Prevalence and Factors Related to Canadian Workplace Health Programs

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ABSTRACT

Background: This study documented the prevalence and factors related to workplace health programs in Canada, including Employee Assistance Programs (EAPs), drug testing programs, and Health Promotion Programs (HPPs).

Methods: A representative sample of 565 Human Resources Managers at worksites with 100 or more employees across Canada completed a questionnaire on the worksite characteristics and the types of programs at their workplace (response rate = 79.8%).

Results: EAPs were established in 67.8% of sampled worksites (95% CI: 63.9%-71.7%). The proportion of worksites with EAPs varied significantly across work sectors ($p < 0.001$) but not across regions of Canada. Worksites with EAPs had significantly ($p < 0.001$) fewer visible minorities and had more unionized employees ($p < 0.001$) than worksites without EAPs. For drug-testing programs, about 10.3% of Canadian worksites have them (95% CI: 7.8%-12.8%). Significant differences were noted across regions ($p < 0.001$) with Alberta most likely to have such programs (25.4%) and Ontario least likely (4.6%). Also, safety-sensitive worksites and those with United States ownership were significantly ($p < 0.05$) more likely to have drug testing. The most common type of HPP was fitness programs (29.4%) and the least common was day/elder care programs (5.5%). Fitness programs were most common in the Eastern provinces and least common in Quebec.

Conclusions: Overall, Canadian worksites favour a health promotion and treatment approach over a deterrence approach for addressing health and substance use issues in the workplace. Workplace health programs were related to several factors that have created an uneven system of health promotion, treatment and deterrence in Canadian worksites.

MeSH terms: Substance abuse detection; Employee Assistance programs; health promotion; baseline survey; worksite

La traduction du résumé se trouve à la fin de l'article.

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Three broad kinds of programs have been adopted in Canadian workplaces to address employee health issues, including substance abuse problems: Employee Assistance Programs (EAPs), Drug-testing Programs and Health Promotion Programs (HPPs). EAPs are workplace programs where employees with alcohol, drug, or other personal, behavioural or family problems can receive short-term counselling. Evaluations of EAPs showed a variety of benefits of early programs (i.e., those that were alcohol only with supervisory referrals) in terms of reduced absenteeism, job accidents and medical costs.¹ Evaluations of the modern-day Canadian EAPs show that most EAP clients are satisfied with the helpfulness of the counsellors,^{2,3} but the impact of these interventions on tangible work outcomes is not conclusive.^{1,2} Drug-testing programs aim to identify drug users by chemically analyzing the bodily fluids (typically urine) of employees for metabolites of certain psychoactive drugs, such as cannabis or cocaine. A limitation of urine tests is that they detect prior use of drugs rather than current impairment.⁴ Existing studies have methodological limitations and have not convincingly demonstrated that drug testing significantly reduces job accidents.^{4,5} Workplace HPPs typically offer educational, organizational, or behavioural interventions designed to support positive health maintenance behaviours that are conducive to the well-being of all employees in a worksite. They can include a variety of specific programs such as fitness activities, stress management, dissemination of health-promoting information, assistance with healthy lifestyles and provision of supervised day care. Recent reviews of the literature indicate they are related to improved health and work performance³ and to lower levels of absenteeism and health care costs.⁶ Underlying each type of program is a different rationale for addressing drug and alcohol use in the workplace. HPPs address health promotion and prevention, EAPs emphasize early intervention and treatment, and drug-testing programs emphasize deterrence (detection and coercive interventions for drug users).

The types of workplace programs that organizations adopt inform us about public health issues in several ways. First, they help us understand whether the emphasis of work institutions toward employee

health issues is on prevention, treatment or deterrence. Second, they help us understand the role of the private sector in health care. Governmental health care tends to focus on curing disease rather than health promotion and disease prevention.⁷ The extent to which Canadian workplaces have health promotion and treatment programs may positively impact direct treatment costs. Finally, factors related to the establishment of these programs help us understand the disparities that may occur.

Little is known about the prevalence and factors related to these workplace health programs in Canada, their distribution across geographic regions and the characteristics of worksites that adopt them. The last Canadian representative survey was conducted in 1993 and included only Ontario worksites with 50 or more employees.⁸ In that study, 32% of worksites had EAPs and 4% had drug-testing programs. Growth has occurred in these programs from 1989, when a prior Ontario survey was conducted.⁹ The purpose of this paper is to provide a nationally representative snapshot of the extent and characteristics of these programs across Canada in worksites with 100 or more employees.

