



FINAL REPORT

1-YEAR EVALUATION of the Tobacco and Smoke-Free Campus Policy: *A Student-Led Multi-Component Impact Evaluation*

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Table of Contents

Abbreviations	3
A. Executive Summary	3
Table 1: Key Impact Findings	4
B. The Policy	4
C. Multi-Method Evaluation Strategy	5
D. Results	6
Survey Findings	6
Litter Audit Findings	10
Findings from Reduction and Cessation Services Tracking	11
Compliance Findings	12
E: Discussion and Recommendations	13
Limitations	13
Recommendations	14
1. Promote	14
2. Enforce	15
3. Monitor	16
4. Population-Based Interventions	16
5. Knowledge Transfer	17
Conclusions	17
F. References	18
G. Appendix	20
Litter Audit Map	20

Abbreviations

DSA – Designated Smoking Area

TSF – Tobacco and Smoke-Free

NRT – Nicotine Replacement Therapy

LTPB – Leave The Pack Behind

MPH – Master of Public Health

SHS – Second-hand Smoke

A: Executive Summary

McMaster University is a Canadian post-secondary institution focused on promoting health on campus in accordance with the signing of the 2015 Okanagan Charter. January 1st, 2018, McMaster University became the first post-secondary institution in Ontario to implement a 100% Tobacco and Smoke-Free (TSF) policy. This evaluation report aims to report on the one-year impact of the TSF policy, guide further implementation, and inform resource development.

Project Goals

1. Describe the impact of the McMaster TSF Campus policy within the first year of implementation; and
2. Create recommendations based on existing literature and contextual evaluation findings to contribute to ongoing policy review, enhancements and improvements.

Methods

The primary method of data collection were two cross-sectional community surveys conducted mostly online but also in-person with over 2850 respondents in total. The multi-method evaluation also included three tobacco related litter audits, tracking utilization of cessation services, and analysis of policy compliance data from security services.

Results

See Table 1 for key impact findings from the evaluation. Almost all survey respondents were aware of the policy (~93%) prior to coming across the survey. Respondents self-reported experiencing significantly less second-hand smoke on campus after the policy was implemented. Out of those who smoke, more than half (60%) reported not using tobacco or smoking products on university-owned property at all. There was an overall decrease in the amount of tobacco related litter on campus from baseline to 1-year post-policy implementation and an increase in the delivery and use of cessation services. Compliance data showed an increasing trend of security/enforcement related responses over the first four months, followed by a decreasing trend in responses for the remainder of the year, which is consistent with the overall gradual introduction, education and enforcement of the policy.

Conclusions

Overall, the evaluation demonstrates a positive impact on the policy purpose outlined by the working group, most notably diminishing exposure to smoke and tobacco on campus and promoting health and safety. It also reveals some of the complexities of implementing this type of health policy and identifies additional recommendations from best practice to further the success of the McMaster TSF Campus Working Group and the corresponding policy implementation.

Table 1: Key Impact Findings

Indicator	Pre-Implementation Nov 2017	3 Months Post- Implementation Mar 2018	1-year Post- Implementation Nov 2018
# of People observed smoking in hot spots	43	0	1
# of Cigarette butts collected in hot spots	3426	2962	1025
% of Survey respondents aware of policy	NA	93%	93%
% reporting frequent exposure to SHS*	63.1%	32.2%	30.9%
% reporting infrequent exposure to SHS*	36.9%	67.8%	69.1%
Total # of utilizations of reduction or cessation support services	19	25	16
% of smokers who did not use tobacco while on university-owned property	NA	52%	60%
% of Respondents who reported increased desire to quit, Reduced use and/or successful cessation of smoking or tobacco product use	NA	23%	26%
% of Respondents interested in quitting in the next 6-12 months	NA	37%	52%
% of Respondents aware of free support	NA	76%	59%
% of Smokers interested in quitting 'cold turkey' or on their own	NA	22%	35%
% of Smokers interested in using NRT	NA	18%	22%

*statistically significant ($p < 0.05$)

B. The Policy

McMaster University's Tobacco and Smoke-Free (TSF) Campus Policy¹ came into effect on January 1, 2018 and applies to all McMaster University-owned properties and campuses. McMaster's main Westdale campus is self-contained and has boundaries with residential communities on the west, south, and east end, with the north boundary backing onto a nature conservation area.

The specific goals of McMaster University's TSF policy include:

- (a) confirming McMaster's commitment to a healthy and safe environment;
- (b) diminishing exposure to second-hand smoke (SHS);

- (c) supporting reduction and cessation;
- (d) acknowledging ceremonial use of tobacco;
- (e) increasing awareness about the impact of smoking on health; and
- (f) establishing responsibilities of roles regarding policy implementation.¹

There are four university departments responsible for supporting the policy: The Student Wellness Centre (for cessation support for students), Human Resources Services (for cessation support for faculty and staff), Facility Services (for signage, cleaning, and/or physical property matters), and Security Services (for enforcement).¹

C. Multi-Method Evaluation Strategy

The specific evaluation plan was developed using a template from the Centre for Disease Control and Prevention.²

Survey

The original cross-sectional community survey conducted 3-month post-policy launch was developed by the previous year's student/staff evaluation team, in collaboration with McMaster's Equity and Inclusion office. The survey was developed using a template from best practice for how to evaluate TSF policies³, and it was subsequently modified and adapted for the McMaster context. In addition to the quantitative questions, a qualitative question was also added to help further understand people's experience of the TSF policy. The first survey was conducted in March 2018 and the second one 8 months later in November 2018. Each survey was open for approximately 4 weeks. Respondents accessed the survey via direct McMaster email link, social media accounts (Facebook, Instagram), Daily News website, or in-person invitations at the student-led 1 Day Stand Events. Participants were given the chance to enter a draw to win one of 50 Starbucks gift-cards valued at \$10 each. The data was collected and hosted by Campus Labs[®]. Analysis was completed using Microsoft Excel, SPSS, and QDA Miner Lite.

