

Promoting tobacco cessation via the workplace: opportunities for improvement

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ABSTRACT

Introduction Little research exists on the prevalence of evidence-based tobacco cessation practices in workplaces, employer promotion of state-sponsored quitlines and predictors of these practices.

Methods Cross-sectional analysis of the 2008 Healthy Worksite Survey, a telephone survey administered to Washington employers with 50 or more employees (n=693). The objectives were to describe workplaces' implementation of evidence-based tobacco cessation practices and identify key predictors of implementation in order to highlight opportunities for interventions.

Results Among these employers, 38.6% promoted quitting tobacco, and 33.8% offered insurance coverage for cessation medications and counselling, 27.5% referred no-smoking violators to cessation services, and 5.7% included the state-sponsored quitline in health promotion messages. Larger workplaces and workplaces with a wellness staff, committee or coordinator had greater insurance coverage for tobacco cessation, communications promoting tobacco cessation, and promotion of the state-sponsored quitline (p<0.01). Workplaces with a wellness staff, committee or coordinator referred more violators of no-smoking policies to cessation services (p<0.01).

Conclusions In Washington State workplaces do little to promote tobacco cessation by their employees. The lack of tobacco cessation promoting practices at small businesses, restaurants and bars, and businesses without wellness personnel indicates an opportunity for finding and reaching current smokers at businesses with limited resources. By adopting inexpensive prevention efforts, such as promoting the state-sponsored tobacco cessation quitline, employers can help employees quit smoking and, thereby, assist in improving employee health and lower medical costs.

INTRODUCTION

Smoking is a leading cause of death in the USA and also the cause of major chronic diseases.^{1 2} In Washington State from 2000 to 2004, tobacco smoking led to an annual average of 7600 deaths and \$1.94 billion in healthcare costs.^{3 4}

The workplace can be an ideal channel for tobacco cessation interventions because of its existing infrastructure, potential for social support and access to the adult population.^{5 6} Effective tobacco cessation interventions for helping employees quit smoking include counselling, prescription medication and nicotine replacement therapy.^{7-10 11} State departments of health often offer telephone counselling quitlines, some providing free nicotine replacement therapy to

uninsured or low-income callers.¹² The Washington State quitline provides such counselling and information about cessation medications.¹³ Additionally, smoke-free workplaces reduce cigarette consumption and increase cessation.¹⁴ The workplace provides access to a majority of Washington State smokers.¹⁵

Employers benefit from implementing effective tobacco cessation interventions by creating a healthier workforce and reducing healthcare expenses and absenteeism.^{16 17} Despite the potential benefits, most employers do not offer smoking cessation programmes or full insurance coverage for tobacco cessation treatment.^{18 19} We are not aware of research reporting employers' promotion of state-sponsored quitlines. This paper reports the results of a Healthy Worksite Survey and describes evidence-based workplace tobacco cessation practices, identifies key predictors of these practices and highlights opportunities for improvement.

METHODS

Design

We performed a cross-sectional study using data from the 2008 Healthy Worksite Survey. The Healthy Worksite Survey is a state-level assessment of tobacco and wellness-related policies and environments in Washington State worksites. Trained interviewers from a contracted firm administered the telephone surveys to human resources managers or personnel directors using computer-assisted software (Interviewer CATI, Voxco, Montreal, Quebec, Canada).

Sample

Washington State Department of Health implemented the survey with a random sample of 2113 employers stratified by region (rural and urban) from a list of 8520 Washington employers with 50 or more employees (full-time or part-time). Based on previous experience, we aimed for a 50% response rate. We drew a large enough original sample to allow for approximately 60% ineligible or non-response and still achieve the desired completes for valid robust analysis at 95% confidence level. Of the random sample, 600 were ineligible, 600 were not reached (eligibility unknown), 118 refused participation and 22 terminated before the midpoint. Worksites were ineligible if any of the following were true: (1) there were fewer than 50 employees at the site; (2) the phone number was wrong, disconnected or a fax number; or (3) if the company was no longer in business. A total of 773 employers completed surveys (defined as completing half or

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Table 1 Tobacco cessation policies, by workplace characteristic, among Washington State employers with 50 or more employees in 2008*

