Opportunities to Improve Tobacco Control for State Agency Employees

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Abstract

Objective: To explore tobacco-related knowledge and perceptions at Washington State (WA) agencies.

Methods: Cross-sectional employee survey and qualitative focus groups with managers/supervisors. We produced descriptive statistics to examine differences in awareness and perceptions of tobacco-control efforts among employees and conducted a rapid thematic analysis of focus group data.

Results: Of employees, only 18% with a history of tobacco use had utilized their agency's cessation benefits. Employees who did not use tobacco and who had higher education had more favorable attitudes toward tobacco-control efforts. In the focus groups, manager/supervisors described limited tobacco cessation promotion at their agency, barriers to tobacco control implementation, and concerns about the perceived effectiveness of additional tobacco-control efforts.

Conclusions: States agencies should increase promotion of tobacco control policies and programs to increase awareness and reduce disparities in tobacco use.

Keywords

workplace; tobacco; focus groups; health promotion; occupational health; policy making; public health practice; smoking

Introduction

Nineteen percent of adults in the U.S. use one or more commercial tobacco products.[1] In Washington State (WA), 11% of adults smoke cigarettes and 7% use e-cigarettes.[2] Disparities in tobacco use exist by socioeconomic status (SES), worksite industry, and

occupation.[3] In WA, rates of current smoking among adults with less than a high school education (21%) are more than five times higher than for adults with a college degree (4%).[2]

Sixty percent of the U.S. civilian population is currently employed.[4] Implementing evidence-based interventions (EBIs) for tobacco control at the worksite offers opportunity to reach diverse populations over an extended period. EBIs include tobacco-free policies, offering and promoting tobacco treatment medications through employer-sponsored healthcare plans, and promoting strategies such as quitline and mobile phone text messaging cessation programs.[5] These interventions can increase motivation to quit and triple cessation success.[6]

In October 2013, WA passed Executive Order (EO) 13-06: *Improving the Health and Productivity of State Employees and Access to Healthy Foods in State Facilities*.[7] Updates to EO 13-06 have been proposed, including but not limited to: state-agency collaboration with the state's wellness initiative to promote tobacco-cessation benefits, annual training and a resource toolkit for state-agency wellness coordinators, having state agencies designate and maintain a tobacco-free ambassador, and prohibiting use of all commercial tobacco products within state-owned, leased and/or operated facilities and vehicles.

We partnered with the WA Department of Health (WA DOH) to explore perceived tobacco-related norms and attitudes among WA employees, managers, and supervisors, including their attitudes toward proposed EO changes. With notable exceptions,[8] limited research on tobacco control among this population of working adults exists. State governments nationwide have more than 4.5 million employees[9] and are among the largest employers in the U.S. State employees come from a wide range of occupation groups; examples include construction and extraction, healthcare support, protective service (e.g., correctional officers), and management.[10] EBIs implemented within state agencies have the potential to reach a large population of adults and their families, as well as reduce disparities in tobacco use and access to cessation assistance.

Methods

We conducted a multi-methods study that consisted of a cross-sectional, online survey among employees and 90-minute, virtual focus groups with managers and supervisors. We conducted focus groups with managers/supervisors given the important role they play in tobacco control implementation. Since the findings from this project will help inform state-level policy and program changes, we wanted to receive in-depth information from managers/supervisors on potential barriers to implementation. Because the project was a public health surveillance activity supported through WA DOH, it did not require institutional review board oversight. This study adhered to STROBE Guidelines (see Supplementary Digital Content).

Employee Survey

Design and Sample Population

We invited seven state agencies to participate in the survey. Given disparities in tobacco use by socioeconomic status, we prioritized recruitment of agencies with a higher percentage of workers receiving low wages and that had a higher prevalence of employee tobacco use. Agencies that experienced past challenges with tobacco control implementation and that expressed interest in survey participation were also recruited. Individuals aged 18+ years working for one of the seven agencies, including managers/supervisors, were eligible to participate in the survey.

Recruitment and Data Collection

In May 2021, we sent an e-mail about the project to contacts (e.g., wellness coordinators) identified by a partner agency, requesting that they disseminate the survey to all of their employees. Most agencies contacted employees via an agency-wide listserv. Our team did not directly contact employees about the survey. The first page of the survey included information about the project and questions on state-agency affiliation and age to determine eligibility. Because state employees are unable to accept incentives, we did not offer any for participation. We collected survey data from May 11, 2021, to July 30, 2021.