Litter Audit

The audit helped determine changes in the amount of tobacco related litter as a measure of compliance. The first litter audit was done in December 2017 prior to policy implementation and the second was completed in March 2018, three months post-implementation. The final litter audit was conducted one-year post-implementation in December 2018. During these audits, volunteers collected and counted cigarette butts in various identified hotspots on campus for approximately one hour. Volunteers also noted the number of individuals observed smoking or vaping in these locations. The six hotspots were identified by Facility Services as locations on campus where more litter clean up/maintenance was required. For one week prior to each audit, Facility Services staff suspended cleanup of cigarette butts in the hotspot areas, so that the litter collected would be representative of one week of discarded cigarettes.

Reduction and Cessation Services Tracking

McMaster University community members have access to a variety of tobacco cessation and reduction resources. Data for students was provided by Leave The Pack Behind (LTPB), which tracks uptake of health professional counselling provided by the Student Wellness Centre and access to an eight-week supply of nicotine replacement therapy (NRT). In addition, Human Resources Services coordinates smoking cessation workshops offered to employees and members of the McMaster University community. The number of participants attending workshops since the policy was announced in September 2017 has been collected as part of the evaluation.

Compliance

Security Services shared their tracking data to assess compliance. Number of interactions between security officers and those using tobacco or smoking on campus was recorded. This includes the number of smoking incidents as well as the exact number of people involved. The tracking system was developed by Hamilton Public Health Services and was introduced during officer training in advance of policy implementation.

D. Results

Survey Findings

A total of 1602 responses were collected for the 3-month post-policy community survey and 1250 responses for the 1-year post-policy survey. More than half (52-62%) of the respondents for both surveys were staff or faculty, probably since this was the only university affiliation that we were able to reach by direct email. Students (undergraduate and graduate) comprised 33-43% of the respondents and about 3-5% were campus visitors, neighbours or volunteers. 12% of the respondents from both surveys self-identified as tobacco users or smokers who had used commercial tobacco or an alternative tobacco/nicotine product in the past 30 days.

Most respondents were aware of the TSF policy prior to coming across the survey (93%), at both 3 months and 1-year post-policy. Most respondents (84%) were also aware that the policy also includes prohibition of smoking and vaping of cannabis. The top three information sources were the McMaster Daily News article, email and word of mouth. Social media and outdoor signage were also a common source where community members gained information about the policy. Approximately half of respondents (~52%) agreed that the policy made McMaster a healthier place to work or learn and that it contributed to an improved image for the University. Many respondents (47%) were also very pleased with the improvement in the physical environment, such as the reduction in cigarette litter and SHS, and 62% of respondents felt that the TSF policy sets a good example for others.

Figure 1: How often survey respondents were exposed to SHS while on campus pre- and post-policy implementation

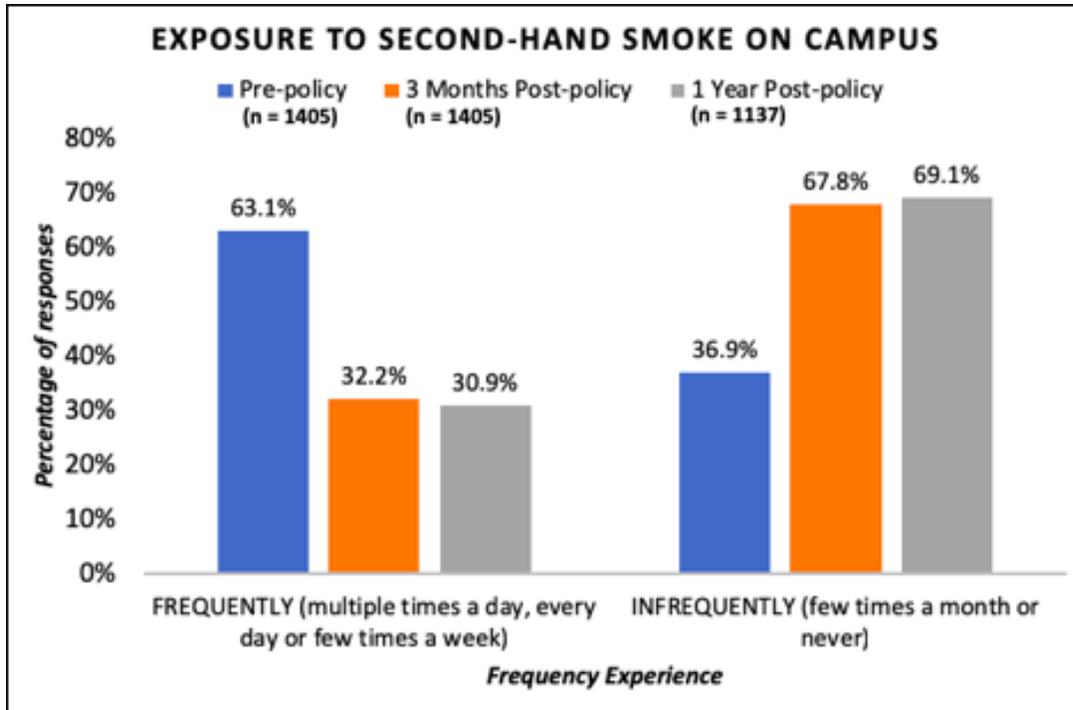


Figure 1 demonstrates that there was a ~50% decrease in the frequent experiences of SHS from before and after policy implementation, while the infrequent experiences of SHS showed a ~50% increase. Frequent experiences included seeing SHS on campus multiple times a day, every day, or a few times a week. Infrequent experience included never seeing SHS on campus, or only seeing it a few times a month. Although no statistical differences were shown in the 3-month versus 1-year responses for SHS exposure, there was a statistically significant difference between the responses pre-policy versus 1-year post-policy, as seen through a two-sample t-test ($Z = 16.15, p = 0.0001$).

