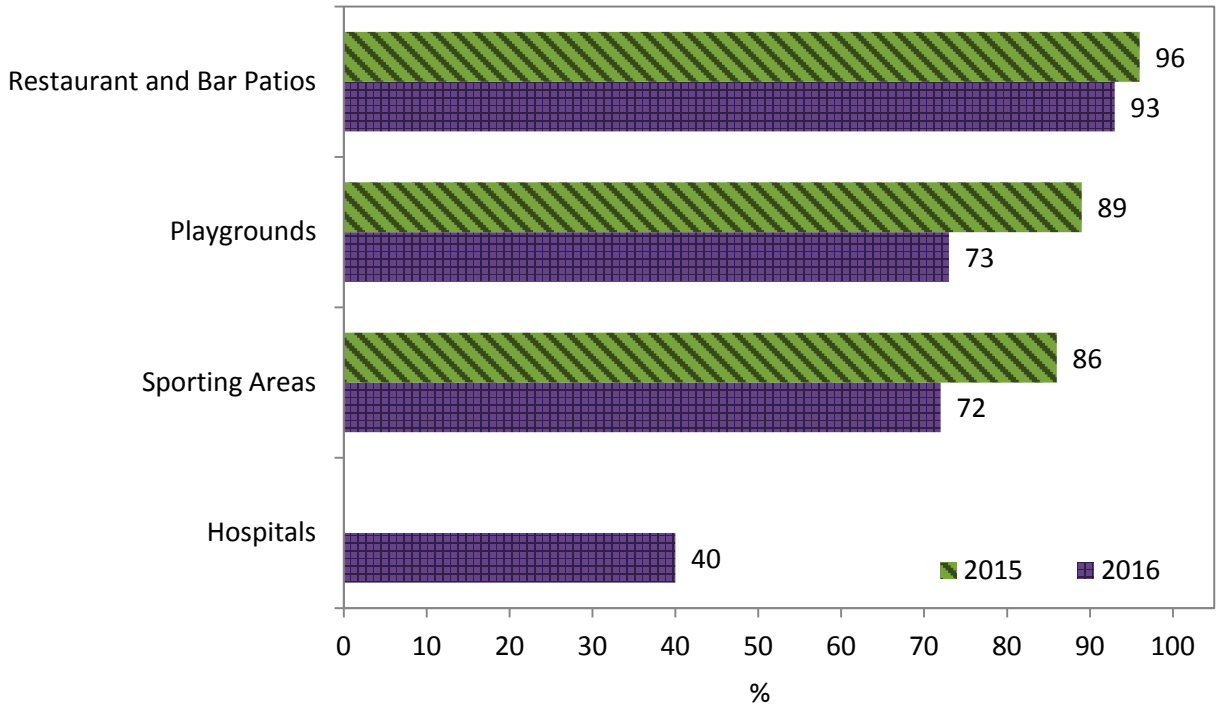
As Assessed by Tobacco Enforcement Officers

Tobacco Enforcement Officers perceived the level of compliance with the outdoor regulations to be strongest at restaurant and bar patios (92%). Other regulated outdoor public spaces were perceived to have a lower level of compliance, including playgrounds (70%), hospital grounds (49%), and sporting areas (45%).

As Documented in the Tobacco Inspection System

Compliance was quite high in the first year of implementation of the outdoor smoking regulations on restaurant and bar patios, playgrounds and sporting areas (96%, 89% and 86% in 2015, respectively; Figure 6). Compliance with smoking in the outdoor spaces fell in 2016 for all three areas (93% for patios, 73% for playgrounds, and 72% for sporting areas). Compliance with the smoking restrictions on hospital grounds was low (40%) in the first year of implementation. Caution should be taken when interpreting the inspection results. Inspections are conducted mainly in response to complaints. Proactive inspections are conducted less frequently (e.g., at the start of a new policy implementation, known hot spots). Therefore, not all outdoor public spaces affected by the smoking regulations were inspected each year (e.g., only 52 of the estimated 155 hospitals across the Province were inspected in 2016).

Figure 6: Proportion of Premises in Compliance With Outdoor Smoking Regulations at the Time of Inspection, by Premise Type, 2015 and 2016



Note: In 2015, 4,473 restaurants and bars with patios, 610 playgrounds and 386 sporting areas were inspected. In 2016, 1,556 restaurants and bars with patios, 497 playgrounds, 274 sporting areas and 52 hospitals were inspected. Full data table for this graph provided in the Appendix (Table A-6).
Source: Tobacco Inspection System, 2015 and 2016.

Action Taken During Inspection

The Ministry of Health and Long-Term Care's Tobacco Compliance Protocol applies a continuum of progressive enforcement actions—starting with education and progressing from warnings to increasingly more serious charges to match the nature and frequency of contraventions under the *Smoke-Free Ontario Act*.[5]

Education was provided during the majority of hospital and restaurant and bar inspections in 2015 and 2016 (Table 2). Close to half of sporting areas and one-third or fewer playground inspections in 2015 and 2016 ended with education being provided.

