

# Exposure to Tobacco Marketing and Support for Tobacco Control Policies

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**Objectives:** To examine the salience of tobacco marketing on postsecondary campuses and student support for tobacco control policies. **Methods:** Face-to-face surveys were conducted with 1690 students at 3 universities in southwestern Ontario. **Results:** Virtually all (97%) students reported noticing tobacco marketing in the past year, and 35% reported noticing marketing on campus. There was strong support for smoke-free restrictions on cam-

pus, including restaurants and bars (82%), and for prohibitions on campus marketing. The presence of campus policies was associated with reduced exposure to marketing and increased policy support. **Conclusions:** There is strong support among students to remove tobacco marketing from campus and to introduce comprehensive smoke-free restrictions.

**Key words:** tobacco, smoking, policy, university, college

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Young adulthood is a critical period for smoking behavior. Between the ages of 19 and 24, substantial increases occur in the overall prevalence, frequency, and intensity of smoking.<sup>1,2</sup> At present, 31% of young adults in Canada smoke, the highest rate among all age-groups.<sup>3</sup>

Educational status is one of a constellation of socioeconomic risk factors associated with smoking.<sup>4-6</sup> This relationship is established at the earliest stage of smoking behavior: low academic performance is associated with early-onset

smoking behavior as well as the progression to regular smoking among youth.<sup>6</sup> Among young adults, those attending university or college are substantially less likely to smoke.<sup>7-9</sup> In Canada, approximately, 22% of postsecondary students currently smoke, almost 10% less than other young adults.<sup>1</sup>

Postsecondary students are important to tobacco control for several reasons. First, although smoking prevalence among students is somewhat lower than that of other young adults, it still exceeds the national average of approximately 20%.<sup>3</sup> Second, because more than one third of all young adults attend university or college, there is a greater number of smokers among postsecondary students than any one occupational setting. In Canada, approximately 30% of all young adult smokers and 7% of all smokers attend university or college, far more than any other occupation.<sup>1</sup> As a result, a large number of smokers can be reached in a relatively small number of postsecondary institutions, providing a unique opportunity for tobacco control

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interventions. Third, postsecondary students represent a particularly influential group of young adults. University and college students are role models for youth and serve as a crucial link to youth markets for the tobacco industry. Postsecondary students are also future decision makers who will help to dictate tobacco policy and social norms for the next generation of adults.

Contrary to popular belief, there is evidence that relatively few smokers quit during college or university<sup>10</sup> and as many as 10% of students take up smoking while attending college or university.<sup>9</sup> In fact, as industry documents indicate, postsecondary students may be particularly susceptible to smoking:

*A young adult is leaving childhood on his way to adulthood. He is leaving the security and regiment of high school and his home. He is taking a new job; he is going to college; he is enlisting in the military. He is out on his own with less support from his friends and family. These situations will be true for all generations of younger adults as they go through a period of transition from one world to another. Dealing with these changes in his life will create increased levels of uncertainty, stress, and anxiety...During this stage in life, some younger adults will choose to smoke and will use smoking as a means of addressing some of these areas.<sup>11</sup>*

Although this quote provides an apt description of life for many postsecondary students, it fails to mention the role of industry marketing in encouraging young adults to smoke. Postsecondary campuses and their media outlets provide the tobacco industry with an inexpensive and direct means of targeting young adults and, by extension, youth. Canadian tobacco companies have created national print and event-sponsorship campaigns targeted towards postsecondary students (Figure 1), and there are indications that tobacco marketing on campus has intensified.<sup>12</sup> What, if any, impact do these marketing campaigns have on postsecondary students? To date, we lack the necessary data to understand the influence of tobacco marketing among university and college students.

