Smoking in the workplace: do smoking patterns and attitudes reflect the legislative environment?

Linda L Pederson, Shelley B Bull, Mary Jane Ashley

Abstract

Objective – With regard to the workplace, to examine restrictions on smoking, smoking at work, attitudes toward and reactions to restrictions, and workplace programmes in the context of the legislative environment.

Design – Population-based telephone interview survey of adult residents of the jurisdictions of Metropolitan Toronto, Ontario, Canada.

Subjects – Workers within the City of Toronto (n = 374) were compared with other workers (n = 536), because their legislative environments with regard to workplace smoking were markedly different, with workplaces in the City of Toronto being covered by a much more stringent bylaw.

Results – In comparison with other workers, City of Toronto workers reported workplace restrictions to be more common and widespread. These workers were also less likely to smoke at work, and more likely to smoke less at work and to have cut down on smoking at work. Quit-smoking rates, however, were similar. There was evidence of some compensatory smoking outside work, but additional compensation in association with more stringent restrictions was not found. City workers and other workers were similar in their support for smoke-free workplaces, in their attitudes to the role of governments in regulating workplace smoking, and in their perceptions of conflict between smokers and non-smokers. Reports of quit-smoking programmes and educational interventions in the workplace were similarly uncommon, although both groups of workers indicated strong support for the role of business and industry in helping people quit.

Conclusions – Restrictions on smoking and smoking patterns reflected the legislative environment; a more stringent environment was associated with more restrictions and less smoking at work.

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Keywords: smoking; legislation; workplace; population survey

Introduction

In response to growing concerns about the health effects of environmental tobacco smoke (ETS),¹⁻⁴ many individual workplaces have

voluntarily implemented restrictions on smoking, ranging from limits on where smoking can take place to total bans.⁵⁻⁷ In addition, some municipalities have passed legislation to restrict or eliminate smoking in the workplace.⁸⁻¹⁰ Several studies designed to evaluate such restrictive interventions indicate reductions in the amount smoked at work,¹¹⁻¹⁸ and in smoking rates.^{11, 12, 16-18} In addition, there is some evidence that approval by workers of smoking restrictions increases after their implementation.⁵

The City of Toronto, Ontario, Canada, (population 635 395; 1991 census) is one of six jurisdictions that make up Metropolitan Toronto (population 2 275 771; 1991 census). It was the first to pass a bylaw to restrict smoking in the workplace (table 1). The bylaw came into effect on 1 March 1988, and required all employers to adopt and implement a smoking policy for each workplace and to prohibit smoking when employees could not agree on other restrictions. It also required the posting of signs restricting or prohibiting smoking.¹⁹

In a short-term evaluation of the impact of the bylaw (nine months after implementation), we found that City workers reported significantly more changes with regard to smoking patterns in the workplace and workplace smoking programme and policy interventions than did other workers in Metropolitan Toronto,²⁰ despite the fact that one of the jurisdictions (Etobicoke, population 309 993; 1991 census) had implemented a similar bylaw in the interim.²¹ Post-implementation, there

Table 1 Legislative environment: smoking in the workplace

Jurisdiction	Effective date
Province of Ontario Legislation requires all enclosed workplaces to be smoke-free, but one or more locations not exceeding 25% of the floor space can be designated as smoking areas.	1 January 1990
City of Toronto All employers required to adopt and implement smoking policy. If employees cannot agree, smoking is to be prohibited.	1 March 1988
Etobicoke New stringent bylaw replacing earlier bylaw imminent or in effect. Workplaces smoke-free unless smoking confined to enclosed, separately ventilated areas. Bylaw passed in 1991. Long period provided for accommodation.	1 January 1993
East York North York Scarborough York All employers required to adopt and implement smoking policy. If employees cannot agree, smoking is to be prohibited.	1 July 1988
No workplace smoking bylaws	

Community Health and Preventive Medicine, Morehouse School of Medicine, and Drew-Meharry-Morehouse Consortium Cancer Center, Atlanta, Georgia, USA
LL Pederson

Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Preventive Medicine and Biostatistics, University of Toronto, Ontario Tobacco Research Unit, Canada
SB Bull
MJ Ashley