METHODS

Sample

The sampling frame was obtained from D & B of Canada, an international marketing firm, who provided a comprehensive list of *all* worksites in Canada with 100 or more employees. The D & B data base contains 1.25 million businesses and is updated on a daily basis to ensure 90% accuracy at any time.¹⁰ A systematic sample of 5% of these worksites was drawn (960 worksites) from the population list, which was organized within work sectors and provinces, producing a representative Canadian sample. This sample size was calculated to provide point estimates within an error of five percentage points, and to allow comparisons among various groups. Of the 960 worksites, follow-up calls indicated that 145 had downsized to less than 100 employees, and 107 were out of business or could not be contacted for other reasons. For the remaining 708 worksites, 565 (response rate of 79.8%) provided information on

TABLE I

Distribution of Sample by Region, Worksite and Size (rank ordered)

	Worksite Participants n (%)
Geographic Region	
Ontario	218 (38.6)
Quebec	145 (25.7)
British Columbia and Yukon Territory	67 (11.9)
Alberta	63 (11.2)
Saskatchewan, Manitoba, Northwest Territory, and Nunavut	40 (7.1)
Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador	32 (5.7)
Work Sector	
Manufacturing	165 (29.2)
Services	101 (17.9)
Health and education services	90 (15.9)
Retail trade	33 (5.8)
Wholesale trade	41 (7.3)
Transportation, Communication, Utilities	37 (6.5)
Government	46 (8.1)
Finance, Insurance, Real estate	25 (4.4)
Primary resources	17 (3.0)
Construction	10 (1.8)
Number of Employees	
100-499	260 (54.1)
500-1999	115 (23.9)
2000 or more	106 (22.0)

TABLE II

Breakdown of Canadian Worksites with EAPs (rank ordered)

Work Sector	n (%)	95% Confidence Interval	
		Lower	Upper
Government	40 (87.0)	77.3	96.7
Health/Education	73 (81.1)	73.0	89.2
Financial institutions/Insurance/Real estate	18 (72.0)	54.4	89.6
Manufacturing	113 (68.5)	61.4	75.6
Primary resources	11 (64.7)	42.0	87.4
Wholesale trade	26 (63.4)	48.7	78.1
Transportation/Communications/Utilities	23 (62.2)	46.6	77.8
Services	61 (60.4)	50.9	69.9
Retail trade	16 (48.5)	31.4	65.6
Construction	2 (20.0)	0.0	45.0
Total	383 (67.8)	63.9	71.7

Chi square = 34.83; $p < 0.001$.

TABLE III

Breakdown of Canadian Worksites with EAPs According to Their Structural Characteristics

Structural Components of EAPs	n (%)	95% Confidence Interval	
		Lower	Upper
Structure of EAP			
Formal written policy and procedure	232 (76.1)	71.3	80.9
Active EAP Committee	85 (28.1)	23.0	33.2
Provides training to supervisors to detect problems	158 (52.8)	47.1	58.5
Family members permitted to use EAP	262 (85.9)	82.0	89.8
Type of Referral Routes			
Voluntary – self referral	301 (97.1)	95.2	99.0
Voluntary – union suggested	135 (43.5)	38.0	49.0
Voluntary – management suggested	243 (78.4)	73.8	83.0
Formal (mandatory-management initiated)	96 (31.1)	25.9	36.3
Type of Treatment Services Utilized			
Internal services	59 (19.3)	14.9	23.7
Public community service agencies	75 (24.6)	19.8	29.4
Private EAP contracted	264 (86.8)	83.0	90.6

whether they had any of the three types of programs.