If postsecondary institutions provide

**Figure 1**  
**JTI-MacDonald Tobacco**  
**Advertisement**  
**Published 03/15/2004 UW**  
**Imprint**



opportunities to the tobacco industry to recruit smokers, they also provide an opportunity to introduce and evaluate leading-edge tobacco control policies. Several Canadian institutions have implemented benchmark initiatives such as prohibitions on tobacco sales and smoke-free policies that include both indoor and outdoor campus areas. However, many universities and colleges have yet to implement progressive tobacco-control policies including comprehensive smoke-free policies, and few have explicit policies restricting tobacco marketing on campus.<sup>12</sup> There is also a general lack of awareness and support among campus decision makers for more stringent measures.<sup>12</sup> Nevertheless, there appears to be widespread support among students for policy change. A national survey of colleges in the United States found that approximately half of college students supported smoke-free campus bars, 71% supported prohibiting

advertising and sponsorship at social events, and 59% supported a ban on campus tobacco sales.<sup>13</sup> In Canada, however, student support for tobacco control policies has yet to be assessed. There is also a lack of data on the impact of campus tobacco control policies on smoking behavior, with one notable exception. Students living in smoke-free housing have been found to be significantly less likely to smoke, both for on- and off-campus housing.<sup>14</sup> In general, however, the effectiveness of campus policies has yet to be evaluated.

The present study sought to examine smoking behavior, exposure to industry marketing, and support for tobacco control policy among students at 3 southwestern Ontario universities. The study also assessed existing campus policies and the association between current policies, the salience of tobacco marketing, and policy support among students.

## METHOD

Three universities located in southwestern Ontario were selected to participate in the current study: the University of Waterloo (UW), Wilfred Laurier University (WLU), and Brock University. All 3 universities provide comprehensive undergraduate and graduate programs and have similar enrollment sizes (UW=24,898, WLU=12,296, Brock=15,527). Structured interviews lasting approximately 5 minutes were conducted at each institution with 2 student union executives and university administrators (eg, campus bar manager, campus newspaper editor, and health services staff). The structured interview assessed campus tobacco policies and the presence of tobacco marketing on campus, including any advertisements in campus newspapers and bars over the past 12 months, tobacco-sponsored events or competitions in the past 12 months, point-of-purchase marketing, and tobacco sales. The presence or absence of campus policies and tobacco marketing were coded as either 0 (absent) or 1 (present). An environmental scan of campus newspapers, retail outlets, bars, and restaurants was also conducted to confirm the presence of tobacco marketing on campus. In the case of a discrepancy, a particular type of tobacco marketing was coded as present if it was identified through the environmental scan. A written copy of the tobacco control policies was

ascertained from each institution.

Face-to-face surveys were conducted with students at each university. Measures were drawn from previously validated sources, including a national survey administered by Health Canada.<sup>3,13,14</sup> A convenience sample was selected from central locations in the main student services building of each campus.<sup>15</sup> Respondents were approached once they passed a geographic landmark and asked to respond to a 10-minute survey of smoking behavior. Respondents were offered a large chocolate bar or \$2 gift certificate for completing the survey. All interviews were conducted between November 1 and December 10, 2003.

## Measures

The student survey assessed validated measures of smoking behavior (current smoking status, cigarettes per day, and intention to quit) as well as demographic variables (age, sex, education level, and program of study).<sup>3,13,14</sup> Nonsmokers responded to 2 measures of susceptibility: "Do you think you will smoke a cigarette within the next year?" and "If one of your best friends were to offer you a cigarette, would you smoke it?"<sup>16</sup> Exposure to tobacco marketing was measured by asking to what extent respondents had noticed various types of marketing, including point-of-purchase promotions, event-sponsorship, newspaper ads, prosmoking media, and electronic forms of marketing. Support for tobacco control policies was measured by asking respondents whether they opposed or supported policies using a 5-point Likert scale, where 0=Strongly oppose and 5=Strongly support. Respondents were also asked how often they noticed any antismoking messages or stop-smoking campaigns anywhere on campus, where 0=Never and 5=Very often. This research was reviewed and received ethics clearance from the Research Ethics Board at the University of Waterloo.