Measures

Tobacco Use.—We asked employees to report whether they had used commercial tobacco products within the past 30 days. We defined commercial tobacco as any product containing or derived from tobacco and/or nicotine, including e-cigarettes and noted that this definition excluded FDA-approved nicotine replacement therapies and tobacco used by some American Indian tribes as a sacred medicine and in ceremony. Employees who used tobacco products in the past 30 days were asked to indicate what products they used, and whether they intended to quit using tobacco products within the next six months. For our primary analysis, we classified employees as 1=currently using tobacco and intended to quit within six months, 2=currently using tobacco but did not intend to quit within six months or was not sure, 3=having formerly used tobacco, or 4=having never used tobacco.

Awareness and Benefits Participation.—All state agencies represented in our study had a policy restricting tobacco use and offered health insurance benefits for cessation. We assessed awareness by asking employees to indicate whether their agency had a tobacco policy and whether their agency offered cessation benefits (1=yes; 2=no; 3=not sure). To assess benefits participation, we asked respondents with a history of tobacco use who indicated awareness of their agency's benefits to report whether they had used the benefits to help them quit tobacco (1=yes vs. 0=no).

Perceived Norms.—We used prior studies[11,12] to inform the development of measures to assess tobacco-related norms at the agency. Example items included "Many others in my agency use commercial tobacco products" and "My agency prioritizes programs that help employees quit using commercial tobacco products." We measured items on a 5-point Likert

scale (1=strongly disagree to 5=strongly agree). We created a binary indicator for each statement (1=strongly agree/agree vs. 0=neutral/disagree/strongly disagree) for analysis.

Attitudes toward Proposed Changes.—We assessed tobacco-related attitudes based on proposed updates to EO 13-06. Example items included "Commercial tobacco use should be completely prohibited on all agency property, including vehicles" and "It would be helpful to have one or more tobacco-free ambassadors [employees trained to support quit efforts]." We measured items on a 5-point Likert scale (1=strongly disagree to 5=strongly agree) and created a binary indicator for each statement.

Sociodemographic Characteristics.—We collected information on the following sociodemographic characteristics: age, race, ethnicity, gender, education level, annual household income, job title, job tenure, and whether the employee had managerial or supervisory responsibilities. We asked employees who reported having managerial or supervisory responsibilities to indicate their managerial role and interest in participating in the focus groups.

Data Analysis

We conducted data analysis in Stata version 15.1.[13] Because some state agencies were under- or over-represented in our sample, we weighted the data according to agency size estimates obtained from the WA Office of Financial Management.[14] First, we calculated descriptive statistics (frequencies and weighted percentages) for all survey variables. We then conducted chi-square tests using the Rao-Scott correction for weighted data to examine whether statistically significant differences in perceived norms and attitudes existed according to tobacco use and education level. We used Stata's contrast command to estimate trends by education level for each statement of norms or attitudes.

Focus Groups

Design and Sample Population

We conducted 90-minute, virtual focus groups over Zoom Video Conferencing (https://zoom.us/). The purpose of the focus groups was to gather more in-depth information from WA agency managers/supervisors about tobacco control implementation. Participants had to be aged 18+ years, currently managing or supervising at least one employee, and employed at one of the state agencies invited to participate in the survey.

Recruitment and Data Collection

We contacted managers/supervisors who participated in the employee survey that expressed interest in the focus groups via an e-mail message containing study information and link to a pre-survey. The purpose of the pre-survey was to assess for eligibility, gather demographic information, and determine availability to attend a focus group. We scheduled eligible individuals into groups according to their tobacco use (currently used vs. formerly/never used). We conducted the focus groups between July 29, 2021 and August 26, 2021. We did not provide incentives for participation.

Measures

The pre-survey contained the same demographic questions as those included on the employee survey. Additionally, we included questions on number of employees managed/supervised, whether any of the employees they supervised spoke a language other than English and if so, what languages. The focus group guide contained 10 questions on the following topics: awareness and perceptions of their agency's current tobacco-control efforts; attitudes toward proposed changes to EO 13-06; tobacco-related norms at their agency; perceptions of how COVID-19 has impacted tobacco use; and possible barriers to implementing new tobacco-control measures.