Figure 2: How often self-identified tobacco users leave University-owned property to use tobacco products since January 1, 2018

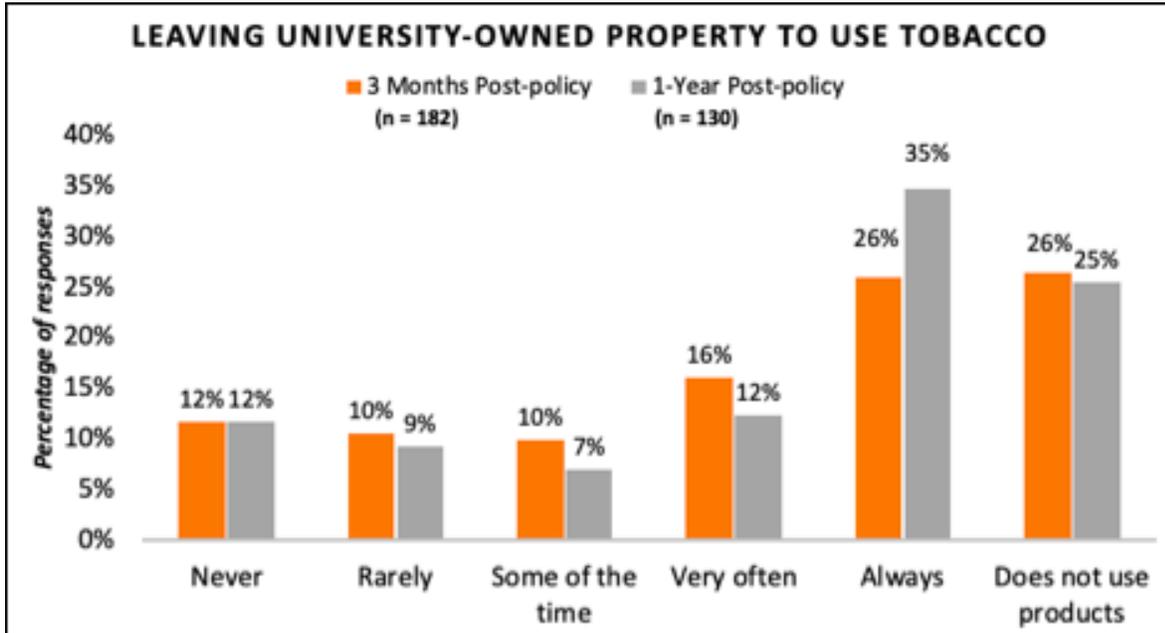


Figure 2 shows that compared to 3-months post-policy, 1 year after policy implementation, the number of people who smoke who either always leave university property to use tobacco products, or who don't use these products at all while on university grounds, increased from 52% to 60%; showing positive trends for voluntary policy compliance. However, this increase was not significant according to a two-sample t-test ($Z = -1.40$, $p = 0.16$).

Figure 3: What effect did the TSF policy have on your tobacco product use or smoking? (respondents could choose multiple options)

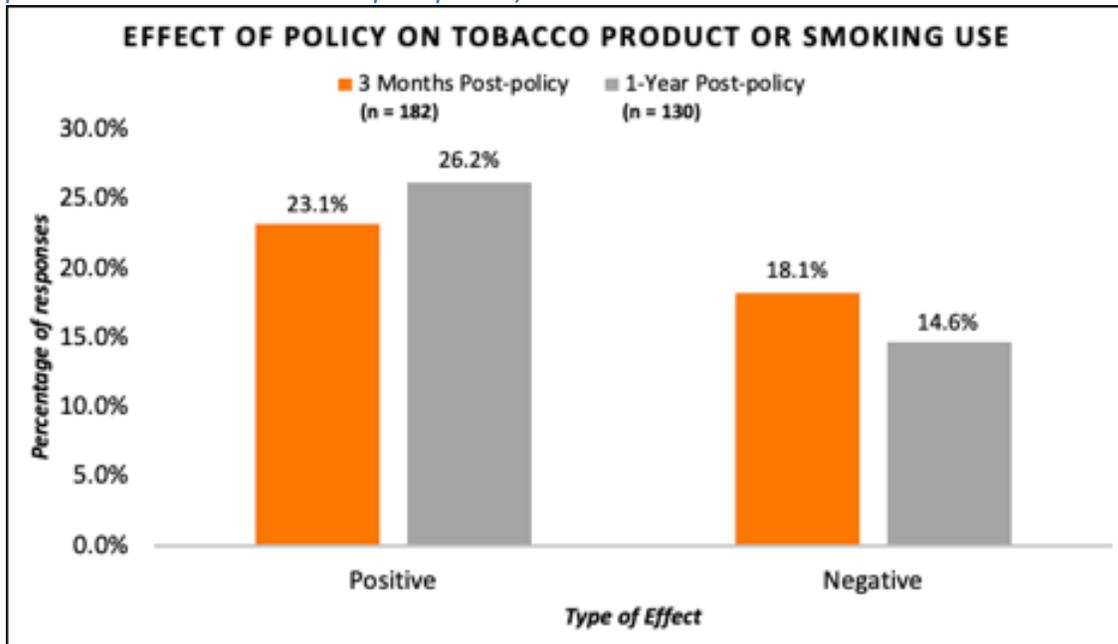


Figure 3 shows the effect the policy has had on smoking or tobacco product use, both 3 months and 1 year after implementation. Human behaviour is very complex especially when it comes to addictive substances, therefore any reduction or cessation that comes because of the policy is important to note. Considering responses from both surveys, positive responses to the policy included reducing the amount of smoking (47 people), increasing the desire to quit (22 people), and helping with successful quitting (7 people). Positive responses increased from 23.1% to 26.2% from 3 months to 1-year post-policy. However, this increase was not significant according to a two-sample t-test ($Z = -0.63$, $p = 0.53$). Subsequently, negative responses to the policy, such as increasing the amount of smoking or decreasing the desire to quit, decreased from 18.1% to 14.7% 1-year post-policy. The remaining responses to the survey (~75-82%) were that the policy had no effect (positive or negative) on quit smoking.

Additional Survey Results: About 52% of those respondents that self-identified as smokers or tobacco product users on the 1-year post policy implementation survey indicated that they were interested in quitting within the next 6-12 months and 59% were aware of where they could go to receive free resources and support. Although most respondents (35%) indicated that they would rather stop on their own using the “cold turkey” method, several showed interests in using NRT (22%), prescription medications (16%), self-help resources (15%), and counselling (12%). Out of those individuals who preferred counselling, in-person counselling (group and one-on-one) was more preferred than counselling over the phone. The #1 self-help resource respondents were most interested in trying was a smartphone app.