Over 80% of inspections at restaurant and bars with patios resulted in education materials being provided (e.g., fact sheets, signage) in 2015; whereas half of hospital and restaurant and bar

inspections in 2016 ended with education materials being provided. Fewer than 25% of playground and sporting area inspections in 2015 and 2016 resulted in education materials being provided. The infrequency of education and education materials being provided during playground and sporting area inspections could be due to the nature of the outdoor public space in that municipal staff are not always in attendance during the daytime hours, unlike restaurant managers and hospital administration.

Nearly half of hospitals inspected in 2016 (46%) had one or more warnings issued to visitors or staff for smoking on outdoor grounds (not including designated smoking areas) and a further 25% of hospital inspections resulted in one or more charges being issued. Less than 10% of playground, sporting areas and restaurant and bar inspections resulted in one or more warnings being issued for smoking in both 2015 and 2016. Very few (<1%) playground, sporting area and restaurant and bar inspections noted charges being issued in both 2015 and 2016.

Table 2: Action Taken as a Result of Inspection for Outdoor Smoking Regulations, by Premise Type, 2015 and 2016

Premise Type	Year	# Premises Receiving at Least One Inspection	% Premises Receiving Education	% Premises Receiving Education Materials	% Premises in Which One or More Warnings Were Issued	% Premises in Which One or More Charges Were Issued
Hospitals	2016	52	87%	48%	46%	25%
Playgrounds	2015	610	33%	20%	3%	0.2%
	2016	497	23%	12%	5%	0.2%
Sporting areas	2015	386	42%	24%	5%	0.3%
	2016	274	43%	21%	9%	0.4%
Restaurant and bar patios	2015	4473	92%	83%	2%	0.3%
	2016	1556	74%	52%	3%	0.5%

Source: Tobacco Inspection System, 2015 and 2016.

Impact on Future Use of Outdoor Regulated Area

As Assessed by Street Intercept Surveys

In 2016, the majority of street intercept survey respondents noted that their future use of playgrounds and sports fields, restaurant and bar patios, and their attendance at park festivals and fairs would not be affected by the implementation of the outdoor smoking regulations (68%,

59%, and 68%, respectively). Responses were similar to what was reported in the 2015 street intercept survey (71%, 51%, and 73%, respectively).

As Assessed by Online Survey

One-in-two of the North West T.C.A.N. online survey respondents (51%) reported that their future use of playgrounds and sports fields would not be affected by the outdoor smoking regulations. Similarly, half of online survey respondents (50%) reported that they would be more likely to go to restaurant and bar patios since the outdoor smoking regulations were implemented. Respondents who attended park festivals and fair events reported similar responses for being more likely to attend the events (44%) and not to be affected (45%).

Impact on Quitting Behaviour

As Assessed by Street Intercept Surveys

In 2016, 42% of street intercept survey respondents who were current smokers believed that the outdoor smoking regulations made them more likely to quit or cut down the number of cigarettes smoked. This is unchanged from what was reported in the 2015 street intercept survey (42%).

As Assessed by Online Survey

Fewer smokers (34%) from the North West T.C.A.N. online survey believed that the outdoor smoking regulations made them more likely to quit or cut down the number of cigarettes smoked.

Challenges to Implementing Outdoor Smoking Regulations

Both Tobacco Enforcement Officers and Tobacco Enforcement Managers identified a number of challenges when enforcing the implementation of the outdoor smoking regulations (Table 3). The majority of Tobacco Enforcement Officers reported that lack of public awareness was a challenge (71%), while the majority of Tobacco Enforcement Managers reported that municipality resistance to post no-smoking signage in regulated areas was a challenge (74%). Other commonly identified challenges included: having adequate staffing to proactively enforce the outdoor smoking regulations (48% among Officers and 45% among Managers), a local bylaw

that overlapped and conflicted with the outdoor smoking regulations in the definition of location and products banned (41% among Officers and 36% among Managers), having adequate funding to post signage about the outdoor smoking regulations in the affected regulated areas (33% Officers and 32% Managers), and sign pollution from multiple tiers of government in the affected regulated areas (32% among Officers and 29% among Managers). Less than one-quarter of respondents reported the following challenges: dealing with individuals who were vocal about their lack of support for the outdoor smoking regulations, hospital administration resistance to post signage in regulated areas, the location and structure of the hospital outdoor designated smoking area, and having adequate staffing to address complaints. Notably, 6% of Tobacco Enforcement Officers and 13% of Tobacco Enforcement Mangers did not report any challenges to enforcing the implementation of the outdoor smoking regulations.

Table 3: Challenges to Enforcing the Implementation of the Outdoor Smoking Regulations, 2016

	Tobacco Enforcement Officers (n=79)	Tobacco Enforcement Managers (n=31)
No challenges	6%	13%
Lack of public awareness	71%	39%
Municipality resistance to post signage in regulated areas	61%	74%
Adequate staffing to proactively enforce	48%	45%
Overlapping bylaw and outdoor *Smoke-Free Ontario Act* regulations	41%	36%
Funding to post *Smoke-Free Ontario Act* signage in regulated areas	33%	32%
Sign pollution from multiple tiers of government	32%	29%
Individuals who were vocal about their lack of support for the outdoor *Smoke-Free Ontario Act* regulations	25%	10%
Hospital administration resistance to post signage in regulated areas	20%	26%
Legislative gaps	18%	29%
Adequate staffing to address complaints	18%	23%
Location of the hospital's outdoor designated smoking area	13%	26%
Structure of the hospital's outdoor designated smoking area	9%	13%
Other	15%	23%

Note: Respondents could choose more than one response.
Source: Tobacco Enforcement Officer and Tobacco Enforcement Manager online surveys, 2016.