Data Analysis

We conducted a rapid analysis based on methods described in previous reports.[15,16] First, we developed a summary table template to extract data from the transcripts. Two members of the research team used the template for the first transcript and came together to compare summaries and discuss its usability and relevance to the data. We found agreement, usability, and relevance high, so we divided the remaining transcripts among three members of the research team and used the template to summarize each independently. Then, we consolidated the summaries from each transcript into a case-ordered matrix display[17] to collectively identify key themes.

Results

Employee Survey

Six of the seven state agencies participated in the employee survey. Two of the six agencies had very few respondents complete the survey (<35 combined) and did not have employees who participated in the focus groups. We excluded these respondents and limited our analysis to 2,592 survey responses from four agencies: Department of Corrections (16% response rate [RR]), Department of Transportation (11% RR), Labor & Industries (10% RR), and Health Care Authority (10% RR).

Sample Background

The highest proportions of respondents were female (50%), White (88%), non-Hispanic (95%), college graduates (45%); had an annual household income of $100,000 or more (41%); and had been working with their agency for 10 years or more (52%). See Table 1 below for a detailed breakdown of sociodemographic characteristics.

Of respondents, 13% were currently using tobacco, 39% had formerly used tobacco, and 48% had never used tobacco. The top three tobacco products used were cigarettes (58%), smokeless tobacco (35%), and e-cigarettes (17%). Among respondents who currently used tobacco, 27% intended to quit within six months. There was a significant association between tobacco use and education level ($p<0.001$); 30% of respondents with a high school education currently used tobacco, compared to just 7% of respondents with a post-graduate degree.

Of respondents, 83% were aware that their agency had a tobacco policy, and 51% had awareness of their agency's health insurance benefits for cessation treatment. Respondents who currently used tobacco and who did not intend to quit or were not sure had the highest level of benefits awareness. Among respondents who had a history of tobacco use and awareness of their agency's benefits for cessation treatment, 18% had used the benefits to help them quit.

Norms and Attitudes

Table 2 displays information on perceived norms and attitudes for the entire sample and by tobacco use. Regarding norms, respondents who currently used tobacco and intended to quit within six months were the least likely to agree that their coworkers supported tobacco use at the workplace (p<0.001), and most likely to agree that there was a negative attitude around tobacco use at their agency (p<0.001).

There were significant differences in all attitudes by tobacco use (p's<0.001). Respondents who currently used tobacco had more negative attitudes toward the proposed changes, particularly if they did not intend to quit within six months. Respondents who formerly used tobacco had more favorable attitudes toward proposed changes compared to respondents who currently used tobacco. For example, 49% of respondents who formerly used tobacco believed that commercial tobacco use should be completely prohibited on all agency property, compared to just 7% of respondents who currently used tobacco and did not intend to quit.

Table 3 displays information on perceived norms and attitudes by education level. With increasing education, respondents were more likely to agree that there were negative attitudes around tobacco use at their agency (p<0.001), and less likely to agree that their coworkers supported tobacco use at the workplace (p<0.001). Apart from a non-significant finding in attitudes toward having tobacco-free ambassadors at their agency (p=0.218), respondents with more education had more favorable attitudes toward all proposed changes (p's 0.001). Trend tests revealed increasingly negative perceived tobacco-related norms and positive attitudes toward proposed changes with increasing education for all significant associations.

Focus Groups

We conducted six focus groups (n=25 participants), four with individuals who formerly/never used tobacco (n=20) and two with individuals who currently used tobacco (n=5). Most participants were male (60%); White (84%); non-Hispanic (96%); college graduates (52%); had an annual household income of $100,000 or more (60%); and had been working with their agency for 10 years or more (72%). Over half (52%) were first-line managers. Most participants (80%) managed or supervised 1-24 employees. Our thematic findings are described in detail below. See Table 4 for quotations that illustrate our key themes.

Awareness and Promotion

Most participants were aware that their agency offered benefits for cessation treatment, though did not always know which specific benefits their agency offered. Knowledge of

specific benefits offered was higher among participants with a history of tobacco use. Agencies had not done a lot to promote cessation benefits. The most common reason for limited cessation promotion described by participants included (a) having very few employees at their agency who used tobacco and relatedly (b) tobacco cessation perceived as low priority by leadership.