The survey respondents were also asked if they had anything they wanted to share with the evaluation team or any additional experiences or questions about the TSF policy. 417 people left comments which were extracted from that data and assigned 712 codes to help describe the experience of the policy. Codes for comments were divided into three major categories: Positive, Negative and Observations/Suggestions.

Table 2: Qualitative Data Summary from Survey

Cluster Category	Main Sub-cluster Code(s)	Description of comments	Count (n)	% Codes
Positive	<ul style="list-style-type: none"> Policy is effective Encouragement/support 	Any kind of <u>positive</u> statement supporting the policy including its success, benefits to health, environment or culture.	94	13%
Negative	<ul style="list-style-type: none"> Policy has no effect Smokers' rights/quality of life Other products Previously unseen 	Any kind of <u>negative</u> statement against having the policy in place, including its impact toward tobacco users or smokers' rights (staff, students), its impact towards the use of other products (e.g. cannabis), and an unchanged or increased visibility of smokers since its implementation.	139	20%

<p>Observations/ Suggestions</p>	<ul style="list-style-type: none"> ● Enforcement ● SHS ● DSA ● Signage ● Reporting ● Questions ● Entry points ● Effect on neighbours/ green-space ● University public image ● Non-university ● Individuals non-compliant ● Around perimeter/edge of campus ● Litter ● Consultation needed before implementation ● Resources ● Education/awareness ● Seasonal differences ● Danger/unsafe 	<p>Implementation of the policy has led to an increased amount of <u>SHS</u>, higher visibility of smokers/litter at <u>entry points</u> and on the <u>perimeter/edge of campus</u> which influences our <u>neighbours/green space</u> and results in a negative <u>university public image</u>. [commented by 198]</p> <p>Policy needs <u>enforcement</u> (i.e. fines, more strict monitoring) and a better <u>reporting</u> program to be more effective. There were many <u>questions</u> about how to approach individuals who are smoking on campus and make them aware of the policy without being harassed/ignored. [commented by 130]</p> <p>More <u>education/awareness</u> is needed about the policy, especially to <u>non-university</u> individuals who are the most non-compliant. Better and more <u>signage</u> are also requested. [commented by 72]</p> <p>Many requests for <u>designated smoking areas</u> to be established on campus. [commented by 56]</p> <p>Other comments [23]:</p> <ul style="list-style-type: none"> ● The top areas of people smoking were in hospital grounds and parking lots/roads, especially on Forsyth where individuals are also likely to get hit by cars, making it dangerous/unsafe. ● Seasonal differences were noted, as smoking was more visible during the summer than winter months. ● There was concern about the perceived lack of consultation with students/staff before implementation of the policy. ● More resources are requested to be in place for people who smoke to help them quit. 	<p>479</p>	<p>67%</p>
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Litter Audit Findings

During the pre-policy litter audit in December 2017, volunteers picked up a total of 3,426 cigarette butts across all six hotspot locations. During the first post-policy audit in March 2018, volunteers picked up a total of 2,962 cigarette butts, representing an overall decrease of 14% from before policy implementation. During the second post-policy audit in December 2018, volunteers picked up a total of 1,025 cigarette butts, representing an overall decrease of 65% from the first post-policy audit. This decrease was consistent across all the hotspot locations except one (Student Centre). There was almost a 50% increase in cigarette butts at the Student Centre, however these numbers were still low compared to before implementation of the policy (Dec-17 audit). In addition to the litter pick-up, volunteers also noted how many people they observed smoking or vaping in their designated hot spot. Pre-policy, they witnessed 43 individuals smoking and 1-year post-policy implementation, they only saw 1 person smoking on campus in those hot spots during the lunch hour. However, this one-person post-policy was observed close to the edge of campus, near the M.K. Residence. A map of the hotspots and results are included in Appendix.

Table 3: Results from pre and post policy litter audits for hot spots on campus

Hotspot Location	Pre-policy (Dec-17) Number of Cigarette Butts Collected	Post-policy (Mar-18) Number of Cigarette Butts Collected	Percent Change (pre to 3 months post-policy)	Post-policy (Dec-18) Number of Cigarette Butts Collected	Percent Change (3 months to 1-year post-policy)
1. North Residences	297	410	+ 38%	301	- 27%
2. University Hall	288	191	- 34%	81	- 58%
3. The Phoenix Bar	331	350	+ 6%	113	- 68%
4. Hospital	983	950	- 3%	103	- 89%
5. Student Centre	600	63	- 90%	93	+ 47%
6. M. K. Residence	927	998	+ 8%	334	- 67%
Total	3426	2962	- 14%	1025	- 65%

Findings from Reduction and Cessation Services Tracking

Table 4 describes the uptake of reduction or cessation resources for students in the McMaster community as tracked by LTPB. These include online or in-person requests for interventions. The three months after policy implementation (January to March 2018), brought the McMaster community up to the Provincial Mean, which McMaster historically had been trailing behind. However, this number decreased in the months following April. Numbers may also be lower than usual from October to December, as LTPB's online platform was closed during this period. In general, the tracking of staff reduction and cessation resources turned out to be more difficult than anticipated by the evaluation team as overall numbers for uptake of resources are low. A promising practice has been the increase in employees and McMaster University community members reached through cessation support workshops. Eight workshops have been held between September 2017 and December 2018 to support those who want to quit, with 36 participants total. This included STOP workshops offered jointly through the Centre for Addiction and Mental Health and Hamilton Public Health Services, workshops provided by Homewood Health, and workshops organized by the Human Resources Services.