Correspondence to: Dr L Pederson, Community Health and Preventive Medicine, Morehouse School of Medicine, Atlanta, Georgia 30310, USA

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were still reports of non-compliance with the regulations from over a third of the City workers. Additionally, although smokers reported modifying the amount they smoked overall, and how much they smoked in the workplace, there was no reduction in the prevalence of smoking from pre-implementation levels.²⁰

Although, as expected, the bylaw had significant effects in the short-term, the differential impact over the longer term was much less certain, given the rapidly changing social norms with regard to the control of smoking in the community at large, and the continuing implementation of new restrictions on smoking, both voluntary and legislated (see table 1). For example, on 1 January 1990, legislation regulating smoking in the workplace, which had been passed by the Province of Ontario, came into force, affecting all six jurisdictions. Under this legislation all enclosed workplaces (with some exceptions) were to be smoke-free. However, an employer could designate one or more locations in an enclosed workplace as smoking areas, provided these areas did not exceed 25 % of the floor area of the enclosed workplace. Designated smoking areas had to be identified by the posting of signs, but they did not have to be enclosed and separately ventilated.²²

In 1991, the City of Toronto passed a new, more stringent bylaw that came into effect on 1 January 1993. This bylaw required all workplaces (with one or more employees) to be smoke-free, unless an enclosed, designated smoking area with separate ventilation was provided. Employers were required to inform their employees of the smoking restrictions, and post no-smoking and health warning signs conspicuously in smoke-free and designated smoking areas, respectively.^{23, 24} These requirements took precedence over those of the provincial legislation. Because of the stringency of the bylaw, including the requirement for enclosed, separately ventilated smoking areas if smoking was not prohibited, a long accommodation period was provided before the bylaw came into effect.

Between December 1992 and March 1993, workers in the City of Toronto and elsewhere in the greater Toronto area were resurveyed. About half the interviews were carried out less than a month before the bylaw affecting City of Toronto workers took effect and the rest were done two months after the effective date. The purpose of this analysis is to describe restrictions on smoking, smoking at work, attitudes toward and reactions to restrictions, and workplace programmes in the context of the legislative environment that prevailed in this large Metropolitan area. Because the regulatory environment in the City of Toronto was markedly different from that in the other jurisdictions, both in the length of time that bylaw restrictions had been in place and in the stringency of restrictions that were imminent or in place at the time of the survey, we compared workers in this jurisdiction with workers in the others.

Methods

SAMPLING DESIGN

Because the survey had broader objectives than the ones addressed in this paper, the target population included all residents of Metropolitan Toronto 18 years old or older (population 1819415; 1991 census). The sampled population consisted of all residents living in households with active telephone numbers during the data collection phase (97 % of the population). To obtain a representative probability sample from the target population, a two-stage design was employed. First stage units were households within Metropolitan Toronto. Households with active telephones were selected, using random digit dialling. The second stage of sampling involved selection of an individual respondent from the household, by choosing the person whose month and day of birth was most recent.²⁵

DATA COLLECTION

Data were collected during a standardised 25–30-minute computer-assisted telephone interview conducted in December 1992 and in March 1993, using a pretested questionnaire available in English, French, and Italian. At least eight call-backs at prespecified times during the day, in the evening, and on weekends were carried out before a number or a respondent was declared unreachable. For respondents who worked outside the home, items included their perceptions about laws on smoking in the workplace, restrictions in their own workplaces, the smoking behaviour of the respondent and co-workers, the impact of restrictions on smoking at work, smoking cessation and educational programmes in the workplace, attitudes toward restrictions on smoking in the workplace, and sociodemographic characteristics. (A copy of the questionnaire is available from the first author.) To assess test-retest reliability, a sample of 193 respondents was recalled within two weeks and asked key questions about their smoking status, knowledge, and attitudes. Agreement was high ($K \geq 0.70$) for factual items such as smoking status and place of work, but lower for attitude items such as agreement with restrictions (K ranging from 0.40 to 0.70).