Legislative gaps were identified as a challenge by 18% of Tobacco Enforcement Officers and 29% of Tobacco Enforcement Managers. Written responses indicated that there were legislative gaps

in each of the outdoor regulated spaces. For hospitals the smoking ban on hospital grounds does not encompass the entire hospital property (e.g., smoking was still permitted outside administration buildings and parking garages). For sporting areas, the definition of a sporting area has been interpreted differently by public health units resulting in an uneven level of protection across the Province (e.g., beaches, entrances to ice rinks). For playgrounds, outdoor smoking regulations cannot be enforced on daycare playgrounds as they are considered private property, leaving children vulnerable to secondhand smoke exposure. Furthermore, the boundary of a playground or sporting area was not properly defined in the outdoor smoking regulations making it difficult to enforce where the 20 metre setback begins and ends. Finally for restaurant and bar patios, not having a setback surrounding patios left many patrons exposed to secondhand smoke as smokers can stand right next to the patio to smoke.

Further explanations about the challenges listed in Table 3 and other challenges that were identified by Tobacco Enforcement Officers, Tobacco Enforcement Managers and Key Informants are outlined below by type of regulated space.

General Challenges

- Limited public education: A lack of provincial promotion and coordinated media strategy across the Province limited the public's awareness of the outdoor smoking regulations and the exact locations where smoking is allowed.
- Lack of complaints: While identified as an issue, enforcement staff noted minimal complaints about smoking at adult sport recreation leagues. A lack of complaints could be due to low public awareness about the outdoor smoking regulations. Or as one Key Informant noted, individuals might not submit complaints about smoking in outdoor contexts because they don't think much can be done to address the issue.

  "…we aren't getting a large number of phone calls here at the region in regards to outdoor smoking. I mean, maybe some people don't feel that it's going to help because by the time they call us… It's already happened. It's done. It's over with." (Tobacco Enforcement Officer)

- Nighttime enforcement: Public health units have limited capacity to do enforcement at

night when non-compliance with the outdoor smoking bans tends to be higher. It was also considered a safety issue because there is no one to communicate with at the office if a confrontation arose.

- Identification of non-compliant individuals: The *Smoke-Free Ontario Act* does not require non-compliant individuals to identify themselves when a Tobacco Enforcement Officer is writing a ticket. Often times, those individuals will curse or be rude to the Tobacco Enforcement Officer and then walk away.

Hospitals

- Enforcement by hospital security staff: Capacity limits how much the public health units can concentrate on enforcing the smoking ban on the outdoor grounds of hospitals. Instead, public health units rely on hospital security staff to conduct the enforcement. However, hospital security staff conduct limited to no daytime and evening enforcement. Furthermore, some security staff were unwilling to educate or warn patients and staff about the outdoor smoking ban. When security staff did try to enforce the smoking ban, they were not always taken seriously by the public because of their inability to enforce with penalty.

  "… I've been at hospitals and seen security tell people to move and [people] just tell them to F off. And then I go with my badge and they're like, 'oh, well, you know, I'm sorry'." (Tobacco Enforcement Officer)

- Signage: The Ministry of Health and Long-Term Care did not provide a standardized sign that public health units could distribute to hospitals for entrances or for the outdoor designated smoking area. Without signage at the perimeter of hospital grounds, the public is unaware of the smoking ban on the outdoor grounds of hospitals and therefore continue to smoke as they walk through the property.
- Hospital administration: Some hospital administration staff have been unwilling to work with public health units towards compliance with the smoking ban on the outdoor grounds of hospitals. Charging hospitals for non-compliance is not a step that many enforcement staff would take as public health units rely on hospitals for important

infectious disease, communicable disease and surveillance data. Therefore, cooperation from hospitals is necessary for a successful implementation of the outdoor smoking regulations on hospital grounds.

- Special populations: Enforcement staff report difficulties enforcing and the willingness to address smoking among mental health patients, seniors and non-ambulatory patients. Furthermore, there is a compassionate challenge to charge a visitor who may be visiting a sick or dying relative.
- Size of hospital grounds: Larger properties are more difficult to obtain compliance because individuals have to travel farther to smoke. This is particularly difficult for individuals with limited mobility (e.g., wheelchair, crutches, etc.).
- Volume of foot traffic: Hospitals see a high volume of foot traffic making it difficult to enforce.
- Complaints: Public health units have not received many formal complaints about smoking on the outdoor grounds of hospitals. However, there has been a lot of complaining in the media from smokers, nonsmokers and organizations about the impact of the smoke-free hospital grounds.
- Shared property: Enforcement of the smoking ban on the outdoor grounds of hospitals becomes challenging when the grounds are shared with a Long-Term Care Facility where smoking is only banned 9 metres from the entranceway.

Playgrounds and Sporting Areas

- Signage: This remains the key challenge to implementing the smoking ban on and around playgrounds and sporting areas. Some municipalities have resisted posting the signage for various reasons such as waiting to post signage until the *Electronic Cigarettes Act's* vaping ban was implemented, concern over damaging the Parks and Recreation inviting image, insufficient capacity to post signage across a large number of venues, sign pollution and the general preference to keep the bylaw signage that was already posted. In addition, some municipalities that did post signage in the affected outdoor areas were posting signage in low numbers, in inappropriate locations or in areas not clearly visible to the public.