Data sources

A modified questionnaire, adapted from similar surveys conducted in Ontario, was used.^{8,9} The questionnaire was pilot tested with Human Resource (HR) managers to

ensure the validity of the information given. Definitions of EAPs, drug-testing programs and HPPs as provided in the introductory paragraph of this paper were included. Also, a pre-test and post-test reliability assessment (separated by a year) was conducted for the three major types of programs with 20 HR managers. We found

TABLE IV
Factors Related to Employee Assistance Programs (Continuous Variables)

Variable	EAP	Mean (n)	T-test Significance
Number of employees at worksite	Yes	601.0 (355)	<0.0001*
	No	211.5 (149)	
Percent of unionized	Yes	51.3 (294)	<0.001
	No	35.5 (118)	
Percent of employees visible minorities	Yes	13.0 (210)	<0.001*
	No	24.0	

* unequal variance estimate

Variables not significant based on chi-square tests were geographic region, location of head office and drug-testing programs. Variables not significant based on t-tests were number of employees in Canada, percent of Goods & Services delivered to US, percent of employees who are women, percent of employees under 30 years, percent of employees over 55 years, and perceived percent of employees with alcohol and drug problems.

TABLE V
Breakdown of Drug-testing Programs by Regions (rank ordered)

Province	n (%)	95% Confidence Interval	
		Lower	Upper
Alberta	16 (25.4)	14.7	36.1
British Columbia and Yukon Territory	12 (17.9)	8.7	27.1
Saskatchewan, Manitoba, Northwest Territory, and Nunavut	4 (10.0)	0.7	19.3
Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador	3 (9.4)	0.0	19.5
Quebec	13 (9.0)	4.3	13.7
Ontario	10 (4.6)	1.8	7.4
Overall Total	58 (10.3)	7.8	12.8

Chi square = 27.837, $p < 0.001$

TABLE VI
Percentage Breakdown of Drug-testing Programs Within Work Sector (rank ordered)

Work Sector	Drug Testing n (%)
Primary resources	7 (41.2)
Transportation/Communication/Utilities	15 (40.5)
Construction	4 (40.0)
Wholesale trade	4 (9.8)
Manufacturing	16 (9.7)
Services	6 (5.9)
Retail trade	2 (6.1)
Government	2 (4.3)
Health/Education	2 (2.2)
Financial institutions/Insurance/Real estate	0 (0.0)
Overall Total	58 (10.3)

Note: Drug-testing programs, Chi square = 77.730, $p < 0.000001$

100% agreement for all questions, except in circumstances where new programs were initiated or old programs dropped.

Procedures

HR managers were sent a covering letter explaining the study, a copy of the questionnaire, and a stamped, self-addressed, return envelope. In order to ensure a high response rate, two sets of follow-up telephone calls and a follow-up letter with a second questionnaire were made to non-respondents. Telephone interviews were conducted when the recipients indicated they preferred this method. Prior studies showed that the use of both self-administered questionnaires and telephone interviews

increases the validity of the results.¹¹ The ethics committees from the University of Alberta, the University of Western Ontario and the University of Montreal approved the data collection procedures.

RESULTS

Table I shows the characteristics of the sampled worksites. Since the sample is representative, most of the worksites were from the largest provinces (i.e., Ontario and Quebec) and manufacturing worksites were most common.

Table II shows the number and percentage of Canadian worksites with EAPs, rank ordered by 10 major work sectors. Overall,

67.8% of worksites had EAPs (95% CI: 63.9%-71.7%). The percentage of worksites with EAPs varied significantly across the work sectors ($p < 0.001$), with governmental agencies most likely to have these programs (87.0%), and retail trade (48.5%) and construction (20.0%) least likely. For worksites with EAPs, the structural characteristics of the EAPs are shown in Table III. Interestingly, only 28.1% of these worksites have active EAP committees and slightly over half (52.8%) provide training for supervisors to detect symptoms of problems, such as alcohol abuse among employees. Only 31.1% of worksites had formal mandatory mechanisms for treatment, and nearly all worksites (97.1%) permitted voluntary referrals. Most worksites (86.8%) utilized private EAP contracted services.

Chi-square tests (for categorical variables) and t-tests (for continuous variables) were conducted to assess various factors related to EAPs and drug-testing programs. Table IV summarizes the results for variables related to EAPs. Worksites with EAPs were significantly more likely to have more employees, and greater percentages of unionized employees and fewer visible minorities. Non-significant variables are listed in Table IV.