Table 4: Use of Reduction/Cessation Resources - Students

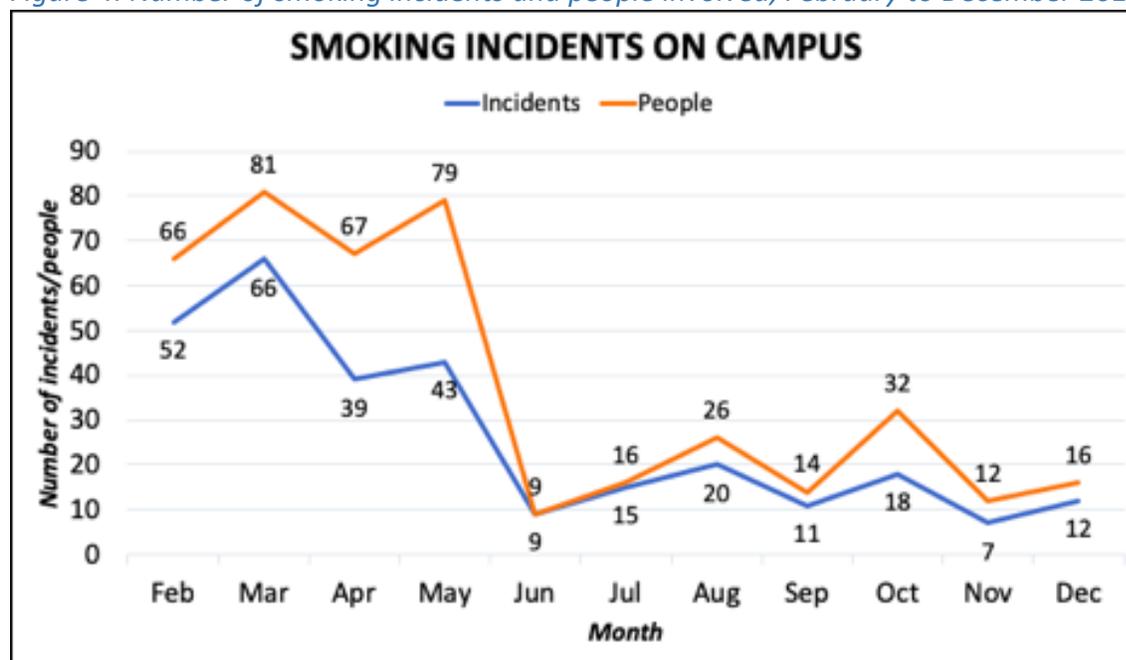
Intervention	Location	Number of young adults accessing intervention			
		Sep-Dec 2017 PRE-POLICY	Jan-Mar 2018 POST POLICY	Apr-Aug 2018 POST POLICY	Sep-Dec 2018 POST POLICY
Patch/gum from Health Professional or online platform OR Quit Kit from Health Professional	McMaster	19	26	16	15*
	Provincial mean	20	24	21	10

*Online platform was closed between Oct 10 – Dec 11 (hence lower than usual numbers)

Compliance Findings

Figure 4 shows the change in the total number of interactions between security officers and those smoking/using tobacco on campus every month after policy implementation. There is a clear decrease in both incidents of smoking and number of people involved from February to December. Number of interactions was the highest during from February to May, and then dropped drastically over the summer months. These numbers also remained low for the Fall/Winter term, from September to December.

Figure 4: Number of smoking incidents and people involved, February to December 2018



E. Discussion and Recommendations

Limitations

The community survey was conducted with a cross-sectional, convenience sample of the McMaster community straddling across three different academic terms. Findings of this survey are not generalizable to the whole McMaster population. Survey recruitment was completed via mainly online platforms; any in-person data collection was completed at the main McMaster Westdale campus only.

Strengths

The impact evaluation data demonstrates that McMaster was successful at reaching its policy objectives, including:

- (a) confirming McMaster's commitment to a healthy and safe environment;
- (b) diminishing exposure to second-hand smoke (SHS);
- (c) supporting reduction and cessation;
- (d) acknowledging ceremonial use of tobacco;
- (e) increasing awareness about the impact of smoking on health; and
- (f) establishing responsibilities of roles regarding policy implementation.¹

The evaluation advisory team continued to engage students in the policy process and shared leadership with design, data collection and presentation of results. This was a learning opportunity for both Nursing 3QQ3 and MPH students and supports continued engagement of students in evaluation efforts on campus.

Collaborations across campus also provided ongoing benefit to the evaluation process. There also continues to be an overwhelming interest in knowledge transfer activities with other institutions requesting access to information about the policy, implementation considerations and evaluation data. Since Jan 1, 2018, approximately 20 other public, post-secondary schools in Ontario have implemented a 100% smoke-free policy on at least one campus.

Challenges

There are some complexities and challenges unique to McMaster that is worth noting. Firstly, McMaster University shares a boundary with the McMaster University Medical Centre (hospital) and the Ron Joyce Stadium; the TSF policy is communicated and enforced on University property and the provincial Smoke-Free Ontario Act and Tobacco & Vapour Products Act is enforced on hospital property as well as stadium properties. This lack of synergy could lead to confusion regarding jurisdiction of policy enforcement and associated infractions. However, unlike the 3-month post-policy litter audit which had the highest amount of tobacco-related litter found in the area between the hospital and campus, the 1-year post-policy litter audit around this area decreased by almost 90%. Much of this decrease is due to the increase in signage that has been put up around the hospital. This emphasizes the importance of further increasing signage and policy communications around the university, especially in areas near the boundaries and perimeter of the campus where larger smoking groups congregate.

Secondly, nighttime compliance may be more difficult to assess when rates of non-compliance in smoke-free areas are usually reported to be higher.⁴ Furthermore, changing seasons can also be a factor in explaining the increasing trend of policy-related security response from January to April; more individuals might be smoking or using tobacco on campus simply because the weather is warmer⁵ versus the winter months during September to December. Less smoking incidents were also seen during the summer months from June to August, possibly due to the decrease in number of individuals on campus. Another factor that might explain the decrease in smoking incidents might be a result of a drop off in monitoring of the policy, which decreases the data available for non-compliance incidents.