## Analysis

*Current smokers* were defined as respondents who had smoked at least 100 cigarettes in their lifetime and currently smoked daily or occasionally. Respondents who had smoked 100 cigarettes but did not report any current smoking were classified as *former smokers*. One-way analysis of variance with Bonferroni tests for

**Table 1**  
**Sample Characteristics**

	Waterloo	Wilfred Laurier	Brock	Overall
<b>Respondents</b>	562	558	570	1690
<b>Age</b>	20.4	20.3	20.9	20.6
<b>Sex (% Female)</b>	46.7%	59.9%	55.0%	52.4%
<b>Current smoker (%)</b>	8.9%	12.3%	19.4%	12.6%
<b>Daily (CPD)<sup>a</sup></b>	4.7%(8.2)	6.3%(8.6)	13.3%(10.2)	7.5%(9.1)
<b>Non-daily (CPD)</b>	4.2%(1.4)	6.0%(1.6)	5.6%(1.7)	5.1%(1.5)
<b>Intentions to quit within 6 months</b>	37.6%	55.4%	69.8%	55.7%
<b>Former smokers (%)</b>	4.6%	7.4%	7.1%	6.0%

**a Cigarette per Day**

post hoc analyses were used for comparing means. Unless reported, differences between schools were nonsignificant. A logistic regression was conducted to examine smoking status by campus housing status. Odds ratios (ORs) were adjusted for age, gender, program of study, and school. Data were weighted to match sex and age distributions within each university. All analyses were conducted using SPSS (Version 12.0).

## RESULTS

A total of 1690 students responded to the survey, with equivalent sample sizes at UW ( $n=563$  or 2.3% of the total student population), WLU ( $n=558$  or 4.5% of the population), and Brock ( $n=570$  or 3.7% of the population). The survey's overall response rate was 53% (AAPOR #4<sup>17</sup>) and was not significantly different between schools. Table 1 presents the demographic profile and smoking status for respondents at each institution.

### Smoking Behavior

As Table 1 indicates, approximately 40% of current smokers were non-daily smokers and over half of all smokers intended to quit within 6 months. Smoking status was significantly different between schools ( $\chi^2=9.0$ ,  $P=.01$ ) and faculty of study ( $\chi^2 > 25$ ,  $P < .001$  for all 3 schools); however, smoking was not significantly different between the same faculty of study across schools. For example, approximately 19% of students in the faculty of arts/humanities were current smokers, whereas only 1.5% of engineering students reported smoking. Smoking

prevalence was significantly higher among students living off campus (17.0%) versus those who lived on campus (6.9%). After adjusting for age, gender, school, and program of study, students who lived in off-campus housing were 1.7 times more likely to be a current smoker compared to students who lived on campus (OR=1.68, 95%CI=1.19-2.40,  $P=.004$ ). In addition, approximately 18% of nonsmokers reported "maybe" or "yes" when asked whether they might smoke within the next year.