- Support: Some enforcement staff reported a lack of internal support from their public health unit to stand up to the municipality to encourage the municipality to post signs.
- Elementary school playgrounds: After school hours, school playgrounds are open to the public to use. Although smoking is banned on school property at all times under the *Smoke-Free Ontario Act*, the smoking ban on playgrounds has caused confusion around if and when the 20 metre setback would apply to the playground area, especially if the playground is close to a public sidewalk which is captured by the 20 metres.

Smoke-Free Restaurant and Bar Patios

- Patio definition: The broad definition of a restaurant and bar patio in the outdoor smoking regulations resulted in various outdoor spaces becoming smoke-free that were not traditionally considered a restaurant or bar patio (e.g., factory cafeterias, golf courses, food truck events, fairs and festivals). This was the case because these spaces served or offered food and/or drink for sale or operated in conjunction with a place that did so. Addressing confusion, navigating which premises the legislation applied to and advising all premises that fall under the patio smoking ban about their obligation to be smoke-free was a challenge. Furthermore, there were inconsistencies in how the outdoor smoking regulations were being interpreted and applied to these unique patio scenarios across the Province.

> "So the patio smoking prohibition caused a lot of confusion and subsequent inconsistency with respect to how they defined a patio so because it's an area used in conjunction with a place that serves food or beverage a lot of things became a patio that had to be smoke-free that we kind of didn't anticipate so we were getting complaints about factory cafeterias. Well they're outside and there's a door that you leave the cafeteria and you get these picnic tables to eat at so because now this cafeteria patio is operated in conjunction with a place that serves food or drink it has to be smoke-free… and the same went for outdoor festivals so we have these giant events that have food trucks and beer tents and because they serve food and beverage the entire event is a patio so it has to be smoke-free and we had tour operators or vendors or tour organizers, event organizers who were running events in other cities in Ontario saying well I'm

allowed to have smoking here and I'm allowed to put a smoking area in this city here but [Name of City] is not allowing smoking anywhere. That was really challenging especially we have one tobacco company in particular who does the traveling smoking lounge to promote their products in all kinds of things…they wanted to come…we said no, you cannot have smoking anywhere. Well we do in this, this, and this town. Well we don't. The law says you can't so we went through a lot of that." (Tobacco Enforcement Officer)

- Confrontational patrons: Compared to other regulated outdoor public spaces, an increased likelihood of dealing with confrontation among restaurant and bar patio patrons was reported. For example, one Key Informant described how the potential for 'mob mentality' among bar customers altered their practice.

  "I'm finding when you get to some of the bars because there's loyalty there if you have a number of people who are smoking they will kind of rally in support of themselves and so you have to kind of have to watch how you speak and as to how enforcement orientated you are. Sometimes you have to kind of downplay it and go back at a later date especially if you're going to charge. Sometimes you have to keep that component kind of quiet like you might let the bartender know that you'll be coming back and that there might be charges…because if the regulars are hearing it then sometimes they become more vocal and when you've got alcohol introduced with that you, yeah you kind of want to watch." (Tobacco Enforcement Officer)

- Patio clusters: Periodic non-compliance tends to arise when streets became lined with outdoor patios and transformed into summer outdoor entertainment areas.

Park Festivals and Fairs

- High volume foot traffic: These events were generally more problematic to enforce due to the high volume of foot traffic (e.g., 100,000 people) that leads to a large number of offenders.
- Enforcement capacity: Festival and fair events in parks are hard to enforce since they operate on weekends when the majority of public health unit enforcement staff do not

work. In addition, the increasing number of outdoor festivals in recent years has put a strain not only on tobacco enforcement staff, but also on food inspection and culture departments.

- Point of contact: Most festival or fairs are organized by different individuals or organizations. Not having a routine point of contact proves challenging when doing education and inspections.
- Awareness: Many of the festival and fair organizers are unaware of the outdoor smoking regulations.

Success in Implementing Outdoor Smoking Regulations

Over half of Tobacco Enforcement Officers and Tobacco Enforcement Managers noted at least one success to enforcing the implementation of the outdoor smoking regulations. These successes included improved compliance in regulated areas over time (66% among Officers and 52% among Managers), increased awareness among owners/operators affected by the outdoor smoking regulations (63% among Officers and 80% among Managers), and increased public awareness about the outdoor smoking regulations (59% among Officers and 72% among Managers; Table 4).

Table 4: Successes to Enforcing the Implementation of the Outdoor Smoking Regulations, 2016

	Tobacco Enforcement Officers (n=71)	Tobacco Enforcement Managers (n=25)
Improved compliance in regulated areas over time	66%	52%
Increased awareness among owner/operators affected by the outdoor *Smoke-Free Ontario Act* regulations	63%	80%
Increased public awareness about the outdoor *Smoke-Free Ontario Act* regulations	59%	72%
Other	11%	16%

Note: Respondents could choose more than one response.
Source: Tobacco Enforcement Officer and Tobacco Enforcement Manager online surveys, 2016.