Lastly, one current new challenge that will affect ongoing policy support is the recent announcement that the Ontario government will defund Leave the Pack Behind; the provincial program that supports smoking cessation for students. The program was created in 2000 and operates out of Brock University in St. Catharines and offered young adults information on quitting smoking, free support, resources and NRT. Leave the Pack Behind supplied all the NRT dispensed by McMaster Student Health Services

Recommendations

The following are recommended to enhance/improve McMaster's Tobacco & Smoke-Free policy and to respond to some of the specific observations/suggestions collected from the community survey. Recommendations are framed in accordance with best practices in tobacco control that indicate that continued efforts to **promote, enforce and monitor** smoke and tobacco-free policies in colleges and universities, in coordination with continued **implementation of proven population-based interventions**⁶, can help reduce the burden of tobacco product use among those who learn, live, work, and gather in these environments.⁶

1. Promote

a) **Effectively promote policy to new cohorts**

Champion: Communications

- Make use of electronic signs and distributing resources in September during Welcome Week of each year to make sure the new cohort of students as well as staff and visitors are aware of the policy. Policy is communicated during residence move in, parking permits, book store, etc.
- Students are made aware of the policy and available supports through every course syllabus.⁷

b) **Enhance policy communications to visitors, guests and contractors**

Champion: Communications, Human Resources, Public Health Services

- Enhance policy language in procurement contracts.
- Meet with site supervisors before job initiation to review policy, boundaries, and questions and/or create an online training module for supervisors to review prior to job initiation.
- In partnership with Hamilton Public Health; conduct targeted cessation campaign for trades workers.^{8,9}

c) **Enhance policy communication during peak times**

Champion: Communications

- Conduct policy communication blitzes during peak times such as: start of term, winter season, and exams, events (i.e. conferences, camps, grads, and awards). See Appendix 2.

d) **Increase signage and receptacles**

Champion: Facilities Services, Communications

- Review current signage and receptacle locations and thoughtfully increase the amount of them to decrease the amount of litter found on the perimeter of campus, especially near dangerous roadside areas such as Forsyth.
- Create & purchase mobile signage to utilize during peak times/events; especially when guest/visitor attendance will be high.
- Consider the effectiveness of painted sidewalk signage.
- Publish a map of updated receptacle locations to ensure that everyone has knowledge of how to properly dispose of cigarette litter and post these around campus.
- Consider construction crews – work agreements with mobile butt receptacles that are moved once the project is complete if they are no longer needed.
- Consider exams – extra signage or directions to nearest receptacles near exam locations as part of facilities set up.

2. Enforce

There is currently no uniform method for ascertaining how rigorously smoke-free campus policies are enforced. Previous research suggests that although tobacco-free campuses have increased in recent years, policy restrictiveness, implementation, and enforcement vary.⁶

a) Assess effectiveness of current enforcement framework

Champion: Potential Student Placement

- To gain more information on effectiveness of enforcement conduct a mini-assessment specific to enforcement that could include a community survey, intercept interviews, security staff and other stakeholder interviews. Assess this qualitative data against security tracking (quantitative) data to date.

b) Improve enforcement consistency & explore synergies

Champion: Security Services, Public Health Services, Potential Student Placement

- Use data derived from this evaluation to conduct policy enforcement/education/communication “blitzes” during peak times at “hot spot” locations, see Appendix 3. Include promotion of available cessation programs/services.
- Convene a meeting between Working Group Members (Security, Facilities, and HR), Hospital Security, Public Health and possibly the Royal Botanical Gardens and Hamilton Conservation Authority to discuss enforcement consistency and synergies. Explore partnership with regards to consistent messaging and policy education. Conduct a perimeter walk/audit together to inspect/assess hotspot (i.e. Forsyth); assess feasibility for additional signage, receptacles, “hidden benches” or other physical cues that will address visibility and safety issues.

c) Review/explore enhanced enforcement options - some examples below

Champion: Tobacco & Smoke Free Workgroup, Security Services, Public Health Services

See Appendix 4 for Sample Enforcement Framework.

- **Fine Schedule¹⁰**
 - Implement evidence-based practice and approve of and post agreed upon fine schedule on the website.
 - Review other models for fines on campus i.e. parking, library
- **Alternatives to Fines**

Best practice suggests that these changes in culture can happen with everyone working to be respectful of the policy.¹¹ Compliance can be achieved through consistent messaging and policy education.¹¹ Create and implement an ongoing/regular policy

communications campaign or explore innovative solutions like ambassador programs¹² or recognition/incentive program that rewards community members for compliance.

d) Ongoing training/education for security staff

Champion: Security Services, Public Health Services

- Conduct on-going training/retraining for security services on changes to legislation, final enforcement framework and amend their companion policy to the TSF Campus Policy accordingly.

e) Consider creation of a unified Reporting System for community members to report on-campus smoking

Champion: Working Group & Security Services

- Better promote existing reporting systems or consider unifying them to one well-developed system to ensure people have a way of 'peer enforcement' (e.g. number, email, website, cell phone app or a Facebook instant-messaging account that is monitored by security personnel)¹³
- Communicate with the university to educate them about the new system so that people are aware of how to report to security services when they witness a smoking incident on campus.

3. Monitor

a) Track Compliance Data

Champion: Security Services and Working Group

- Ensure effective tracking of the compliance data and compile an annual report of escalated offenders of the policy and any follow up.
- Ensure that reduction/cessation resources are given at the same time as education about the policy.

b) Track Cessation Resource & Services Uptake

Champion: Student Wellness Centre and Human Resources

- Continue to track use of any student resources through Student Wellness Centre and possible Smokers Helpline and set targets for distribution.
- Continue to offer group programming or other innovative cessation resources.

c) Plan to conduct further/ongoing evaluation

Champion: Working Group Members, Potential Student Placement

- Conduct annual policy review.
- Continue to act on evaluation results as they are made available and take advantage of MPH Practicum Students to further understanding of barriers to compliance of the policy.

4. Population-Based Interventions

a) Increase cessation programming & supports available

Champion: Student Wellness Centre, McMaster Human Resources, Public Health Services

- Brainstorm plan to replace Leave the Pack Behind services/supports - i.e. partnership with pharmacy, RAO or other grants, etc.
- Increase accessibility of existing cessation resources through an annual "Intervention Week" that would take place at the end of first semester and include special events, contests, litter audits, etc.
- Work with other partners and stakeholders about best practices as well as promising innovative methods of cessation also featured during the "Intervention Week" such as the Hamilton Care Pathway.