Participants had several ideas about how to better promote and encourage cessation, including direct messages from leadership, sharing cessation stories from employees who have successfully quit, and tailored messaging to specific groups (e.g., employees who use smokeless tobacco). Participants were supportive of proposed tobacco policy and program changes, including the designation of tobacco-free ambassadors. Individuals perceived as being well-suited to serve as an ambassador included people who: are a good "match" with the agency's culture, have successfully quit using tobacco, are "within the ranks" or whom others trust, and have time to commit to being an ambassador.

Implementation Barriers

One major implementation challenge described was lack of capacity to promote and/or implement new tobacco policies or programs. For example, when discussing the idea of having a tobacco-free ambassador program, several participants noted that they would need financial resources and leadership support to implement the program. Participants were concerned about disruption related to COVID-19 and agreed it would be best to wait until the pandemic ended to implement any new tobacco-control efforts.

Participants also expressed concerns about "calling out" employees who used tobacco; for some participants, this was a primary reason their agency had not promoted cessation. Participants stressed the importance of communicating information without stigma, previously defined as negative tobacco-related stereotypes that result in devaluation or differential treatment of people who use tobacco.[18] Participants agreed that cessation messages should be positive, supportive, not restrictive, and take into consideration the norms and groups of employees who used tobacco within the agency. Some participants questioned if it was the role of state agencies to offer additional cessation support. In response to these concerns, participants thought a focus on health and well-being more broadly might be a better use of agency resources.

Perceived Effectiveness

Across all groups, participants emphasized the importance of an individual's internal motivation to quit. Participants were generally supportive of mandates restricting tobacco use, but the extent to which participants felt these policies were effective varied. Participants who currently used tobacco more frequently described a comprehensive policy as less effective and believed that employees would simply go off-property to use tobacco. Instead, these individuals favored greater promotion of cessation resources and encouragement of behavior change.

Participants who had formerly or never used tobacco were more likely to support restrictions on tobacco use, with some wanting to see policies include all forms of tobacco products. Some participants felt it was important to know the extent to which tobacco use was an

agency-wide issue, and if so, how or whether a reduction in tobacco use could be equated with agency outcomes like productivity.

Discussion

Despite declines in use over time, tobacco remains a leading cause of chronic disease and mortality.[19,20] Adults with lower levels of SES have higher rates of tobacco use,[2] putting these individuals at greater risk for illness. Our mixed-methods study explores perceived tobacco-related norms and attitudes among state agency employees, managers, and supervisors to help inform tobacco-control efforts within WA.

Several key findings arose from our analysis. Only 27% of survey respondents who currently used tobacco intended to quit within six months. These rates are lower than reported in previous studies, one of which found six-month quit intention rates between 38% to 53%.[21] One possible explanation for this difference is our focus on all tobacco products vs. cigarette smoking only. Quitting intentions for certain products like e-cigarettes are much lower, with one study reporting a 13% six-month quit-intention rate.[22]

Among respondents who had a history of tobacco use and were aware of cessation resources, only 18% had utilized them for cessation. Lack of awareness is likely an important factor influencing utilization among employees, as only 51% stated their agency offered health insurance benefits for cessation treatment. These findings are consistent with prior studies that have demonstrated low awareness of covered cessation benefits among individuals using tobacco.[23,24] Awareness seemed to be higher among focus-group participants, though several did not know what specific benefits their agency offered and had done little to promote them.

We found significant differences in perceived norms and attitudes by tobacco use among survey respondents. Compared to respondents who had formerly or never used tobacco, those who currently used tobacco perceived more negative norms around tobacco use at their agency and had more negative attitudes toward proposed tobacco-control changes. Focus-group participants who currently used tobacco more frequently described comprehensive tobacco policies as ineffective. Our findings are consistent with previous studies showing differences in tobacco-related perceived norms and attitudes by tobacco use.[25,26]

Tobacco-control efforts, particularly those that rely on negative reinforcement, can have unintended consequences,[27] including increased potential for stigma. Thus, one potential reason for attitudinal differences toward tobacco-control changes observed in our study may be concerns about stigma among respondents who currently used tobacco. This aligns with our focus-group findings, in which some participants expressed concerns about "calling out" employees who used tobacco when promoting cessation. Relatedly, respondents who currently used tobacco and intended to quit may be more aware of anti-tobacco norms, which could have even influenced some to quit. While we can't determine whether this was the case in our study, previous studies have found a statically significant association between social norms and intention to quit among employees.[28]

Nearly all attitudes toward proposed tobacco-control changes were more favorable among those with higher vs. lower levels of education. This finding is also aligned with prior studies, which report greater support for tobacco control measures among those with higher education.[29] A potential reason for these differences is the significant association between education and tobacco use. One important factor driving this association is the tobacco industry's targeted marketing of its products to individuals and communities of lower SES.[30] In turn, individuals with more education may have a better understanding of the benefits and implications of implementing tobacco-control EBIs.