A number of 'other' factors that led to a successful implementation were noted by Tobacco Enforcement Officers, Tobacco Enforcement Managers and Key Informants.

General Factors for Success

- Timely response: Addressing complaints in a timely manner and resolving concerns at the specific locations contributed to a successful implementation.
- Public support: The positive support from the public for smoke-free public spaces lead to a successful implementation.
- Municipal cooperation: Some municipalities have been very cooperative in the implementation of the outdoor smoking regulations.
- Relationship building: Implementing the outdoor smoking regulations has strengthened relationships with municipalities and restaurant and bar owners.

Hospitals

- Organizational buy-in: Relationship building with hospital administration was important in order to gain organizational buy-in. To achieve this, one public health unit dedicated staff time to visit each hospital twice to go over the legislative requirements and compliance strategies.

Playground and Sporting Areas

- Pre-existing bylaw: Having a playground and sporting area bylaw already in place facilitated the implementation of the provincial outdoor smoking regulations because relationships with the municipality were already established, as were protocols around signage. Public awareness and compliance was also generally higher for the Provincial outdoor smoking regulations in these municipalities.
- Signage: One public health unit leveraged the Provincial outdoor smoking regulations to highlight the legal obligation the municipality had to post signage in the outdoor regulated public spaces, which was absent in their bylaw.

> "…so the part that was nice about it was that it gave us a little bit more in terms of making them install signage because they were a little reluctant when it was their own bylaw, and by the way it was written, there was no obligation to install signage. But when it was named with [*Smoke-free Ontario Act*], I would say a

benefit to that was that we could then say, this is a public place, you have an obligation to ensure that people know that smoking is prohibited, and the best way to do that is to post signs." (Tobacco Enforcement Manager)

Restaurant and Bar Patios

- Interdepartmental collaboration: Collaborating with local Public Health Inspectors to disseminate educational materials and/or signage to restaurants and bar owners facilitated implementation as it alleviated the workload placed on Tobacco Enforcement Officers.

Park Festivals and Fairs

- Local signage: One public health unit created smoke-free signs for festival and fair events. These signs were very effective at raising awareness and were frequently requested by outdoor event organizers.
- Special event documentation: Two public health units updated special events documents to educate event organizers about the outdoor smoking regulations. One included the information in the special event application process, while the other included the information in the local Special Events Information Package. This resulted in numerous inquiries asking for signage and clarification about the *Smoke-Free Ontario Act*.
- Collaboration: Municipalities have invited public health units to be a part of the planning stages and post-event debriefing for special events so that the outdoor smoking regulations are incorporated into the event.
- Proactive enforcement: One public health unit credited taking a firm stance and applying patio legislation to outdoor park festivals and fairs. A proactive enforcement approach to outdoor events was also noted and recognized for a decrease in complaints received about smoking at outdoor festivals and fairs.

"We send a Tobacco Enforcement Officer who will actually inspect prior to the event happening to see if the organizers have posted adequate signage, that they've ensured that there aren't ashtrays in places where there shouldn't be, that they've made all of their staff, security or volunteers aware of the smoking

> restrictions and that they're going to help, so we do all that in advance or at the start of the event and that has had a positive impact. " (Tobacco Enforcement Manager)

Unintended Consequences

As part of the Tobacco Enforcement Officer and Tobacco Enforcement Manager online surveys, respondents were asked to write in unintended consequences (both positive and negative) of implementing the outdoor smoking regulations in each of the affected public spaces.

General Consequences

- Delay in implementing vaping ban: The fragmented introduction of the outdoor smoking regulations and the *Electronic Cigarettes Act* vaping ban resulted in a great deal of misinformation and confusion among the public, owners, operators and administrators.
- Enforcement expectations: The public expected active enforcement of the outdoor smoking regulations, whereas enforcement is generally conducted only in response to complaints.

Hospital Grounds

- 100% smoke-free: A couple of hospitals decided to go 100% smoke-free almost immediately, while two additional hospitals were looking into going smoke-free ahead of 2018 deadline.
- Location of smokers: The smoking ban on hospital grounds has pushed smokers onto the sidewalks and adjacent private properties surrounding the hospital. This has led to numerous complaints about cigarette butt litter and secondhand smoke exposure in these areas.
- Single entry point: One hospital in particular only has one access point to the property. When the designated smoking area is removed in 2018, all smokers will be forced to smoke their cigarettes out at the off campus entryway. This will result in everyone being exposed to secondhand smoke when entering the hospital grounds.

Playgrounds and Sporting Areas

- Signage: In the first year of implementation (2015), public health units were instructed to only respond to complaints and not check for proper posting of the no-smoking signage in playgrounds. This contributed to municipalities not posting signage until they were asked in the second year of implementation (2016). Lack of signage in the first year may have contributed to non-compliance among playground visitors.
- Pre-existing bylaws: In municipalities with a pre-existing bylaw, there was interplay between the bylaw and the provincial outdoor smoking regulations resulting in confusion about what areas were smoke-free and what distance smokers needed to be from the regulated area. Some municipalities amended an existing bylaw to make the entire parks or municipal beaches smoke-free to eliminate the grey areas and confusion about where individuals could smoke.
- Bylaw signage: One municipality's pre-existing bylaw restricted smoking within 9 metres of playgrounds and sporting areas. The bylaw signage was not replaced when the provincial outdoor smoking regulations were implemented making it difficult for a Tobacco Enforcement Officer to charge someone who is smoking within 9-20 metres of a playground or sporting area.