- Implement targeted cessation programs/campaign to reach those with highest prevalence i.e. hospitality and trades workers, vapers, LGBTQ2S+, young adults, social smokers, etc.
 - Work with McMaster Hospital to enhance & promote targeted cessation services/programs for staff.
- b) Implement prevention campaigns targeted at students/young adults**
 Champion: Student Wellness Centre, McMaster Human Resources, Public Health Services
 Campuses have an important role to play in the prevention of smoking initiation.
- The prevalence of tobacco use doubles between the 15-19 (8%) and 20-24 (16%) age groups.¹⁴
 - Experiences in first year greatest impact on tobacco use with focus on alternative and multiple product use.^{15,16}
- c) Implement communications campaigns that address the diversity of tobacco products**
 Champion: Student Wellness Centre, Public Health Services
- Vaping, cannabis, mixing, social smoking, ceremonial/sacred use
- d) Adopt City of Hamilton butt litter campaign**
 Champion: Communications, Facility Services, Public Health Services
- Like Mohawk and Hamilton Health Sciences adopt tested messaging, promotions, and receptacle signage; can be customized to McMaster.
- e) Consider a harm reduction approach to the policy**
 Champion: Student Wellness Centre, Public Health Services
- Adopt best practices to incorporate a harm reduction education approach to how to reduce use in times of stress or when using other substances (e.g. cannabis)
 - Consider working with an MPH student to develop training modules or fun/interactive education tools such as the one found here (about alcohol harms):¹⁷
<http://plato.algonquincollege.com/umbrellaproject/rainydaze/#/alcohol>

5. Knowledge Transfer

Since McMaster's inaugural policy implementation in January 2018, 20 other post-secondary institutions in Ontario have implemented similar policies; watching closely and learning from the McMaster experience. To maintain its status as a leading health promotion institution It is recommended that McMaster continue to share knowledge and provide leadership to institutions across the province/country.

- a) Pursue publishing of 1-year evaluation data**
 Champion: Possible Student Placement, Public Health Services
- b) Engage in available knowledge transfer activities**
 Champion: Human Resources, Public Health Services
- Webinars, conferences, consultations, etc.

Conclusions

Overall, this report aims to further the success of the McMaster Tobacco and Smoke-Free Campus Working Group the corresponding policy implementation and broader provincial movement. The comprehensive impact evaluation data demonstrates that 100% Tobacco & Smoke-Free policies can improve the health of communities through decreasing exposure to second-hand smoke (of which there is no risk-free level), supporting cessation and increasing awareness of the impact of smoking on health. Diverse stakeholder collaboration enhanced the policy development and implementation process and ongoing knowledge transfer activities have positioned McMaster as a provincial leader.

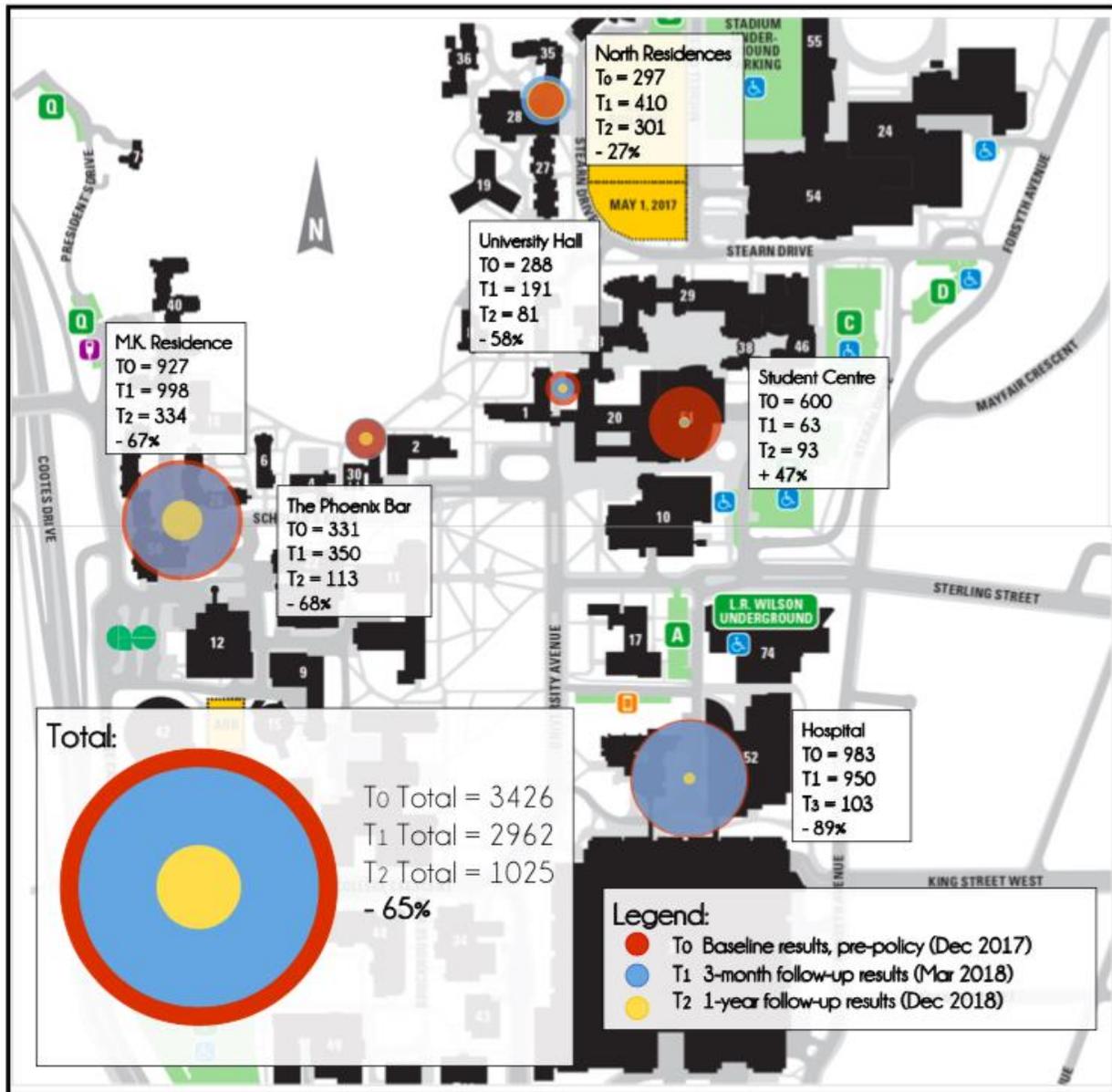
Although policies alone do not change behaviours they are a best practice intervention for changing physical environments, social norms and a tool to keep the critical discussion about tobacco product use going on campus. Effective health policies are only as good as their ability to be enforced; tobacco and smoke-free policies need to be complemented with effective and consistent enforcement strategies of which were discussed in detail above. This is where McMaster an opportunity to set new recommendations for best practice. As suggested, there are also many opportunities for continued evaluation and knowledge transfer moving forward.

