

WORKPLACE SOLUTIONS

From the National Institute for Occupational Safety and Health

Using Total Worker Health™ Concepts to Enhance Workplace Tobacco Prevention and Control

Summary

Worksite health promotion programs designed to improve worker health, such as those that help workers stop or reduce tobacco use, have traditionally focused on individual factors and not taken work-related exposures and hazards into account. Through its Total Worker Health™ Program, the National Institute for Occupational Safety and Health (NIOSH) recommends an integrated approach to addressing personal as well as workplace safety and health factors.

Description of Exposure

Tobacco use is associated with cardiovascular diseases, various types of cancer, respiratory diseases, and reproductive disorders [DHHS 2014]. An estimated 19.6% of workers smoke cigarettes regularly [CDC 2011], and an estimated 17.8% of U.S. adults were cigarette smokers in 2013 [CDC 2014].

Smoking cigarettes can be as addictive as heroin or cocaine [CDC 2008, 2013]. Smokeless tobacco also poses health risks; it increases the risk of oral cavity, esophageal, and pancreatic cancers [DHHS 2014]. Nonsmoking workers who are exposed to secondhand smoke* may be at risk of lung cancer, heart disease, stroke, and respiratory illnesses.

Current Standards

In addition to Federal prohibitions on tobacco smoking in commercial flights, interstate buses, Federal office buildings, and facilities where federally funded educational services are provided to children, smoke-free policies in private-sector workplaces, restaurants, and bars have been enacted by individual States [CDC 2015b]. Hundreds of local jurisdictions have also enacted smoke-free laws. These regulations are generally meant to eliminate exposure to secondhand smoke in these environments. According to a report by the

*Secondhand smoke is smoke from burning tobacco products, or smoke that has been exhaled by the person smoking [CDC 2015a]

Surgeon General [DHHS 2014], there is no established safe level of exposure to cigarette smoke. OSHA does not regulate workplace tobacco use, but notes that poor indoor air quality can affect worker health [OSHA 2013].

Total Worker Health™: an Integrated Approach

Successful worksite tobacco control initiatives can help improve health outcomes by promoting cessation among tobacco users and reducing exposure to secondhand smoke for nonsmoking employees and other nonsmokers present in the workplace [CDC 2013]. Successful programs can result in workers using fewer health care services if they quit smoking, and improved absenteeism rates and productivity [Task Force 2010; Goetzel and Pronk 2010; Leif Associates 2012]. The effects of serious diseases associated with smoking cigarettes (such as cancer and heart and respiratory conditions) can be reduced through intervention efforts that help workers quit smoking.

The workplace offers an ideal setting for such programs: a stable population frequently interacting with one another over extended periods allows for peer influences and support networks to develop. This support, combined with smoke-free policies and provision and promotion of services that support cessation, can increase the chances that a worker will quit tobacco use. As noted by Goetzel et al. [2014], any workplace prevention program must have clear goals, be integrated into the workplace structure, and promote a culture of health.

Worksite health promotion programs typically focus on promoting positive lifestyle factors (such as tobacco prevention and control) without addressing organizational, social, and environmental risk factors that also may be harmful to the worker's overall health and may contribute to tobacco use. Worksite safety and health protection programs focus on reducing exposures to harmful substances while on the job. Health promotion and health protection have often been considered separately and may even compete for limited resources [Sorensen 2001]. However, Baron et al. [2014] show that a worker's safety and health are often affected by workplace exposures, lifestyle, and community factors. Their research includes examples of increasing employee input and employer support that make workplace health programs more successful [see Baron et al. 2014]. Programs aimed at improving safety and promoting health may be more effective when employers consider implementing them together.

Workplace Tobacco Use and Secondhand Smoke Exposure

Low income, blue collar, and service workers are more likely to hold jobs that expose them to hazardous substances, including secondhand smoke. They are also more likely to smoke, be employed in places that allow smoking, and live in communities with high levels of outdoor air pollution. Research shows that persons who face more hazards on the job are more likely to smoke [Baron et al. 2014; Sorensen 2001]. Interventions that focus solely on tobacco cessation without accounting for job hazards may be less successful at improving health.

Some chemical exposures in the workplace may increase the likelihood that smokers will develop cancer. For example, tobacco smokers who have been exposed to asbestos have a "far greater-than-additive" risk for lung cancer compared with smokers who have not been exposed to asbestos or nonsmokers who have been exposed to asbestos. Nonsmokers exposed to asbestos have a 5 times greater risk of developing lung cancer than nonexposed nonsmokers [Alberg and Samet 2003]. Smoking alone (with no asbestos exposure) increases the risk of lung cancer by approximately 25 times [DHHS 2014]. But when a cigarette smoker is exposed to

asbestos, his/her risk of lung cancer increases by 50 to 84 times [ATSDR 2006, 2008].

Making sure that workplaces are safe may increase employee buy-in for health promotion efforts. In the absence of workplace safety initiatives, workers may feel that workplace hazards are not being addressed, that employee smoking should not be a concern of the employer, and that smoking cigarettes is a minor risk compared with job hazards [Sorensen et al. 2004]. Following the hierarchy of controls can help reduce employee exposure to hazards and is a foundation of Total Worker Health™ principles. (According to the hierarchy of controls, eliminating or controlling a hazard at its source is the best way to reduce worker exposure and takes precedence over personal protective equipment) [NIOSH 2011, 2013]. Programs that address both employee and management concerns are therefore necessary for successful adoption of healthful lifestyle choices. Management is responsible for reducing harmful exposures on the job, but they can also support employee participation in health promotion activities [Sorensen 2001]. Addressing both worker safety on the job as well as healthful lifestyle choices can benefit the overall health of the worker. Smokefree policies can bridge both of these approaches, since they protect workers from an occupational hazard (secondhand smoke) while also helping employees who want to quit smoking.