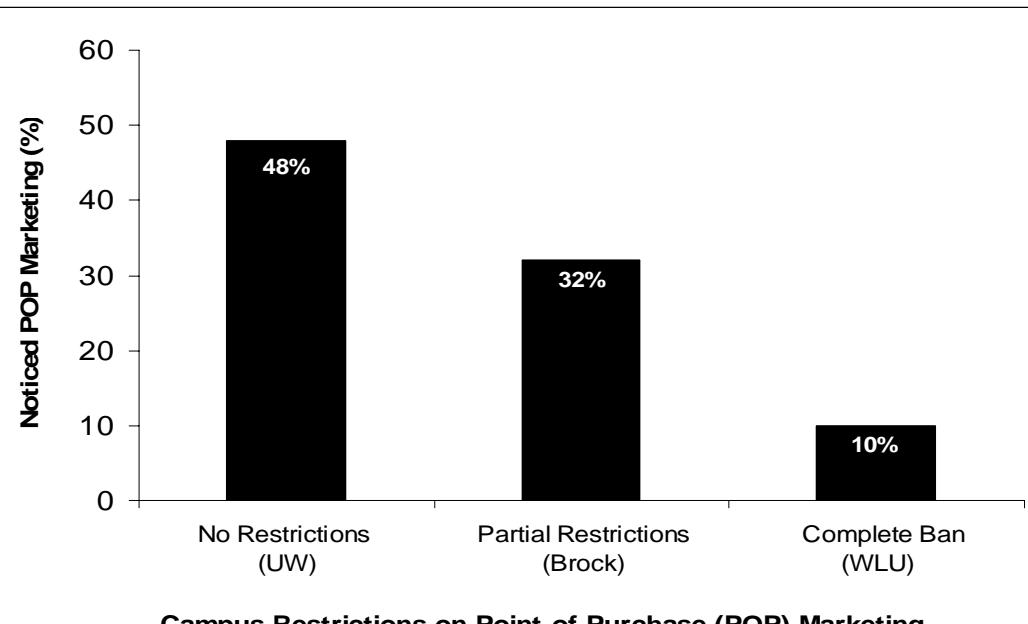
### Exposure to Tobacco Marketing

Table 2 indicates levels of self-reported

**Table 2**  
**Noticing Industry Marketing in the Past Year**

<b>General</b>	
Any form of advertising or promotion	97%
Signs, posters, or billboards	57%
Retail promotions	77%
Newspaper or magazines	77%
<b>Bar/Nightclub</b>	
Bar & nightclub events or promotions	22%
Heard of GoldClub series	17%
Attended nightclub event	3%
Ads, signs, or posters in bars	34%
"Cigarette girls"	11%
<b>Sponsorships</b>	
Sport sponsorships	54%
Theatre, art, or fashion events	9%
<b>Other</b>	
Free gift or promotional giveaways	20%
E-mail promotions	13%
Website promoting tobacco	5%

**Figure 2**  
**Noticing Point-of-Purchase (POP) Marketing and POP Restrictions**



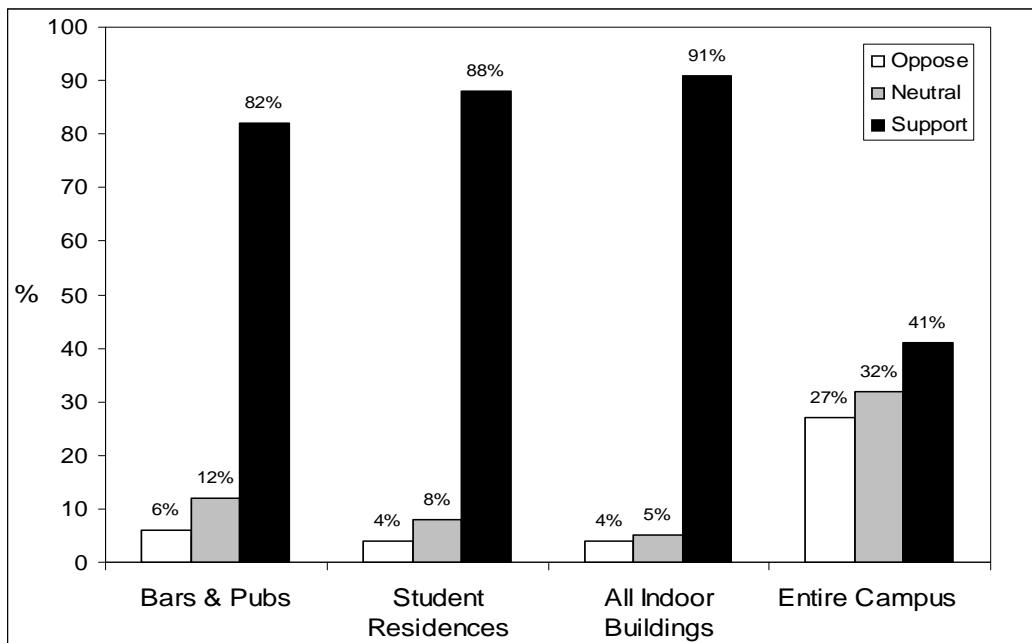
exposure to tobacco marketing among university students. As Table 2 shows, virtually all respondents had noticed some form of tobacco marketing in the past year. Over one fifth of respondents had noticed tobacco-sponsored concert and nightclub events, whereas over half had noticed tobacco sponsorship of sporting events. Note that of those who reported noticing sports sponsorship, only 5% reported attending any such events.

Approximately 35% of students reported noticing tobacco marketing on their campus in the past year. Tobacco advertisements were published in the campus newspapers of all 3 institutions in the month preceding the survey. Between January 2003 and October 2003, tobacco advertisements were published at a rate of approximately 1 ad for every 2 issues. Waterloo had published 14 tobacco advertisements since January, followed by Brock (11) and WLU (9). Note that virtually all ads were full-page color ads. The num-

ber of tobacco advertisements published in campus newspapers was positively associated with noticing tobacco advertising in newspapers ( $F[2,1515]=7.4$ ,  $P<.001$ ). Waterloo respondents were significantly more likely to notice tobacco advertising in newspapers compared to either Brock ( $P=.006$ ) or WLU students ( $P<.001$ ).