Limitations

Our study had a few limitations. Survey response rates were low, nearly 70% of survey respondents had an annual household income of $75,000 or more, and our sample was predominantly White. Given this, the findings reported here may be less generalizable to groups that have historically experienced oppression and tobacco-related disparities, including individuals with lower SES and who identify as racial identities other than White. The number of participants in our focus groups that currently used tobacco was small, so our qualitative findings might not reflect the breadth of tobacco-related perceptions and attitudes held among this group. Strategies that can increase response rates include sending a pre-notification (i.e., letting participants know they will be receiving an invitation to participate), sending at least two reminders to participate, and offering incentives, including prize drawings.[1] Unfortunately, we were unable to offer incentives since our respondents were state employees.

We conducted our project during COVID-19, when many state employees were working from home. These arrangements could have influenced perceptions of tobacco control, including its effectiveness. While we asked managers/supervisors to indicate how they thought the pandemic impacted tobacco use, we did not explore the impact of the pandemic in depth or among employees. Despite these limitations, the results from this project contribute insight on how states can work to better address tobacco policy and program implementation, and in turn increase quit attempts and cessation to improve employees' health.

Implications for Policy and Practice

Our findings suggest first and foremost that state agencies and their tobacco cessation partners should work to increase promotion of tobacco-control EBIs. State agencies should carefully examine communications and seek input from employees who currently use tobacco to avoid inadvertently shaming or stigmatizing these employees. Incorporating tobacco cessation messaging into broader communications could reduce potential stigma and increase positive norms for cessation and aligns with focus-group participants' beliefs that a focus on health and well-being more broadly would be a better use of agency resources. The Centers for Disease Control and Prevention's *Best Practices User Guide: Health Communications in Tobacco Prevention and Control*[31] provides additional guidance around communications planning. Person-first language (e.g., "person who smokes" vs. "smoker") should be used when describing tobacco use to avoid stigma.[32] State agencies

could use this language when promoting cessation, though additional research is needed to understand how this language impacts quit intentions and success.

Secondly, state agencies should tailor program efforts and communications to employees' needs, which could vary within and across different state agencies. Survey respondents who currently used tobacco and who did not intend to quit or were not sure had more negative attitudes toward proposed changes. Certain forms of tobacco use may also be higher at certain agencies; in our study, focus group participants from DOC described high rates of smokeless tobacco use at their agency. Promotion of evidence-based programs like quit line (e.g., 1-800-QUIT-NOW), which can tailor cessation assistance to the individual's specific needs, may be most effective in increasing quit success.

Lastly, the state should work with its agencies to ensure they have the support, knowledge, and resources needed to implement changes; for example, by providing technical assistance for implementation or allotting financial resources to cover implementation costs. Some focus-group participants wanted to know the extent to which tobacco use was an agency-wide issue, and the impact additional tobacco-control efforts would have on their agency's bottom line. Collecting and sharing this information with state-agency leadership prior to implementation could enhance buy-in for tobacco control.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgements:

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Learning Outcomes

- Identify differences in employees' awareness, attitudes, and norms around tobacco-control efforts by tobacco-use status, intention to quit tobacco, and education level.

- Describe at least 3 barriers and facilitators to implementing tobacco-control efforts within state agencies.

Table 1.