Characteristic	% of respondents									
	No	Any promotions to help quit tobacco	95% CI	Insurance coverage for cessation medications and counselling	95% CI	Refer no-smoking violators to cessation services	95% CI	State-sponsored quitline in health promotion message	95% CI	
All	693	38.6	34.3 to 43.1	33.8	29.6 to 38.2	27.5	23.7 to 31.8	5.7	3.9 to 8.2	
Workplace size										
50–99	297	30.4	24.5 to 37.0	24.7	19.2 to 31.1	26.4	20.8 to 33.0	1.9	0.8 to 4.4	
100–199	198	38.0	30.5 to 46.2	38.0	30.4 to 46.2	22.1	16.1 to 29.6	5.3	2.6 to 10.3	
200–499	118	47.5	36.3 to 59.0	39.0	28.4 to 50.6	30.4	20.9 to 42.0	10.8	5.3 to 20.8	
500+	80	62.0	47.9 to 74.3	51.8	38.1 to 65.3	44.5	31.3 to 58.5	15.7	7.9 to 28.8	
Proportion of workers w/Ins										
<75%	266	32.5	26.1 to 39.6	33.1	26.6 to 40.2	24.6	18.9 to 31.4	4.8	2.5 to 9.0	
75% or more	427	42.6	37.0 to 48.4	34.2	29.0 to 39.9	29.5	24.5 to 35.1	6.3	4.0 to 9.7	
Workplace setting										
Hospital/healthcare facility	123	55.2	43.8 to 66.0	38.7	28.4 to 50.2	39.4	29.0 to 50.9	12.3	6.6 to 21.5	
Office	181	41.0	32.7 to 49.9	41.9	33.5 to 50.9	25.5	18.6 to 33.9	5.9	0.8 to 11.9	
Other (casino, retirement facility, hospitality, other)	146	34.4	25.6 to 44.4	31.9	23.4 to 41.8	23.1	15.7 to 32.6	3.0	1.0 to 8.7	
Restaurant/bar/lounge	30	4.6	0.8 to 22.9	12.4	0.4 to 32.0	16.5	6.4 to 36.5	0	N/A	
Store	71	35.6	24.4 to 48.7	39.7	33.5 to 50.9	25.1	15.7 to 37.7	4.1	1.1 to 14.0	
Warehouse/factory	142	38.5	29.1 to 48.8	23.2	15.7 to 32.8	30.5	21.8 to 40.8	5.6	2.3 to 12.8	
Presence of wellness staff, committee or coordinator										
Yes	377	54.6	48.4 to 60.7	42.6	36.6 to 48.8	40.7	34.7 to 46.8	8.7	5.8 to 12.9	
No	316	19.8	15.0 to 25.6	23.4	18.2 to 29.6	12.1	8.4 to 17.2	2.1	0.9 to 4.9	

*Significant ORs are reported in the text.

more of the survey items) for a CASRO response rate (takes eligibility likelihood into account) of 58%.^{i 20} Additionally, 80, or approximately 10%, of the 773 participating employers, were separate locations but part of the same larger company as other survey participants. To account for these quasi-duplicates, we combined and calculated a weighted average response from these participants so that only one response per company was used for calculating the results. Therefore, our final sample size was 693.

Measures and analysis

We computed weights based on the sampling design and subsequent likelihood of response within strata. We computed final weights for each stratum by dividing the number of employers in the target population by the number of employers that responded to the survey. The University of Washington Institutional Review Board exempted this study from review.

We characterised the sample by four workplace characteristics: (1) size, (2) insurance, (3) setting, and (4) presence of wellness staff (either paid or volunteer) (see table 1). Our dependent variables were four self-reported measures of evidence-based workplace tobacco cessation practices (see table 1).^{7 8 14} Also, we didn't expect much variation among employers in smoke-free policies because of Initiative I-901,

passed in 2005. This law banned smoking in workplaces and within 25 feet of building doors and windows.²¹

First, we calculated the proportion of workplaces with certain tobacco cessation practices in place, and 95% CIs. Second, using multivariate logistic regression analysis, we assessed the independent effects of the four-workplace characteristics on each cessation practice. We performed weighted analyses using Stata version 9.0 (StataCorp LP, College Station, Texas, USA).

RESULTS

We found that 61.6% of these employers offered health insurance to 75% or more of their employees; 54.4% had a wellness staff, committee or coordinator; 38.6% promoted quitting tobacco; 33.8% offered insurance coverage for cessation medications and counselling; 27.5% referred no-smoking violators to cessation services; and 5.7% included the state-sponsored quitline in health promotion messages (see table 1). Fewer than 25% of the employers promoting quitting tobacco offered tobacco cessation classes or support groups; rather, they used print messages such as newsletters, flyers and posters. Table 1 also shows the rates and CIs for the cessation practices stratified by all of the workplace variables. Presence of a wellness staff, committee, or coordinator predicted having all four of the tobacco cessation practices ($p<0.01$). ORs (OR, not shown in table) ranged from 2.13 for insurance coverage for tobacco cessation medications and counselling to 5.07 for referring violators to cessation services. Employers with more employees had more tobacco cessation practices ($p<0.01$). Restaurants, bars and lounges had few tobacco cessation practices in place ($p<0.01$); warehouses/factories and hospitals/healthcare facilities were more likely to refer violators to tobacco cessation services (OR=2.16 and OR=2.21, respectively).