SAMPLE SIZE AND STATISTICAL ANALYSIS

Of the 5702 telephone numbers randomly generated at the first stage of sampling, 3150 were from ineligible households, and 266 did not have their eligibility determined. Ineligible numbers were those for households not in Metropolitan Toronto, non-residential numbers, and individuals who were incapable of being respondents either because of language difficulties or illness. From 2286 eligible households, 1429 respondents completed the interview, yielding a response rate of 62.5 % for the overall survey.

The observations of 1429 respondents, both workers and non-workers, were weighted according to the number of adults in the

household and the relative frequency in the 1991 census age-sex distribution for Metropolitan Toronto. Among the 1429 respondents, there were 910 who worked for pay outside the home. These are included in the analyses reported here; 374 worked in the City of Toronto (including 96 current smokers) and 536 worked elsewhere in the Metropolitan Toronto area or outside Metro (including 166 current smokers). With these sample sizes, differences of 7 percentage points between the City and the other workers were detectable for non-smokers and smokers combined, and differences of 14 percentage points were detectable for smokers.

Responses to the items of interest were tabulated as percentages within the two workplace groups and for all workers, and corresponding 95% confidence intervals were calculated.^{26, 27} An overall χ^2 test was used to assess homogeneity of responses between the groups. For responses with more than two categories, the categories in which the groups differed were determined by examining 95% confidence intervals for differences in percentages.

SAMPLE REPRESENTATIVENESS
Sociodemographic characteristics of the survey respondents, including place of residence, marital status, level of education, labour force participation, and occupation, were compared with 1991 census data for Metropolitan Toronto to examine potential bias in the sample due to non-response. The distribution of the 1429 survey respondents by place of residence was very similar to the 1991 census distribution, with 29% living in the City of Toronto and 71% in the other five Metro

jurisdictions. In comparison with the census, the survey respondents over-represented married or separated individuals and high-school and university graduates. The latter finding has also been reported by other survey researchers.²⁸ Small differences were observed for employment status and for occupational categories (4–7 percentage points) but, because the census and survey questions for labour force participation were not entirely comparable, no post-stratification adjustments were made and no comparisons with census data were made for the subgroup of workers with regard to other sociodemographic information.

Results
KNOWLEDGE OF HEALTH EFFECTS OF ETS, LAWS RESTRICTING SMOKING IN THE WORKPLACE AND ATTITUDES TO SUCH RESTRICTIONS
Most workers in both City of Toronto workplaces (City workers) and workplaces outside the City were aware that ETS poses a health risk to non-smokers (table 2). Similarly, almost all workers knew that there were laws restricting smoking in the workplace, although less than a third of both groups were specifically aware of the provincial legislation. When workers were asked whether or not there was a municipal workplace smoking bylaw in their jurisdiction where they worked, a majority of both groups replied in the affirmative, although in fact, as described earlier, only the Cities of Toronto and Etobicoke were so covered. In this regard, however, significantly more City workers responded in the affirmative (74.1% *vs* 61.7%), probably reflecting the recent passage of a very stringent bylaw by the City of Toronto. Only half the workers were aware that all workplaces are covered by existing legislation (the provincial law). There were no differences between the groups in their perceptions of what the laws say about smoking at work. The groups were also alike in their attitudes toward workplace smoking restrictions; a clear majority of both groups thought that governments should enact restrictions.

Table 2 Knowledge of health risks of environmental tobacco smoke and of current laws restricting smoking in the workplace, and attitudes toward such restrictions

	City workers (%) (n = 374)	Other workers (%) (n = 536)	All workers (%) (n = 910)	City <i>vs</i> other <i>p</i> value
Second-hand smoke carries health risks to non-smokers	92.6	91.3	91.8	0.55
Are there any laws restricting smoking in the workplace?	89.4	86.5	87.7	0.37
Is there a law that covers the whole province?	29.1	31.2	30.3	0.57
Does (*) have its own law to restrict smoking in the workplace?	74.1	61.7	66.8	0.001
All workplaces covered by the laws?				
Yes	54.9	49.2	51.6	0.18
No	24.3	29.3	27.2	
Don't know/refused	20.9	21.5	21.2	
What do the laws say about where smoking is allowed at work?				
Not allowed at all	22.9	20.7	21.6	0.27
Only in certain areas	62.8	60.0	61.1	
Allowed everywhere	0.7	0.9	0.8	
Don't know/refused	13.7	18.4	16.4	
All workplaces should be smoke-free	62.5	61.4	61.7	0.49
Smoking should be permitted at work, but only in certain areas	80.0	80.4	80.3	0.99
Governments should make laws about smoking at work	83.1	78.4	80.3	0.13
Each workplace should have the right to decide whether to permit smoking or not	55.3	60.4	58.3	0.27