Restaurant and Bar Patios

- Location of smokers: Without any defined setback from the patio area, smokers are lighting up immediately beside the patio causing smoke to drift onto the smoke-free patio area. Smokers are also congregating on the sidewalk and in restaurant and bar entrances forcing nonsmokers to walk through clouds of smoke when entering or exiting the premises and deterring new customers from entering.
- Unpaid bills: Customers have left the patio area to smoke a cigarette and not returned to pay their bill.
- Conflict with other legislation: In some instances, the smoke-free patio regulation conflicted with the *Liquor License Act* in terms of where smokers were allowed to smoke outdoors.

> "...if a bar just tells people to go outside and smoke, but then those people are all over the road getting hit by cars, the alcohol inspector will tell the bar 'you have to control your patrons or we'll charge you under the *Liquor License Act*.' ... So a bar will put up a fence on a sidewalk and say 'you have the smoke behind this fence.' Well, now it's become a patio [an area operated in conjunction with food or beverages]... which [smoking] isn't allowed. " (Tobacco Enforcement Officer)

- Seasonality: Restaurant and bar patrons use patio areas to smoke during winter months when the patios are not in use. However, public health units have been instructed that patios cannot be seasonal and therefore smoking is banned year round.
- Patio definition: The broad definition of restaurant and bar patios in the outdoor smoking regulations resulted in various outdoor spaces becoming smoke-free that were not traditionally considered a restaurant or bar patio (e.g., factory cafeterias, golf courses, food truck events, fairs and festivals).

Park Festivals and Fairs

- Broad adoption: Several festival and fairs organizers have decided to make their event 100% smoke-free since part of their site is like a playground or patio.

Enforcement Staff Suggestions for Improvement

Key Informant interview participants, Tobacco Enforcement Officers, and Tobacco Enforcement Managers all provided suggestions for improving the implementation of the outdoor smoking regulations and any future amendments to the *Smoke-Free Ontario Act*.

1. Public education: A province-wide public education campaign should be conducted to provide consistent messages about the outdoor areas where smoking is now banned (e.g., 20 metre setback) and the potential fines for non-compliance. Such a campaign would provide a standard level of awareness across the Province, rather than leaving it to the individual public health unit to conduct the public education. It was also recommended to continuously run the awareness campaign before, during and after implementation. Disseminating education about the outdoor smoking regulations through park use/sporting event permits and provincial sport organizations was also

suggested as a means to educate the public.

> " ...so if [the Ministry of Health and Long-Term Care] got something in with the Soccer Association at the Ontario level, and then disseminating things down. I mean, it's great to do it region by region as well but I think when you get the heads up from your main organization, things come down. Often there's major newsletters that they have and getting information into those so that it flows through the organization. I think those would work more in our favour. So it's using the resources that you have wisely and when you can, piggyback on other things." (Tobacco Enforcement Officer)

2. Interpretation: Public health units should come to a consensus on the interpretation of the outdoor smoking regulations (or any new amendments). This would provide a consistent level of protection from secondhand smoke exposure and eliminate the current inconsistencies across public health units (e.g., smoke-free park festivals and fairs).
3. Hospital signage: Provincial no smoking signage for hospitals should be provided to inform public about the smoking ban on outdoor grounds of hospitals and the temporary provision of an outdoor designated smoking area. It was also suggested that the signs be posted at every entry point along the perimeter of the outdoor grounds.
4. Hospital accountability: Hospitals should be held accountable by the Ministry of Health and Long-Term Care to post signage and enforce the smoking ban on outdoor grounds. This could be achieved through measurable accountability standards where the hospitals are required to pass *Smoke-Free Ontario Act* inspections.
5. Hospital enforcement: Encourage hospital security staff to enforce the smoking ban on hospital property with penalty as it is difficult for Tobacco Enforcement Officers to respond to complaints in a timely manner.
6. Sporting area and playground signage: The Ministry of Health and Long-Term Care should communicate directly with the Ministry of Municipal Affairs to be clear on the municipalities' responsibilities. This is especially true regarding the posting of signage and the municipalities' role in ensuring anyone using their outdoor spaces are aware of the legislative requirements. Generally, the municipalities have not responded well to public health units' or Tobacco Enforcement Officers' engagement in getting the signage posted.

7. Expand coverage of outdoor smoking ban:
    a. Ban smoking in public building entranceways. This is a common complaint from the public. Furthermore, many restaurant and bar patio patrons smoke in the entranceway to avoid smoking on the patio.
    b. Ban smoking across all parks, sporting areas and playgrounds. Most parks have overlapping 20 metre setback rings where smoking is prohibited (e.g., playground and sporting areas, multiple sporting areas). This leaves small spaces where smoking would be permitted, which confuses the public about where they can smoke and makes for a challenging enforcement practice.
    c. Add a setback around restaurant and bar patios where people cannot smoke.
8. Identification of offenders: Find a solution to the problem of offenders not revealing their identity or identification when found in non-compliance in regulated outdoor public spaces.
9. Advanced planning for implementation: Consistent messaging for proprietors for any new legislative changes, provided ideally before the implementation date (e.g., fact sheets). Months later is too late and results in inconsistent interpretation and responses across the Province.
10. Increase enforcement resources: Realistic allocation of resources, beyond one-time funding, to support tobacco enforcement units was suggested in light of increased workloads due to current and future legislative changes.