ⁱUsing a CASRO (Council of American Survey Research Organizations) methodology, we estimated the proportion likely to be eligible by dividing known eligible respondents by the total with unknown eligible respondents removed (1513/2113=72%). Therefore, we considered 72% of the 600 with eligibility unknown as 'likely eligible' (n=430). We calculated response rate for Time 3 with the following formula: completed surveys / (completed (773)+total refusals (140) + likely eligible (430))=58%.

What this paper adds

- ▶ Numerous studies show that effective tobacco cessation interventions in workplaces can improve workforce health and reduce healthcare expenses and absenteeism. Often these interventions are costly and until now there has been no research reporting employers' promotion of state-sponsored quitlines, which are inexpensive, and sometimes free, interventions.
- ▶ This cross-sectional study suggests that in Washington State, workplaces do little to promote tobacco cessation by their employees. The lack of tobacco cessation-promoting practices in small businesses indicates an opportunity for finding and reaching current smokers at businesses with limited resources. By adopting inexpensive prevention efforts, such as promoting the state-sponsored tobacco cessation quitline, employers can help employees quit smoking and, thereby, assist in improving worker population health and controlling healthcare costs.

DISCUSSION

Our study provides estimates of a variety of tobacco cessation practices implemented by Washington employers with 50 or more employees. We found that few employers link smokers to evidence-based, cost-effective tobacco cessation practices, even though these practices often help employees quit smoking, improve worker population health and help control healthcare costs.

Our finding that less than 6% of employers promoted the state-sponsored quitline indicates a large opportunity for employers seeking improvements in employee health and healthcare costs. While Washington State has held general awareness media campaigns, we are not aware of employer-focused quitline promotion.¹³ Promoting the quitline is an ideal step for small employers; these businesses employ the majority of US adults yet, as we found, have fewer tobacco cessation practices than large employers.²² Another target group for promoting state-sponsored quitlines is restaurants, bars and lounges that employ more than 10% of the US workforce.²¹ None of the 30 restaurant/bar/lounge employers who participated in our study promoted the state quitline. Another reason for focusing on small employers and restaurants/bars/lounge employers is these businesses' high percentage of employees of lower socioeconomic status, a characteristic associated with higher smoking rates.^{22–24}

Along with promoting state-sponsored quitlines, employers can employ additional interventions to help smokers quit. The Centers for Disease Control and Prevention's *Guide to Community Preventive Services* offers several relevant recommendations to guide employers.²⁵ Also, as our study shows, having personnel focused on wellness may be a step towards enacting tobacco cessation practices.

Limitations

Limitations of the study include the use of self-reported data and the response rate of 58%. However, the response rate is comparable to, or in some cases better than, other employer surveys.^{19 26} Also, employers participated voluntarily and, thus, may already be more interested in health promotion than peer companies that did not participate. Additionally, the survey did not include worksites with fewer than 50 workers. These limitations lower generalisability, yet also suggest that tobacco

cessation practices may be even less prevalent in workplaces than those reported here, making these rates conservative. An additional limitation is that categorising employers by proportion of workers with insurance may have not captured some employers, such as those using larger proportions of seasonal or part-time labour, or with other workers who may be likely to be covered by their spouses' insurance.

Another limitation is that we drew our sample from only one region of the country. However, these data, particularly about promoting state quitlines at worksites, are unavailable elsewhere and, thus, an important starting point for understanding cessation opportunities. Furthermore, this Washington study sample is similar to a sample of US employers with 50 or more employees—the slight majority of employers have a wellness staff, committee or coordinator (54% in WA, 65% in USA) and about one-fifth of employers conduct health risk appraisals (21% in WA, 19% in USA)—suggesting that our results may be generalisable beyond Washington State.¹⁹ Additionally, in the 2010 Kaiser/HRET Employer Health Benefits Survey, 19% of the employers in the west reported offering smoking cessation programmes—a similar proportion to the 24% that reported offering such programmes nationwide.²⁶ We also acknowledge that the incentives and context for workplace wellness may be different in the USA than in other countries.

Conclusions

Employers currently do relatively little to promote tobacco cessation among their employees; even the free state quitline is promoted by only 6% of Washington State employers. Replication of this study's results using a larger, more nationally representative sample would help identify opportunities to improve tobacco cessation practices in workplaces nationwide. Additionally, researchers and employers should examine these practices over the next several years, as insurance coverage changes because of provisions in the Patient Protection and Affordable Care Act passed into law in 2010.²⁷

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Competing interests None.

Ethics approval The University of Washington Institutional Review Board exempted this study from review.

Contributors All of the authors have made substantial contributions to (a) either conception and design or else analysis and interpretation of data and to (b) drafting the article or revising it critically for important intellectual content and on (c) final approval of the version to be published and agree to its submission. There is no conflict of interest.

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