Table V shows the distribution of worksites with drug-testing programs across Canadian regions. Overall, 10.3% indicated they have drug-testing programs (95% CI: 7.8%-12.8%). The proportion of worksites with drug-testing programs varied significantly across the regions of Canada ($p < 0.001$). The western provinces of Alberta (25.4%) and British Columbia (17.9%) were most likely to have drug testing whereas Ontario was least likely (4.6%). Among those with drug testing, pre-employment (78%), reasonable suspicion, and random testing (48%) were the most common types, and job transfer (7%), periodic (13%), and return from rehabilitation (15%) were the least common types of programs.

Table VI shows a significant association between work sector type and drug-testing programs ($p < 0.000001$). Approximately 40% of worksites in transportation/communications, construction or primary resource work sectors had drug-testing programs, whereas no worksites in finance, insurance or real estate had programs.

Tables VII and VIII show the other worksites' characteristics related to drug-testing programs. Factors related to the existence of drug-testing programs included: United States (US) and foreign head office, a greater percent of male employees, and a greater percent of employees over the age of 30.

The distribution of Canadian worksites with various types of HPPs is presented in Table V. Fitness programs for employees were available at 29.4% of the worksites. No significant associations were found between fitness programs and work sectors or whether the head office was Canadian or foreign. However, fitness programs were significantly more likely to be found in some regions of Canada than others ($p < 0.01$). In the Maritime provinces, 45.8% of worksites had fitness programs, whereas only 16.8% had such programs in Quebec.

CONCLUSIONS

This study provides a good snapshot of the types of workplace health programs in Canadian worksites. Although we found a larger percent of all types of workplace programs in this survey compared to earlier ones, earlier surveys included smaller worksites, which are less likely to have these programs and were restricted to Ontario only.^{8,9} Therefore direct statements regarding trends cannot be drawn. To our knowledge, this is the only Canada-wide survey of workplan programs that has been conducted.

In this survey, we could not adequately assess the quality of the programs and we do not know how these services compare to those publicly funded. Private EAPs generally have a much shorter waiting time for employees to meet with a counsellor than with public providers but often have restrictions, such as a cap on the number of sessions for employees. Such cost reduction measures could reduce program effectiveness.

EAPs are under-represented in retail trade and construction industries. Generally, the wages and benefits for retail trade workers are less than for other work sectors, which might explain the lower percentage EAPs in this work sector. In the construction work sector, many employees are hired on contract, which might explain

TABLE VII

Factors Related to Drug-testing Programs (Categorical Variables)

Variable	EAP	Mean (n)	T-test Significance
Canadian Head Office	Yes	45 (9.2)	<0.05
	No	13 (17.3)	
US Head Office	Yes	12 (18.2)	<0.05
	No	46 (9.2)	

TABLE VIII

Factors Related to Drug-testing Programs (Continuous Variables)

Variable	Drug-testing Program	Mean (n)	T-test Significance
Percent of Employees Women	Yes	78.6 (29)	<0.000001*
	No	52.3 (337)	
Over 30 years of age	Yes	79.8 (27)	<0.05
	No	70.9 (310)	

* unequal variance estimate

Variables not significant were number of employees in Canada and at worksite, percent unionized, percent of employees over 55 years, percent of employees who are visible minorities, and perceived percent of employees with alcohol or drug problems.

TABLE IX

Distribution of Canadian Worksites with Health Promotion Programs (Rank ordered)

Type of Programs	n (%)	95% Confidence Interval	
		Lower	Upper
Fitness	166 (29.4)	25.6	33.2
Disability management	139 (24.6)	21.0	28.2
Smoking cessation	129 (22.8)	19.3	26.3
Stress management	121 (21.4)	18.0	24.8
Financial planning	110 (19.5)	16.2	22.8
Nutrition counselling	90 (15.9)	12.9	18.9
Weight reduction	87 (15.4)	12.4	18.4
Blood pressure clinic	86 (15.2)	12.2	18.2
Day care services	31 (5.5)	3.6	7.4
Elder care services	31 (5.5)	3.6	7.4

their low likelihood of EAPs. The finding that EAPs are significantly more likely to be found in unionized environments has been previously reported;⁸ however, the significantly few minorities at worksites with EAPs has not been previously reported. These findings suggest that EAPs are primarily an employee benefit for the more privileged employees. The finding that EAPs were not related to perceived alcohol and drug problems is difficult to interpret. It is possible that substance use problems were worse at these worksites or alternatively, other factors were more important in the establishment of EAPs.