> "I would say that enforcement capacity at the Health Unit is a problem and to get the best bang for the buck as it relates to getting the most out of these legislative changes, increased resources are required… looking ahead to the number of workplaces and public places that we have in our jurisdiction for the *Electronic Cigarettes Act* that is, like that's a lot of work. If I think back to the resources that we put in place when we were implementing the by-law or implemented the *Smoke-Free Ontario Act*… I don't think that we require that kind of resourcing but we require a lot more than what we've got now." (Tobacco Enforcement Manager)

Discussion

Overall, while the *Smoke-Free Ontario Act* outdoor smoking regulations have increased protection from secondhand smoke exposure, a high proportion of smokers continue to smoke and a high proportion of Ontarians continue to be exposed in outdoor places where smoking should be prohibited. The first year of implementation (2015) showed some successes. However not all successes were sustained or improved upon in the second year of implementation (2016).

Public awareness, as measured by street intercept surveys, increased in the second year of implementation. However, the levels of awareness about the outdoor smoking regulations were modest (63%-74%). Lower levels of public awareness may be explained by inadequate public education efforts and a lack of signage posted in the affected outdoor public spaces. It appears that low cost and low reach efforts by public health units were inadequate. Many of the enforcement staff suggested a broad Provincial-level media campaign to raise awareness about the outdoor smoking regulations. Increased awareness would contribute to improved levels of compliance and an increase in the public reporting non-compliance hot spots to public health units.

Despite a decrease within the first year of implementation, self-reported smoking behaviour continued to be high at park festivals and fairs, on restaurant and bar patios and at sporting areas in the second year of implementation. The effect of the sustained high levels of self-reported smoking behaviour may have contributed to an increase in the levels of self-reported secondhand smoke exposure in the second year of implementation. Although the street intercept survey estimates are not generalizable to the whole Province due to the sampling methods, the estimates demonstrate that more work needs to be done to encourage compliance in the regulated outdoor public spaces.

Compliance with the smoking ban on restaurant and bar patios, playgrounds and sporting areas was high among inspected premises in the first year of implementation. Decreases in compliance were noted for playgrounds and sporting areas in the second year of implementation. On hospital grounds, compliance with the smoking ban was low in the first year of implementation. Premise education is key to gaining compliance among affected premises. Public health units reported, on average, about 80% of affected premises were provided onsite education visits

during the first year of implementation. However, enforcement is mainly conducted in response to complaints. This is due to the limited capacity to enforce the large number of outdoor public spaces affected by the smoking regulations in addition to the other *Smoke-Free Ontario Act* and *Electronic Cigarettes Act* enforcement priorities (e.g., youth access to tobacco and e-cigarettes). In the absence of proactive enforcement, the outdoor smoking regulations become largely self-enforcing. High levels of public awareness are necessary for self-enforcement of the outdoor smoking regulations to be effective.

Results suggest that great caution should be taken in relying on the inspection-level compliance data to evaluate the success of the outdoor smoking regulations. These data reflect inspections of only a small proportion of the affected outdoor public spaces and generally during hours less prone to non-compliance. While not representative, the street intercept results strongly suggest that despite the outdoor smoking regulations there is substantial exposure to secondhand smoke.

A positive impact of the implementation of the outdoor smoking regulations is that 42% of surveyed smokers reported that the regulations would make them quit or cut down. Even if a fraction of those survey respondents attempted to or successfully quit, it would contribute to a reduced burden of tobacco-related disease and public exposure to secondhand smoke.

A number of challenges identified by enforcement staff could be addressed through actions at the provincial level. Consideration should be given to suggestions from enforcement staff, such as conducting a Provincial-level media campaign to raise awareness and compliance among the public. Also, coming to a province-wide consensus on the interpretation of the patio and sporting area definitions would provide a consistent level of protection from secondhand smoke. Engagement between the Ministry of Health and Long-Term Care and municipalities would help reinforce the importance of posting no-smoking signage. Furthermore, an accountability requirement could be added for hospitals so that they must ensure compliance with the ban on smoking on hospital grounds. Finally, expand the smoking regulations to include building entrances, a no-smoking area surrounding restaurant and bar patios, and the entirety of parks, sporting areas and playgrounds.

Appendix

Table A-1: Proportion of Public Health Units That Conducted General Education Activities Related to the *Smoke-Free Ontario Act* Amendments, by Media Type, N=34, 2016

Media Type	Not At All % (n)	Very Little % (n)	Somewhat – To a Great Extent % (n)
Website	12% (4)	12% (4)	77% (26)
Social media	29% (10)	15% (5)	56% (19)
Newspaper	41% (14)	26% (9)	32% (11)
Radio	50% (17)	21% (7)	29% (10)
Billboard	88% (30)	6% (2)	6% (2)
Television	91% (31)	6% (2)	3% (1)

Note: Data table is for Figure 1. Estimates presented Figure 1 represent the combined responses 'somewhat' and 'to a great extent.'
Source: Tobacco Enforcement Manager Survey, 2016.