* Jurisdiction in which the respondent works.

RESTRICTIONS IN THE WORKPLACE AND WORKERS' ATTITUDES TO THESE RESTRICTIONS
There were significant differences ($p < 0.001$) between City workers and other workers in their reports of actual restrictions in their own workplace (table 3). City workers were more likely to report that smoking is not allowed at all (55.1% *vs* 35.1%) and that smoking was prohibited in specific areas of the workplace. The large majority of both groups were satisfied or very satisfied with policies about smoking at work; there was a tendency for more City workers to be very satisfied, but overall, the differences between the groups were not statistically significant.

SMOKING IN THE WORKPLACE AND WORKERS' REACTIONS TO IT
City workers and other workers were significantly different with regard to smoking at work (table 4). In particular, city workers were

Table 3 Restrictions on smoking in the respondent's workplace and attitudes toward these restrictions

	City workers (%) (n = 374)	Other workers (%) (n = 536)	All workers (%) (n = 910)	City vs other p value
Does the place where you work have restrictions on smoking (Yes)	87.7	78.3	82.2	0.01
What are the restrictions?				
None	10.5	18.6	15.3	0.001
Certain areas	32.6	43.2	38.8	
Not allowed at all	55.1	35.1	43.3	
Don't know/refused	0.7	2.2	1.6	
Where is smoking not allowed?				
Special smoking room	63.5	48.5	54.7	0.001
Private offices	81.3	67.0	72.8	0.001
Rest rooms	83.2	69.2	74.9	0.001
Lobbies	83.1	69.1	74.8	0.001
All of cafeteria	83.1	69.3	75.0	0.001
Special section of cafeteria	73.9	53.3	61.8	0.001
Outside building	56.2	36.1	44.4	0.001
How satisfied are you with the policies about smoking at work?				
Very satisfied	57.8	50.1	53.3	0.10
Somewhat satisfied	26.5	30.0	28.6	
Somewhat dissatisfied	7.8	11.3	9.8	
Very dissatisfied	5.3	6.9	6.2	
Don't know/refused	2.7	1.8	2.1	

Table 4 Smoking in the workplace and reactions to it

	City workers (%) (n = 374)	Other workers (%) (n = 536)	All workers (%) (n = 910)	City vs other p value
Smoking status (at work)				
Never smoked	54.1	50.5	52.0	0.01
Quit ≥ 6 months	16.9	14.2	15.3	
Quit < 6 months	3.5	4.5	4.1	
Smoker: not at work	11.8	8.7	9.9	
Smoker: at work	13.8	22.2	18.8	
In your workplace would you say...				
Most workers smoke	6.9	10.3	8.9	0.12
About half smoke	13.3	17.9	16.0	
Less than half	39.4	37.9	38.5	
Almost none smoke	27.3	23.8	25.2	
None smoke	10.4	7.8	8.9	
Don't know/refused	2.7	2.3	2.4	
Are you bothered by other people smoking at work?				
Always	11.4	9.8	10.4	0.42
Most times	4.7	5.1	4.9	
Sometimes	10.9	13.7	12.6	
No smokers at work	13.1	10.0	11.3	
No	59.4	60.7	60.2	
Don't know/refused	0.4	0.8	0.6	
If another employee smokes in your work area, do you... (Yes)				
Ask him/her to stop?	54.8	50.0	52.0	0.15
Feel like asking him/her to stop, but don't feel comfortable doing it?	32.8	29.3	30.7	0.26
Indicate disapproval without saying so?	26.0	25.3	25.3	0.82
Ask him/her to leave?	26.8	24.3	25.3	0.40
Try to move away?	39.7	44.1	42.3	0.19
Continue working without noticing?	26.3	33.4	30.5	0.02