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G. Appendices

Appendix 1 - Litter Audit Map



This map of central campus shows the locations of identified hot-spots for the litter audit for pre-policy implementation and 3-month and 1-year post-policy implementation.

Appendix 2 – Recommendations: Communications – Peak Times, Channels & Messages

Based on evaluation data collected the following is a list of peak times where enhanced policy communications/communication “blitzes” should occur:

- Start of new terms – new cohorts, welcome week - vendors
- Exams
- Change of season – Fall to Winter
- National Non-Smoking Week – 3rd week of January
- Large scale events, conferences, march break/summer camps where the University expects a large number of visitors to campus

Recommended channels – the following channels were mentioned specifically by survey respondents:

- Avenue to Learn
- Email
- Physical signage

Recommended messaging – the following message themes were extracted from the assessment of qualitative survey comments:

- How policy is being enforced; penalties/repercussions
- How & who to report violations to – “Any member of the campus community can report violations of the Smoke Free Policy to Security Services by calling (905) 525-9140 extension 24281 or ‘88’ in an emergency.”
- How/where to get support to quit
- Tobacco related litter/environmental message – perimeter of campuses, near receptacles
- Re-communicate FAQ’s – seems many comments were asking questions addressed in FAQ

Appendix 3 – Recommendations: Enforcement – Peak Times & “Hot Spots”

Based on data collected from the butt litter audit and community survey evaluation components the following is a summary of peak times where enhanced enforcement/enforcement “blitzes” should occur:

- Start of new terms – new cohorts, welcome week - vendors
- Exams
- Change of season – Fall to Winter
- Late night – bar/pub nights or events
- Large scale events, conferences, march break/summer camps where the University expects a large number of visitors to campus

The following is a summary of the top “hot spots” for targeted enforcement/education:

Butt Litter Audit:

#1 – Mary Keyes Residence

#2 – North Residence

#3 – The Phoenix Bar

#4 – McMaster University Student Centre*

Least amounts of tobacco related litter, but only site where litter increased from pre-post policy.

Community Survey:

Location	Number of mentions	Notes
West Campus (Forsythe, King’s Walk, MDCL, HSC)	43	HSC blue stairwells specifically noted
Cootes	19	
Hospital	15	
Mills	5	Stairwells & utility areas specifically noted
MUSC	4	Dumpsters & loading docks specifically noted
Thodes	4	
ABB	4	Construction workers noted
IAHS	4	Dumpster area and old smoking shelter specifically noted
David Braley Health Sciences Centre	4	Non-compliant patients specifically noted
Parking Lots	4	Parking Lot H specifically noted
Mary Keyes Residence	3	
Nuclear Reactor Building	3	
JHE	2	
OJN	2	
Royal Botanical Gardens	2	
Phoenix	1	
TSH	1	Noted by office worker
Gilmour Hall	1	
Chester Hall	1	

Appendix 4 – Sample Enforcement Framework

The goal of this enforcement framework is to work to ensure community compliance with McMaster's Tobacco & Smoke-Free Policy; to improve health and safety for staff, students and visitors.

The framework includes the following components: education, inspection, signage, cessation referrals, compliant intake, monitoring/surveillance and enforcement.

Specifically, Security Services will:

- Work with Communications to receive and distribute smoke free policy campaign materials
- Add smoke free campus educational materials to the topics discussed in relation to substance use and abuse by officers in the Constable in Residence Program
- Ask about interest in quitting. Direct/refer those interested to the appropriate support channel:

Campus Resources

- Students – Student Wellness Centre at 905-525-9140 ext. 27700 for an appointment to see a physician for your free Nicotine Replacement Therapy.
- Staff – Homewood Health Program for personal coaching and/or Sun Life Health Benefits for coverage for smoking cessation products

Community Resources

- Smoker's Helpline 1-877-513-5333 Smokershelpine.ca
- City of Hamilton Public Health Services 905-540-5566 hamiltonquitssmoking.ca

It is the University's hope that the entire campus community will work together to implement, communicate and enforce the Tobacco and Smoke-Free Policy.

McMaster University will use a progressive enforcement framework, beginning with education and warnings and progressing to discipline and fines. Education, warnings and fines will be issued according to the following schedule:

Response Option 1 (first & second violations): Education & Verbal warning

Special Constables will provide education related to the policy and explain the requirements for compliance. Along with this, information pamphlets with referral agencies and support information can be provided.

Response Option 2 (third or fourth violations): Refer for follow up

In addition to Response Option 1, Special Constables may refer the matter for follow up to:

- for Students – Student Affairs for Rights & Responsibility Code,
- for Staff – to Human Resources for Discipline
- for Faculty – to Provost for Discipline

Response Option 3 (fifth and subsequent violations): Fees or Fines

In addition to response options 1 and 2, Special Constables may issue a University Violation Notice to the violator imposing a University fine established by the Board of Governors.

Consistent with the Smoke-Free Ontario Act (indoor spaces, hospital properties, sports fields, and reserved outdoor seating venues), City of Hamilton By-Law 11-080 and Royal Botanical Gardens no smoking policy a fee/fine of \$250 can be issued for policy violations.

The campus has instituted a robust communication campaign over the past year and a half, informing campus community members of the policy, the reasons for the policy and how to get support for cessation if needed. McMaster will continue these policy communication efforts to enhance compliance and support enforcement by Security Services.