Point-of-purchase promotions in campus stores was also associated with noticing tobacco retail promotions in general ( $F[2,1686]=4.5$ ,  $P=.012$ ). WLU respondents were significantly less likely to report noticing point-of-purchase marketing than either Brock ( $P<.001$ ) or UW respondents ( $P<.001$ ). Point-of-purchase displays were in place in all University of Waterloo campus stores and were prohibited in some but not all campus stores at Brock, whereas tobacco sales and point-of-purchase displays were prohibited at WLU. Figure 2 illustrates the relationship between point-of-purchase marketing restrictions and self-reported exposure to

**Figure 3**  
**Policy Support for Campus Smoking Restrictions**



tobacco retail marketing.

All 3 universities had been approached to host a tobacco-sponsored nightclub event, Brock University had hosted a Benson & Hedges GoldClub Series event in the past year; however, Brock students were no more likely to report noticing or attending a tobacco-sponsored club event. (Note that 2 GoldClub Series events were held in the immediate vicinity of Waterloo and Wilfred Laurier within weeks of the Brock concert.)

#### Exposure to Antismoking Media and Resources

Overall, 49% of students reported noticing antismoking information or cessation services on campus. Only one university, Brock, had a comprehensive smoking cessation program on campus.<sup>18</sup> The presence of a comprehensive cessation program was significantly associated with noticing antismoking media or cessation services ( $F[2,1682]=411.0$ ,  $P<.001$ ). Students at Brock were far more likely to report noticing antismoking media or

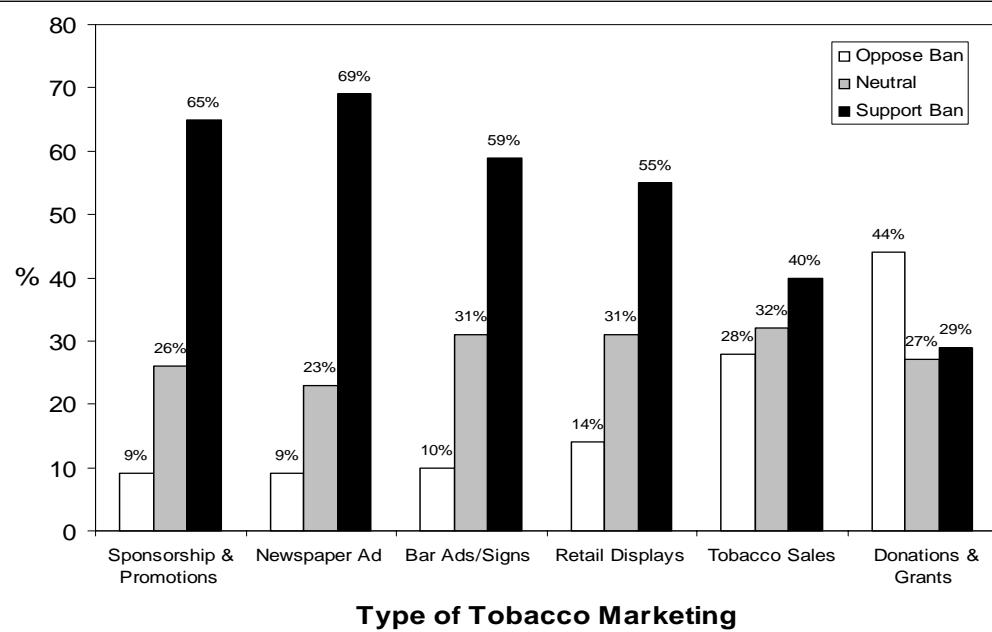
cessation services (80%), than were students at either Wilfrid Laurier (26%;  $P<.001$ ) or Waterloo (40%,  $P<.001$ ).