much less likely to smoke at work. There were no statistically significant differences between the groups in their perceptions of smoking by co-workers, although there was a tendency for City workers to report less smoking than was the case for other workers. For the most part, the groups were similar in their reports of being bothered by others' smoking and also in their responses to how they would respond if another employee smoked in their work area. However, fewer City workers than other workers responded that they would continue working without noticing that smoking was occurring.

SMOKERS' OWN SMOKING IN THE WORKPLACE
City workers who smoked were much less likely to report that they smoked at work than were other workers who smoked (table 5) and

were much less likely to smoke 11 or more cigarettes per day. There were also some differences between the groups in where they smoked; fewer City workers smoked in the lunchroom/cafeteria, in designated smoking areas, and outside the building.

CHANGES IN SMOKING IN THE WORKPLACE SINCE LAWS CAME INTO EFFECT
More City of Toronto workers than other workers reported that notices about non-smoking areas (a specific requirement of the City of Toronto bylaw) were posted (table 6). The groups, however, were similar in their perceptions of how most smokers were reacting to the restrictions, and of changes that took place in smoking at work. They were also similar in their perceptions of conflict arising from the restrictions. With regard to changes in smokers' own smoking as a result of the restrictions, City workers were more likely to report that they had cut down, and less likely to report that smoking at work had stayed the same.

SMOKING PROGRAMMES IN THE WORKPLACE
There were no differences between the groups in the prevalence of smoking cessation programmes, incentive programmes, or the provision of educational messages or programmes. The frequencies of all these activities were minimal. Overall, less than 10% of workers indicated that smoking cessation programmes were offered in their workplace and only 22% reported receiving pamphlets or being offered lectures about smoking and health. In contrast, a clear majority of workers in each group thought that business and industry should do more to help people quit, and about half thought that quit-smoking programmes should be put on during work hours. Most workers (77%) thought such programmes should be free.

Discussion
Although all workplaces in Metropolitan Toronto were covered by the provincial *Smoking in the Workplace Act*,²² workplaces in the City of Toronto were, in addition, covered by much more stringent restrictions that were either in effect or imminent when the data were collected.²³ We hypothesised that the situation in the City of Toronto with regard to workplace smoking would reflect this legislative environment, and that, as a consequence, differences would be found between City workers and others workers in reports of restrictions on smoking, patterns of smoking, attitudes towards restrictions, reactions to smoking, and workplace programmes.
With regard to restrictions on smoking and patterns of smoking, the findings confirm the hypothesis. City workers were much more likely to report restrictions in a range of workplace settings and much less likely to smoke at work. If they did smoke, they smoked less than their non-City counterparts. Com-

Table 5 Smokers' reports on own smoking at work

	City workers (%) (n = 96)	Other workers (%) (n = 166)	All workers (%) (n = 261)	City vs other p value
Do you smoke at work? (Yes)	53.9	72.0	65.4	0.001
How many cigarettes do you normally smoke at work in a day?				0.001
None	46.1	26.3	33.5	
≤ 5	17.2	31.7	26.4	
6-10	29.2	17.9	22.0	
≥ 11	7.6	22.4	17.0	
Refused	—	1.7	1.1	
At work, do you smoke...				0.12
At your desk/own work area?	21.1	29.8	26.6	
Another office/work area?	16.4	18.0	17.4	0.73
In the restroom?	15.4	12.1	13.3	0.45
In a corridor?	7.0	10.7	9.4	0.32
In the lunchroom/cafeteria?	16.0	32.7	26.6	0.003
In designated smoking areas?	28.6	50.3	42.3	0.001
Outside the building?	39.8	57.7	51.1	0.01
When you want to smoke in your work area, what do you usually do?				0.02
I don't smoke at work	46.1	26.3	33.5	
I don't smoke in my work area	28.5	36.8	33.8	
I light up without really thinking about it	16.4	26.8	23.0	
I look around to see if it's okay/I ask if others mind	6.3	6.6	6.5	
Don't know/refused	2.6	3.4	3.1	