Sociodemographic Characteristics, Employee Survey, Washington State, May 2021

Variable	Total n=2,592		DOC n=1,389		DOT n=759		L&I n=309		HCA n=135	
	n	%	n	%	n	%	n	%	n	%
Age										
18-24	34	1.3	15	1.1	17	2.3	2	0.7	0	0.0
25-34	341	13.2	190	13.8	90	12.0	42	13.7	19	14.2
35-44	556	21.6	307	22.2	140	18.7	65	21.2	44	32.8
45-54	710	27.0	418	30.3	191	25.5	74	24.2	27	20.1
55-64	801	31.6	396	28.7	270	36.0	97	31.7	38	28.4
65+	128	5.2	55	4.0	41	5.5	26	8.5	6	4.5
Gender										
Male	1,225	47.9	646	47.5	460	62.2	96	31.9	23	17.3
Female	1,254	50.0	681	50.0	269	36.4	195	64.8	109	82.0
Other gender identity	56	2.2	34	2.5	11	1.5	10	3.3	1	0.8
Race										
American Indian or Alaska Native	36	1.3	26	2.0	7	1.0	2	0.7	1	0.8
Asian	61	2.5	30	2.3	17	2.4	9	3.0	5	3.8
Black or African American	54	2.0	40	3.0	7	1.0	5	1.7	2	1.5
Pacific Islander	23	0.9	14	1.1	6	0.8	2	0.7	1	0.8
White	2,159	87.7	1,132	85.6	646	89.8	263	88.0	118	90.1
Multiracial	138	5.5	80	6.1	36	5.0	18	6.0	4	3.1
Hispanic or Latino	142	5.3	101	7.5	22	3.0	14	4.7	5	3.8
Education level										
High school or less	207	7.7	136	10.0	50	6.7	16	5.23	5	3.78
Some college or technical school	876	33.5	524	38.5	230	30.7	89	29.3	33	24.8
College graduate	1,117	44.7	547	40.2	352	47.0	157	51.6	61	45.9
Post-graduate degree	347	14.1	154	11.3	117	15.6	42	13.8	34	25.6
Annual household income										

Variable	Total n=2,592		DOC n=1,389		DOT n=759		L&I n=309		HCA n=135	
	n	%	n	%	n	%	n	%	n	%
Less than $25,000	3	0.1	2	0.1	1	0.1	0	0.0	0	0.0
$25,000 to $49,999	168	6.6	102	7.6	31	4.2	23	7.7	12	9.4
$50,000 to $74,999	610	23.4	399	29.9	120	16.3	63	21.1	28	21.9
$75,000 to $99,999	704	28.9	331	24.8	229	31.1	95	31.9	49	38.3
$100,000 or more	1,012	40.9	501	37.5	355	48.2	117	39.3	39	30.5
Agency job tenure										
Less than 1 year	143	5.7	70	5.1	51	6.8	13	4.3	9	6.7
1 to less than 2 years	152	5.9	85	6.2	41	5.5	15	4.9	11	8.1
2 to less than 5 years	448	17.8	225	16.4	129	17.2	46	15.1	48	35.6
5 to less than 10 years	473	18.5	262	19.2	104	13.8	86	28.3	21	15.6
10 years or more	1,343	52.1	726	53.1	427	56.8	144	47.4	46	34.1
Has manager/supervisor responsibilities	928	35.4	537	39.4	285	37.9	73	23.9	33	24.6
Managerial role[1]										
First-line manager	557	61.1	326	61.6	161	57.3	49	71.0	21	63.6
Middle manager	272	30.5	137	25.9	108	38.4	19	27.5	8	24.2
Executive leadership	83	8.4	66	12.5	12	4.3	1	1.4	4	12.1

DOC = Department of Corrections. DOT = Department of Transportation. L&I = Labor & Industries. HCA = Health Care Authority.

[1] Asked only among employees who indicated they had managerial or supervisory responsibilities. Frequencies are unweighted; percentages are weighted. Some percentages may not total 100% due to missing data.

Table 2.

Perceived Norms and Attitudes by Tobacco Use, Employee Survey, Washington State, May 2021