#### Support for Policy Restrictions

At the time of the survey, smoking was prohibited in all indoor buildings on campus, including student residences. Figure 2 presents the level of student support for smoke-free policies for key venues. Overall, there was very strong support (91%) for restrictions on smoking in all indoor areas. Approximately 41% of students also supported prohibiting smoking in all outdoor areas on campus.

Figure 3 presents the level of support for campus policies restricting various forms of tobacco marketing. Approximately two thirds of students supported prohibitions on tobacco sponsorships and promotions, advertisements in campus newspapers, and advertisements or signs in campus bars. Fewer than 1 in 10 students opposed such restrictions. Over half of students also supported removing cigarette displays and point-of-purchase pro-

**Figure 4**  
**Support for Campus Prohibitions on Tobacco Marketing**



motions, whereas 40% supported sales bans for tobacco products in campus stores; however, more students opposed a ban on accepting tobacco donations and grants than were in favor.

Although strong policy support was observed at all schools, support for individual policies was generally greatest in schools where the policy had already been introduced. For example, support for banning the sale of tobacco products on campus ( $F[2,1682]=16.7$ ,  $P<.001$ ) and for POP restrictions ( $F[2,1682]=19.4$ ,  $P<.001$ ) was highest on campuses where these policies had already been implemented.

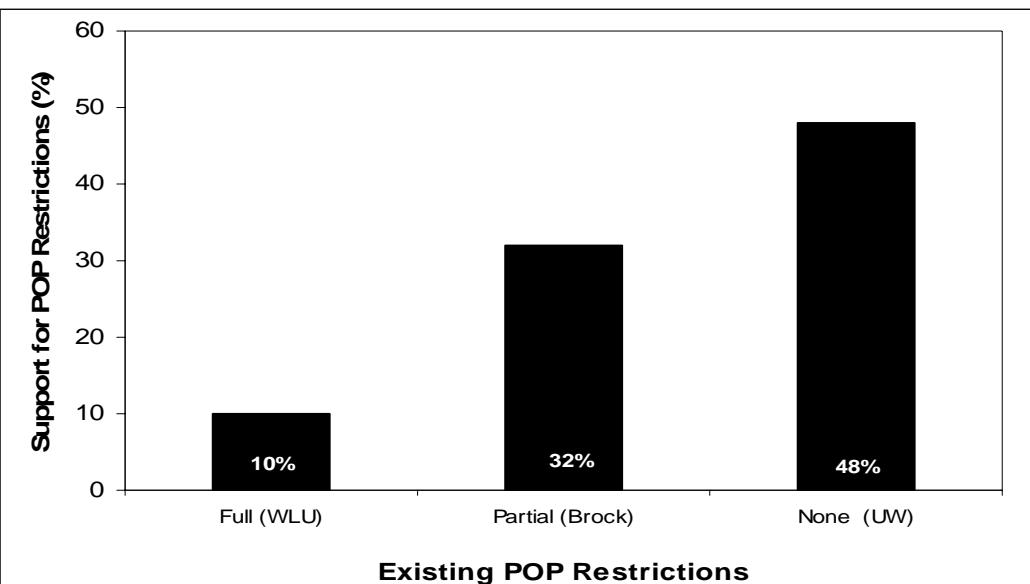
## DISCUSSION

Canada has among the most comprehensive tobacco advertising restrictions in the world. Despite these restrictions, the current findings suggest that exposure to tobacco marketing remains high among postsecondary students. Virtually all university students surveyed reported noticing tobacco marketing, mainly through traditional media such as print

advertising, signs, and retail promotions. A significant proportion of respondents also reported noticing electronic forms of marketing: 13% had received e-mail promoting tobacco products, and 5% had visited an Internet site promoting tobacco. Given that the restrictions on electronic marketing in Canada are unclear under current advertising restrictions, these forms of marketing may become more prominent as tobacco companies search for new means of compensating for increasing restrictions on advertising and promotion.