Table 6 Changes in the workplace since smoking laws came into effect

	City workers (%) (n = 374)	Other workers (%) (n = 536)	All workers (%) (n = 910)	City vs other p value
Notices posted about non-smoking areas (Yes)	62.5	54.7	57.9	0.02
Other information about non-smoking areas provided (Yes)	16.8	13.9	15.1	0.22
What has happened to people's smoking at work? (Yes)				
A lot of smokers have...				
Quit	22.9	24.6	23.9	0.54
Tried to quit	48.5	55.2	52.4	0.05
Smokers have cut down	55.4	59.8	58.0	0.19
People smoke less at work, but more outside work	52.3	55.7	54.3	0.32
Non-smokers are more likely to ask people not to smoke	57.3	59.0	58.3	0.62
People tend to smoke only in certain areas	77.1	75.5	76.2	0.57
Between smokers and non-smokers there has been...				0.09
A lot of conflict	17.2	19.1	18.3	
Some conflict	41.3	42.3	41.9	
Not much conflict	30.3	23.6	26.4	
Don't know/refused	11.3	15.0	13.5	
As a result of restrictions on smoking at work have you... (Yes)				
Smokers only:	(n = 96)	(n = 166)	(n = 261)	
Tried to quit	26.7	23.2	24.5	0.52
Cut down	64.4	47.1	53.5	0.01
Stopped smoking at work	25.6	16.8	20.0	0.09
Smoke less at work, more at home	40.7	40.6	40.6	0.99
Smoking at work has stayed the same	32.4	50.4	43.8	0.01

pared with other workers, more City workers who smoked also reported that, as a result of restrictions on smoking at work, they had cut down on their smoking. It is important to note that the changes did not appear to have been associated with additional conflict between smokers and non-smokers in the workplace. City workers were no more likely than other workers to report such conflict.

Although patterns of restrictions and smoking at work clearly reflected legislated restrictions, there was less evidence in this study of an effect of restrictions on smoking cessation. Former smokers were only slightly more prevalent among City workers than among other workers (20.4 % and 18.7 %, respectively), and there was no statistically significant difference in the percentages of smokers reporting that they had tried to quit (26.7 % and 23.2 %, respectively). Some studies have demonstrated significant reductions in smoking rates following implementation of site-specific workplace restrictions.^{11, 12, 16-18} For many smokers, sustained quitting appears to be a long-term process of change involving several steps.²⁹ Some authors have suggested that a decrease in the amount smoked in response to restrictions may be an important step in the cessation process.^{30, 31} This hypothesis requires evaluation in longitudinal studies.

Our findings do suggest that some workers who decreased their smoking at work may have compensated by smoking more outside the workplace. However, there was no evidence of additional compensation in City workers compared with other workers, even though their smoking at work was substantially less. About 40 % of both City and other workers reported that as a result of restrictions on smoking at work, they smoked less at work but more at home. This finding raises the possibility that workplace restrictions, although effective in reducing workplace exposures, may have some unintended adverse effects. Increased smoking in the home may increase the exposure of spouses and children to environmental tobacco smoke, clearly an undesirable outcome.² Few studies have specifically examined this issue, but some of the available findings do suggest that some compensation may occur even though overall consumption declines.³⁰ For example, Borland *et al.*³² found small overall increases in cigarette consumption outside the workplace following implementation of a work-site ban and Scott and Gerberich¹⁸ reported that 21.2 % of smokers reported smoking more outside of work following a ban. Brigham *et al.*,¹⁴ however, found no compensatory effect. The issue of compensation warrants specific study.