Variable	Total n=2,592		Current tobacco use – intend to quit within 6 mos. n=96		Current tobacco use – do not intend to quit within 6 mos. or not sure n=261		Former tobacco use n=970		Never used tobacco n=1,244		P-Value
	n	%	n	%	n	%	n	%	n	%	
Perceived Tobacco-Related Agency Norms											
Many others in my agency use commercial tobacco products.	1,401	52.6	47	47.2	167	61.9	509	50.9	678	52.5	0.017
It is common to see someone using commercial tobacco products on agency grounds.	1,625	63.1	56	58.3	178	68.0	621	64.1	770	61.7	0.181
My coworkers support using commercial tobacco at the workplace.	613	22.3	17	15.9	92	32.5	237	23.0	267	20.1	<0.001
There is a negative attitude in my agency around commercial tobacco product use.	510	21.5	25	28.4	66	28.3	211	23.2	208	18.4	<0.001
My agency actively encourages employees to quit using commercial tobacco products.	630	25.3	16	17.1	63	25.2	254	26.8	297	24.8	0.223
My agency prioritizes programs that help employees quit using commercial tobacco products.	381	15.7	10	11.2	28	11.7	151	16.2	192	16.4	0.193
Attitudes toward Proposed Tobacco-control Changes											
Commercial tobacco use should be completely prohibited on all agency property, including vehicles.	1,311	52.5	14	15.1	18	7.2	468	49.0	811	67.2	<0.001
Commercial tobacco policies should be strictly enforced at my agency.	1,615	64.9	37	39.1	69	27.6	598	63.5	911	75.4	<0.001
My agency should encourage employees who use commercial tobacco to quit.	1,452	57.9	34	36.9	62	25.0	561	59.0	795	65.2	<0.001
My agency should actively promote tobacco cessation benefits offered by employee health insurance.	1,863	74.3	64	68.8	109	43.7	725	76.1	965	79.3	<0.001
My agency should actively promote other tobacco-cessation programs and resources.	1,746	70.0	61	64.8	96	38.3	685	72.4	904	74.7	<0.001
Health insurance premium surcharges for tobacco users help employees quit using commercial tobacco products.	590	23.4	6	5.6	10	3.8	213	22.0	361	29.8	<0.001
It would be helpful to have one or more tobacco-free ambassadors at my agency to support employees in their quit attempts.	802	31.8	29	29.8	28	11.0	308	32.5	437	35.6	<0.001

Variable	Total n=2,592		Current tobacco use – intend to quit within 6 mos. n=96		Current tobacco use – do not intend to quit within 6 mos. or not sure n=261		Former tobacco use n=970		Never used tobacco n=1,244		P-Value
	n	%	n	%	n	%	n	%	n	%	
It would be helpful to have one or more employee-facilitated cessation groups at my agency to provide peer support for employees' quit attempts.	926	37.1	29	31.5	39	16.6	365	38.7	493	40.3	<0.001

Table shows the percent of respondents who indicated "Strongly Agree" or "Agree" to each statement. Frequencies are weighted; percentages are unweighted. Chi-square tests with Rao-Scott correction used to determine p-values. Some percentages may not total 100% due to missing data.

Table 3.

Perceived Norms and Attitudes by Education Level, Employee Survey, Washington State, May 2021

Variable	High School Graduate or Less n=207		Some College n=876		College Graduate n=1,117		Post-Graduate Degree n=347		P-Value
	n	%	n	%	n	%	n	%	
Perceived Tobacco-Related Agency Norms									
Many others in my agency use commercial tobacco products.	128	60.3	532	58.9	571	49.6	158	42.9	<0.001
It is common to see someone using commercial tobacco products on agency grounds.	143	68.7	577	65.6	701	63.0	193	55.4	0.004
My coworkers support using commercial tobacco at the workplace.	69	31.4	242	26.0	240	20.3	56	14.4	<0.001
There is a negative attitude in my agency around commercial tobacco product use.	21	11.0	164	20.0	250	24.1	76	24.6	<0.001
My agency actively encourages employees to quit using commercial tobacco products.	44	21.1	222	26.2	270	25.0	88	26.5	0.478
My agency prioritizes programs that help employees quit using commercial tobacco products.	23	11.5	123	14.7	177	16.8	54	16.5	0.237
Attitudes toward Proposed Tobacco-control Changes									
Commercial tobacco use should be completely prohibited on all agency property, including vehicles.	73	36.2	389	45.1	611	55.7	229	69.2	<0.001
Commercial tobacco policies should be strictly enforced at my agency.	100	50.4	496	58.1	745	68.1	260	78.2	<0.001
My agency should encourage employees who use commercial tobacco to quit.	85	41.4	445	51.6	675	61.7	241	70.8	<0.001
My agency should actively promote tobacco cessation benefits offered by employee health insurance.	121	59.2	588	68.8	858	78.4	286	83.3	<0.001
My agency should actively promote other tobacco-cessation programs and resources.	111	53.0	559	65.4	798	73.7	266	78.4	<0.001
Health insurance premium surcharges for tobacco users help employees quit using commercial tobacco products.	44	19.9	170	19.7	270	24.4	104	31.2	<0.001
It would be helpful to have one or more tobacco-free ambassadors at my agency to support employees in their quit attempts.	57	27.0	260	30.4	356	32.7	121	34.6	0.218
It would be helpful to have one or more employee-facilitated cessation groups at my agency to provide peer support for employees' quit attempts.	61	29.8	286	33.3	423	39.0	147	43.0	0.001

Table shows the percent of respondents who indicated "Strongly Agree" or "Agree" to each statement. Frequencies are weighted; percentages are unweighted. Chi-square tests with Rao-Scott correction used to determine p-values. Some percentages may not total 100% due to missing data.