The uneven distribution of drug-testing programs across regions of the country suggests wide divergence of opinion among employers about the utility of these programs. The ideological nature of drug testing also is illustrated by the finding that foreign-owned companies were significantly more likely to have these programs than Canadian-owned companies. The significantly greater proportions of older males in companies with drug testing is likely a reflection of the demographics of employees at safety-sensitive worksites. The fact

that the companies in the safety-sensitive sectors were most likely to report having drug-testing programs suggests that motives for drug testing in Canada are mostly linked to safety concerns, rather than part of a more general "war on drugs" that is prevalent in the United States. These motives exist, despite the lack of credible scientific evidence that urine tests improve workplace safety.^{4,5}

The present findings that a small proportion of worksites have childcare facilities (5.5%) suggests that the needs of most working parents are not being met through the workplace. This result is consistent with findings from a report by the Organization for Economic Co-operation and Development that indicates day care is only available for less than 20% of Canadian children under six with working parents.¹² The reasons for the significantly lower percent of worksites in Quebec with fitness programs is unknown.

EAPs and HPPs are much more common than drug-testing programs. On the whole, Canadian worksites are placing a considerable emphasis on health promotion, prevention, early identification/treat-

ment, and less emphasis on deterrent type programs. This study adds to the ongoing dilemma in Canadian society with respect to the role of the private sector in health promotion, disease prevention and mental health. Although efforts of business may help alleviate the direct treatment burden of diseases, these programs are unevenly distributed across Canadian worksites and segments of society. With the continuing debate on privatization of health care, these findings add another layer of complexity toward determining the optimal role of the private sector in health care.

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RÉSUMÉ

Contexte : Dans cette étude, nous documentons la prévalence des programmes de santé en milieu de travail au Canada – les programmes d'aide aux employés (PAE), les programmes de dépistage des drogues et les programmes de promotion de la santé (PPS) – ainsi que leurs facteurs connexes.

Méthode : Nous avons demandé à un échantillon représentatif de 565 gestionnaires des ressources humaines travaillant pour des organismes de 100 employés ou plus, un peu partout au Canada, de remplir un questionnaire sur les caractéristiques de leur lieu de travail et sur les types de programmes en vigueur. Nous avons obtenu un taux de réponse de 79,8 %.

Résultats : Des PAE étaient en place dans 67,8 % des lieux de travail de notre échantillon (IC de 95 % = 63,9-71,7). La proportion des lieux de travail ayant un PAE variait de façon significative d'un secteur professionnel à l'autre ($p < 0,001$), mais non d'une région à l'autre du Canada. Les minorités visibles étaient significativement moins nombreuses dans les lieux de travail ayant un PAE ($p < 0,001$), et les employés syndiqués y étaient significativement plus nombreux ($p < 0,001$) que dans les lieux de travail sans PAE. Environ 10,3 % des lieux de travail canadiens avaient un programme de dépistage des drogues (IC de 95 % = 7,8-12,8). Nous avons aussi observé des écarts significatifs d'une région à l'autre ($p < 0,001$), l'Alberta étant la province la plus susceptible d'avoir de tels programmes (25,4 %), et l'Ontario, la province la moins susceptible d'en avoir (4,6 %). Par ailleurs, les organismes préoccupés par la sécurité et les entreprises appartenant à des intérêts états-uniens étaient significativement plus susceptibles ($p < 0,05$) d'avoir des programmes de dépistage des drogues. Les PPS les plus répandus étaient les programmes de conditionnement physique (29,4 %), et les moins répandus, les programmes de garderie ou de soins aux aînés (5,5 %). Les programmes de conditionnement physique étaient proportionnellement plus nombreux dans les provinces de l'Est et moins nombreux au Québec.

Conclusions : Dans l'ensemble, au Canada, on préfère une approche de promotion de la santé et de soins à une approche dissuasive lorsqu'il s'agit de résoudre des problèmes de santé et de consommation d'alcool ou de drogues en milieu de travail. Par ailleurs, les programmes de santé en milieu de travail sont liés à plusieurs facteurs qui produisent des inégalités dans l'organisation de la promotion de la santé, des soins et de la dissuasion sur les lieux de travail au Canada.

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