Although smoking patterns in City workers and other workers clearly reflected differences in the stringency of the legislated restrictions which were in place, attitudes to smoking restrictions did not differ between the two groups. Similar percentages, 62.5 % and 61.4 %, of City and other workers, respectively, agreed with the statement that workplaces should be smoke-free, and 80 % of both groups agreed that smoking should be permitted at work, but only in certain areas. A clear majority of both groups agreed that governments should make laws concerning smoking. On the other hand, a majority indicated that each workplace should have the right to decide whether to permit smoking or not. Although these responses suggest some inconsistency in attitudes toward worksite smoking restrictions, the overall findings indicate widespread support for workplace smoking restrictions. It is interesting to note that the level of satisfaction in general among workers is remarkably similar to that reported by owners and managers in City of Toronto at over 80 %.²⁴

Two findings require some additional explanation. Because the 1991 City of Toronto bylaw requires that smoking be confined to separate enclosed areas which are separately ventilated, on the surface it may appear incongruent that significantly more City workers reported that smoking was not allowed in special smoking rooms. As well, City workers who smoked were much less likely to report that they smoked in designated smoking areas. However, when the bylaw was passed many workplaces would not have had areas suitable for smoking that were enclosed and separately ventilated, and further, because of cost considerations, their construction would be unlikely. Thus, the alternative option, that of prohibiting smoking, was much more likely to occur in City workplaces than in workplaces elsewhere in Metropolitan Toronto. These apparently incongruent findings are consistent with this scenario, as are the findings that City of Toronto workers who smoked were much less likely to smoke at work.

With regard to smoking cessation programmes and other cessation measures in the workplace, there were no differences between the reports of City and other workers. Cessation programmes in workplaces overall were uncommon. Similarly, educational messages and incentive programmes were minimal. There is now considerable evidence that workplace cessation programmes can be effective.³³⁻³⁷ More than three-quarters of workers in Metropolitan Toronto agreed that business and industry should do more to help people quit and that quit smoking programmes should be free; 55% indicated that quit smoking programmes should be put on during work hours. These findings suggest that workplace smoking cessation should be a priority on the programme agenda.

These findings should be interpreted with caution. It is not clear how much misrepresentation of smoking behaviour by smokers may have occurred because of the growing social unacceptability of smoking. Recent studies suggest that, although some misrepresentation may occur, its frequency is low.^{38, 39} If such a bias were operating to any extent, it would tend to exaggerate differences between City and other workers. It should also be kept in mind that the survey was conducted just before and two months after implementation of the most recent City of Toronto bylaw and this analysis combines information from both periods. Because of the stringency of the bylaw, which required either that smoking be prohibited or that it be restricted to enclosed, separately ventilated smoking areas, a long period of accommodation was provided between the passage of the legislation and the implementation date. Many workplaces would have accommodated to the requirements of the bylaw by the time the first data were collected. However, some would not have done so, and thus, in all likelihood, differences between City workers and other workers would have been even more marked if all of the interviews had been carried out after 1 January 1993.

This report presents results from a single

cross-sectional survey. Therefore, it is not possible to attribute differences to the legislation. It might be that differences existed long before such restrictive measures were enacted and, in fact, led directly to their acceptability and enactment. The purpose of this report was to describe the current situation, not to explain what led to that situation. Future reports will attempt to trace both the changes in restrictive measures and changes in knowledge, attitudes, and behaviour.

Despite the changes that had occurred, workplaces were not smoke-free. The provincial legislation, the only legislation pertaining to most workplaces in Ontario, is clearly deficient in that unlike the City of Toronto bylaw, it does not require that designated smoking areas be enclosed and separately ventilated. Continuing efforts are required to ensure that legislators, as well as workers, and owners and managers, are fully aware of the adverse effects of ETS on health, and that effective restrictions on smoking in the workplace, mandated by rigorous legislation, are put in place and enforced.

Notwithstanding its health protective effect, the control of smoking in the workplace may be the most significant step that now can be taken to further enhance the growing social unacceptability of smoking.⁵ Because of the large numbers in the workforce, the potential for impact is great. As well, in the worksite, particularly, the benefits of restrictions may translate into economic factors, such as increased productivity and reductions in days lost from work, cleaning costs, costs from ventilation, and fire insurance costs. In addition, the workplace should be an ideal setting for cessation programmes, and offers special opportunities for enhancement of programme uptake and effectiveness through mechanisms such as incentives and benefits policies that provide financial support.^{34, 35, 40}

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