Table 4.

Illustrative Quotes from Rapid Analysis, Manager/Supervisor Focus Groups, Washington State, July – August 2021

Theme	Quotes
Awareness and Promotion	*"As far as [state agency] is concerned, we do allow tobacco on the campus still. I know that myself and others that I work with have tried to push for a smoke-free campus, but we've been told that that's never going to happen. I'm thinking never is not a great word to say right now from what my understanding is as a supervisor and when I first started with the agency was that there was encouragement to quit and that the agency would help with that, but I haven't really heard of anything since my initial start in 2013. Obviously, it's been quite a few years since then. It's really not a huge topic here…"* – Female, Former Tobacco Use, First-Line Manager *"I think that when people can see from their colleagues how they did it — we didn't do this although it would have been cool if we did, but we didn't have the video capability at the time — is to actually have video testimony interviews and have people just be really honest and talk about it, and how they went about quitting — even how they failed and they got on the horse again until they were successful."* – Male, Former Tobacco Use, First-Line Manager *"I think [a tobacco-free ambassador program] is an excellent idea. I think it's always better if we can get someone from within the ranks who is well-trained and that's key to be able to promote a program like this — rather than having some manager telling people what they should do. I think that would be much better accepted."* – Male, Never Used Tobacco, First-Line Manager
Implementation Barriers	*"Something like smoking cessation has a significant impact on an individual person, and there's a stigma associated with it. It's becoming exclusionary. There's a lot of stuff surrounding this that's a whole lot different than some of the other wellness benefits. It's pretty easy to say, "Hey, go get some more steps as opposed to hey, stop smoking.""* – Female, Never Used Tobacco, First-Line Manager *"…tobacco use is very polarizing. What we have come to believe, because we have evidence of this, is that the hardcore smokers are just feeling ganged up against. And then the friends of those smokers don't like seeing—the friends of those smokers and the friends who don't smoke—don't like seeing their friends ganged up against. And then we have the antismoking advocates that are over the top weird, you know? If they could do it, they would fire every smoker. So because of the polarizing effect of all of this — unless we have something really good to offer, we tend to stay away from it now."* – Male, Former Tobacco Use, First-Line Manager *"I think [participant name] mentioned earlier the whole issue around vaccinations. I think that timing and the fact that we are really in a very controversial period in our history right now, I think just attacking the nonvaccinated and attacking the smokers — you know, the timing I don't think is great. I think we should take on one issue and then move into another. Hopefully, we'll be through the vaccination controversy here in a few months, but it's perhaps just weighing that out and balancing what hill to die on, so to speak."* – Male, Former Tobacco Use, Executive
Perceived Effectiveness	*"I think that having a policy in place for the building and the grounds itself is fine. And then, you know, it's up to that person to make the right choice or choices. I don't know that it's the right choice or not for that person, but to make the choice. Nobody wants to not have a choice."* – Female, Current Tobacco Use, First-Line Manager *"So I think that it has to be a personal choice, just like any addiction. People come to their own terms as to why they want to quit. As far as work — yes, I see the money comment. That's what I was thinking. I mean, which then you're looking at "well, if we're going to pay someone to quit smoking, I haven't smoked. Do I get money for not smoking?" I think that it has to be a personal decision to quit, and then having the support there. I don't think there's really anything we can do as an agency other than encourage healthy living and healthy options. That kind of thing. Someone just has to come to it on their own terms."* – Male, Former Tobacco Use, Middle Manager *"I think that would be really helpful. I know that here at the correctional complex there's a pretty good percentage of staff that use smokeless tobacco, myself included. If I wasn't able to use it at work, you know, that's another eight-and-a-half hours a day that I wouldn't be able to participate in it. I think that would be a benefit. I can't say that everybody would feel that way, or that I would if it actually did come down to it. I think that if somebody is serious about quitting, anything to help them find time in the day where they just can't access it is a benefit."* – Male, Current Tobacco Use, First-Line Manager