Approximately one fifth of students also reported noticing nightclub or concert promotions, whereas less than 2% had actually attended these events. Similarly, 54% of students reported noticing sports sponsorships, although fewer than 5% had reported attending any such events. These findings demonstrate that event sponsorships and promotions have a considerable reach that far exceeds the events themselves. Indeed, in Canada, the sponsorship – as opposed to the spon-

**Figure 5**  
**Existing POP Marketing Restrictions and Student Support**



sored event—is heavily promoted through the mass media to reach an even broader segment of the population. As of October 2003, it became illegal in Canada to promote a tobacco company name or brand elements through sponsorship, yet there are no restrictions on holding adult-oriented events and promoting these events through other means. As a result, tobacco sponsorships continue, only in a different form.

The findings also highlight the importance of *on-campus* tobacco marketing. The environmental scan of the 3 universities in this survey support findings from larger studies<sup>12</sup> indicating that tobacco marketing is prevalent among postsecondary institutions. More than one third of students had noticed tobacco marketing on campus, and the prevalence of on-campus advertisements and promotions was associated with self-reported exposure to tobacco marketing and support for tobacco control policies. Overall, this study is among the first to provide evidence of the high salience of campus-specific marketing. The high level of marketing noticed by respondents in our survey may help to explain why

postsecondary students frequently overestimate the proportion of their peers who smoke.<sup>19</sup>

The findings demonstrate very strong support among university students for more stringent tobacco control policies on campus. The vast majority of students supported comprehensive smoke-free policies on campus, including smoking restrictions in restaurants and bars, as well as strong restrictions on tobacco marketing on campus. Relatively strong support was also provided for novel policies, such as tobacco sales bans and outdoor smoke-free policies. There was, however, one notable exception to this support: university students provided only moderate levels of support for prohibitions on accepting grants and donations from tobacco companies, despite growing calls from the public health and academic communities.<sup>20,21</sup> Notwithstanding this one exception, students reported widespread support for comprehensive tobacco control policies, similar to, but exceeding support from US college students.<sup>13</sup> This support needs to be communicated directly to campus decision makers who currently perceive that there exists little

or no support for tobacco control policies.<sup>12</sup>

Substantial differences in smoking prevalence were observed between schools and faculties of study. However, smoking rates within faculties were similar across schools, as has been reported previously.<sup>22</sup> This pattern of results suggests that differences in smoking rates between the schools are mainly due to differences in the student population. The schools not only draw from different geographic regions, but they also have different faculty profiles. For example, Brock University has a high proportion of students in the faculty of arts/humanities – faculties with the highest smoking prevalence—whereas Waterloo has a high proportion of math and engineering students, faculties with the lowest smoking rates.

Given the small sample of schools and the difference in smoking between schools, these findings do not provide a comprehensive study of smoking behaviour among university students. Nevertheless, the data are consistent with previous findings that postsecondary students are less likely to smoke and, of those who do smoke, are more likely to be non-daily smokers than are other young adults and older smokers.<sup>1,23</sup> The findings suggest a high degree of susceptibility among university students: almost 20% of nonsmokers reported that they might smoke within the next year. The current findings also indicate that smoking prevalence is considerably lower among students living in on-campus housing with comprehensive smoke-free restrictions, compared to those living off campus.<sup>14</sup> Together, these data suggest that smoking behavior among university students is relatively elastic and responsive to social and environmental contexts.

The main limitation of the current study is its cross-sectional design. Inferences cannot be made regarding differences in the smoking rates between universities or the impact of campus policies on either smoking behaviour or policy support. Nevertheless, these findings are among the first to examine the salience of campus marketing and its relation to policy support, and the cross-sectional associations are informative. Longitudinal research will help to discern the causal nature of these relationships. A second limitation of this research is that the survey was conducted in the fall, less than half-way through the academic year.

Most students would have been absent from campus in the summer, and first-year students would only have been on campus for 1 to 2 months. The results presented here thus may underestimate the actual level of exposure to tobacco marketing on campus.

Overall, this research suggests that industry marketing remains prevalent in both on- and off-campus environments. There is strong support for more comprehensive tobacco control policies on campus, and these policies may be effective in reducing exposure to tobacco marketing. At the time of data collection, new restrictions on sponsorship activities were introduced in Canada. Observational and anecdotal evidence suggests that tobacco marketing on campus has since decreased, but nevertheless continues. Considering the importance of postsecondary students to tobacco control efforts, there is an immediate need for postsecondary institutions to heed the voice of their students and introduce more stringent tobacco control policies.

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