Factors Affecting the Success of Tobacco Prevention and Control Initiatives

Any health protection or promotion program must account for influences and factors from all aspects of workers' lives in order to be more successful.

Job-related factors that may limit the success of workplace health programs (such as tobacco prevention and control) include job stress, high job demands [Radi et al. 2007], and characteristics of low income work such as repetitiveness, exposure to hazards that may exacerbate respiratory conditions, and lack of control over work and work schedules [Sorensen et al. 2004]. Low income workers are also less likely to have tobacco cessation or other health promotion programs offered to them at work.

Yong et al. [2014] found that smokers exposed to respiratory hazards on the job were more likely to be interested in quitting smoking, but this did not translate into a higher success rate for quitting.

Personal factors that may limit the success of tobacco prevention and control initiatives include time constraints; workers' having other unmet needs such as insufficient food and medical care; and lack of affordable child care, access to healthcare services, or transportation [Baron et al. 2014]. All of these factors may be reasons that workers with lower in-

comes have less success with quitting tobacco use [Sorensen et al. 2004]. Tobacco prevention and control initiatives should also consider the highly addictive nature of tobacco and incorporate clinical recommendations for tobacco dependence and treatment [DHHS 2008]. Another important factor in successful tobacco cessation is the worker's "perceived self efficacy" or confidence that he or she can be successful at quitting [Bandura 1982].

Community factors may include environmental contamination (including exposure to respiratory hazards such as air pollution and secondhand smoke) and greater exposure to tobacco retail outlets and tobacco advertising. Yong et al. [2014] also found that tobacco control was less successful among workers who lived in homes where someone smoked.

Recommendations for Applying Total Worker Health™ Concepts to Workplace Tobacco Prevention and Control

Tobacco control initiatives are more effective when all factors influencing worker safety and health are considered [Baron et al. 2014; Task Force 2010; NIOSH 2011; Sorensen 2001]. Employers should take the following steps to enhance workplace tobacco control initiatives:

- Eliminate or reduce exposure to harmful substances (including secondhand smoke) in the workplace by applying the hierarchy of controls.
- Adopt a tobacco-free workplace and worksite-wide tobacco-free/smokefree policies, which have a greater effect and wider reach than programs targeting only workers who want to quit using tobacco products.[†]
- Develop an overall, comprehensive model for tobacco control initiatives. Encourage worker participation in developing the initiatives.
- Educate management and supervisors on ways to reduce the job stress faced by workers, such as offering more autonomy over work and work schedules.
- Identify workers' priorities and concerns about their health risks, and involve them in all stages of problem identification and tobacco control program design. Seek union support where available.
- Include a worker's family in the support network for tobacco control programs, and offer these programs to family members who use tobacco.
- Provide information about community and public policy initiatives about tobacco control.

[†]For workplaces that are not able to go tobacco free, visit the CDC website for information about going smoke-free: http://www.cdc.gov/tobacco/basic_information/secondhand_smoke/index.htm

- Consider the elements of successful programs as outlined in Healthy People 2020:
 - Promote health education that combines skill development, lifestyle change, and information.
 - Organize the social and physical work environment to promote healthy behaviors.
 - Integrate programs into the company structure and other safety and health initiatives.
 - Link health promotion and related programs (such as employee assistance).
 - Provide medical screening, education, and follow-up services.

General Recommendations for Workplace Tobacco Prevention and Control

Employers or those responsible for health promotion in the workplace should take the following steps to increase the chances of success of workplace tobacco prevention and control initiatives [NIOSH 2015; Task Force 2010; DHHS 2008; Goetzel and Pronk 2010; Sorensen 2001]:

- Provide all employees with comprehensive cessation insurance coverage, including coverage of individual, group, and telephone counseling and all seven FDA-approved cessation medications with no or minimal barriers (e.g., no copayments or prior authorization). Include follow-up programs to prevent relapses and improve habits over a lifetime. Promote this coverage to employees and their health care providers, and monitor its use.
- Inform employees about health insurance coverage or programs that include tobacco cessation medication and counseling.
- Be aware that tobacco smoking is a chronic addiction that may require repeated intervention and several attempts to quit.
- Encourage workers to seek a health professional's help in quitting tobacco use.
- Offer information about the health risks of tobacco use and the benefits of quitting, as well as the dangers of secondhand smoke exposure.
- Offer assessment of individual health risks with feedback about risk status.
- Offer individual and group counseling, as well as referrals to telephone quit lines, and cessation text messaging and Internet services, such as the National Cancer Institute's SmokefreeTXT and www.smokefree.gov.
- Offer different interventions for workers' different stages of readiness to quit tobacco use (e.g., provide

motivational interviewing to smokers who are not ready to quit to move them towards readiness).

- Offer or make workers aware of additional support services such as support groups, educational materials, and referrals to other programs and healthcare providers.
- Bring program information directly to the work area, break rooms, etc., to fit into workers' schedules.
- Structure breaks so that employees can get sufficient rest and smoking isn't the only option for quick, temporary relief from a demanding job.
- Incorporate tobacco intervention programs into a broader health awareness and healthy company culture (such as promotion of good nutrition and physical activity). Ask about personal tobacco use as part of any wellness program.

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