Table A-2: Public Awareness of Outdoor Smoking Regulations, 2015 and 2016

Premise Type	2015			2016		
	Yes % (n)	No % (n)	Don't Know % (n)	Yes % (n)	No % (n)	Don't Know % (n)
Restaurant and bar patios	67% (674)	32% (320)	1% (10)	74%[a] (839)	26% (292)	0.5% (6)
Playgrounds and sporting areas	54% (542)	45% (457)	0.6% (6)	63%[b] (712)	37% (420)	0.4% (5)

[a] significant difference between 2015 and 2016; $p < 0.01$
[b] significant difference between 2015 and 2016; $p < 0.001$
Note: Data table is for Figure 2. Estimates presented Figure 2 represent the 'Yes' response.
Source: Street Intercept Surveys, 2015 and 2016.

Table A-3: Average Proportion of Premises That Were Provided Onsite Education Visits by Public Health Units, by Premise Type, 2015 and 2016

Premise Type	2015	2016
Hospitals	71%	86%
Restaurants and bars	79%	67%
Departments or organizations responsible for children's playgrounds and/or sporting areas	73%	61%

Note: Data table is for Figure 3.
Source: Tobacco Enforcement Manager Survey, 2016.

Table A-4: Self-Reported Smoking Behaviour at Public Spaces Affected by the Outdoor Smoking Regulations,[a] 2014-2016

Premise Type	2014		2015		2016	
	Sometimes – Always % (n)	Never % (n)	Sometimes – Always % (n)	Never % (n)	Sometimes – Always % (n)	Never % (n)
Park festival or fair	74% (314)	26% (110)	70%[b] (295)	30% (125)	71% (315)	29% (129)
Restaurant or bar patio	83% (458)	17% (95)	47%[c] (260)	53% (297)	48% (209)	52% (226)
Sporting area	55% (213)	45% (174)	46%[c] (181)	54% (210)	44% (179)	56% (232)
Playground	31% (114)	69% (253)	24%[c] (89)	76% (282)	28% (106)	72% (276)

[a] Among survey respondents who reported visiting the affected outdoor public spaces.
[b] significant difference between 2014 and 2015; $p < 0.01$
[c] significant difference between 2014 and 2015; $p < 0.0001$
Note: Data Table is for Figure 4. 2014 estimates were derived from a question on the 2015 Survey "At this time last year, how often did you smoke a cigarette when visiting a [affected outdoor public space]?"; 2015 and 2016 estimates were derived from direct questions on the 2015 and 2016 surveys "How often do you smoke a cigarette when visiting a [affected outdoor public space]?"
Source: Street Intercept Surveys, 2015 and 2016.

Table A-5: Self-Reported Exposure to Secondhand Smoke at Public Spaces Affected by the Outdoor Smoking Regulations,[a] 2014-2016

Premise Type	2014		2015		2016	
	Sometimes – Always % (n)	Never % (n)	Sometimes – Always % (n)	Never % (n)	Sometimes – Always % (n)	Never % (n)
Park festival or fair	84% (777)	16% (143)	80%[b] (735)	20% (183)	80% (839)	20% (213)
Restaurant or bar patio	84% (979)	16% (182)	56%[b] (648)	44% (512)	60% (614)	40%[e] (406)
Sporting area	66% (557)	34% (284)	58%[b] (503)	42% (359)	71% (691)	29%[c] (277)
Playground	45% (358)	55% (438)	37%[b] (295)	63% (511)	44% (405)	56%[d] (508)

[a] Among survey respondents who reported visiting the affected outdoor public spaces.
[b] Significant difference between 2014 and 2015; $p < 0.0001$
[c] Significant difference between 2015 and 2016; $p < 0.0001$
[d] Significant difference between 2015 and 2016; $p < 0.01$
[e] Significant difference between 2015 and 2016; $p < 0.05$
Note: Data Table is for Figure 5. 2014 estimates were derived from a question on the 2015 Survey "At this time last year, how often were you exposed to other people's tobacco smoke when visiting a [affected outdoor public space]?"; 2015 and 2016 estimates were derived from direct questions on the 2015 and 2016 surveys "How often are youth exposed to other people's tobacco smoke when visiting a [affected outdoor public space]?"
Source: Street Intercept Surveys, 2015 and 2016.

Table A-6: Proportion of Premises in Compliance with Outdoor Smoking Regulations at the Time of Inspection, by Premise Type, 2015 and 2016

Premise Type	2015	2016
Restaurants and bars	96%	93%
Playgrounds	89%	73%
Sporting areas	86%	72%
Hospitals		40%

Note: Data Table for Figure 6. In 2015, 4,473 restaurants and bars with patios, 610 playgrounds and 386 sporting areas were inspected. In 2016, 1,556 restaurants and bars with patios, 497 playgrounds, 274 sporting areas and 52 hospitals were inspected.
Source: Tobacco Inspection System, 2015 and 2016.

References

[1] Ontario Tobacco Research Unit. *Smoke-Free Ontario Strategy Monitoring Report*. Toronto: Ontario Tobacco Research Unit, Special Report, March 2017.

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[4] Ontario Ministry of Health and Long-Term Care. *Ontario Public Health Standards 2008*. Toronto: Queen's Printer for Ontario; 2008 [revised March 2017]. Accessed May 17, 2017.

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