
A Recommendation to Improve Employee Weight Status Through Worksite Health Promotion Programs Targeting Nutrition, Physical Activity, or Both

Task Force on Community Preventive Services

Obesity is now recognized as a major health problem with substantial direct and indirect costs to individuals and the U.S. healthcare system. In workplaces over the past century, economic and industrial innovations have reduced the number of workers in primary industries (e.g., agriculture, fishing, mining, or forestry); increased automation and labor-saving devices in production industries; and produced large increases in the proportion of people engaged in sedentary industries. Many workers are sedentary, with easy access to energy-dense (i.e., “empty-calorie”) foods and beverages. Epidemiologic studies of characteristics of working conditions and worker overweight or obesity have shown associations between long work hours, shift work, and job stress and increases in BMI.¹ The association between excess body weight and risk for a range of occupational conditions—including injury, asthma, musculoskeletal disorders, immune response, neurotoxicity, stress, cardiovascular disease, and cancer—has been described elsewhere.¹

More than 30% of the U.S. adult population is obese, and a link has been established between obesity and cardiovascular disease, hypertension, dyslipidemia, type 2 diabetes, stroke, osteoarthritis, and some cancers.^{2,3} Estimates of aggregate overweight- and obesity-attributable medical spending in the U.S. in 1998 were as high as \$78.5 billion (\$92.6 billion in 2002 dollars) or 9.1% of the total annual medical expenditure.⁴ Given the tremendous costs, policymakers, health administrators, and employee wellness program directors need to take action by supporting evidence-based physical activity and nutrition programs that can help reduce the burden of obesity on the U.S. healthcare system. In the workplace, obesity affects costs associated with absenteeism, sick leave, disability, injuries, and healthcare claims.⁵ Programs and policies that improve worker health and ultimately reduce healthcare costs are of great importance to employers.⁶ Although extant reviews, both qualitative^{7–10} and quantitative,^{11–13} have yielded mixed results on the effectiveness of worksite programs in reducing overweight and obesity among workers, these reviews investigated multiple health risk

outcomes and did not attempt to quantify program impacts on weight as a summary measure of effect across the bodies of evidence reviewed.

For the accompanying review¹⁴ and the recommendation made here, the criteria developed by the Task Force on Community Preventive Services¹⁵ were used to evaluate the effectiveness of worksite interventions to promote healthy weight and BMI by targeting employees’ nutrition and physical activity behaviors. These interventions can include information and behavioral strategies as well as policy and environmental approaches to support behavioral change. They may focus on weight alone, or be part of a comprehensive worksite wellness program.

The accompanying systematic review¹⁴ found strong evidence, according to *Guide to Community Preventive Services* rules,¹⁵ that worksite health promotion programs aimed at improving nutrition, physical activity, or both, are effective in reducing body weight and BMI. Forty-seven studies of either worksite nutrition or physical activity or combined nutrition and physical activity interventions qualified for assessment of effectiveness. Across the three outcomes examined in this review (BMI, weight, and percentage body fat), effects consistently favored the intervention group compared to controls. Employees showed a benefit of -2.8 pounds (95% CI: $-4.6, -1.0$) or -0.5 BMI (95% CI: $-0.8, -0.2$) when compared to controls at the 12-month follow-up. On the basis of this evidence, the Task Force recommends the use of these worksite health promotion programs.

Interpreting and Using the Recommendation

This recommendation should prove useful for employers, insurance companies, HMOs, employee groups, policymakers, program planners, implementers, and researchers. It can support decisions to implement and evaluate worksite programs that promote healthy weight through changes in diet and physical activity, and the evidence on which it is based can provide direction for further research in this area. Although this intervention approach may be expected to have only a modest effect on weight change at the individual level, at the population level it can potentially prevent and control

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overweight and obesity when applied to a substantial proportion of the employee population and implemented in conjunction with other clinical and community interventions.¹⁴

Programs implemented in the workplace can benefit from characteristics of that environment. Many people interact with one another in close physical proximity on a regular basis. The population is relatively stable, and some policies can be more easily mandated and enforced than in community settings. In addition, the burden of illness is shared by employers (e.g., through lost productivity) and employees (e.g., through lost work time and sometimes pay); this shared burden provides an impetus for both policy and behavior change.

The names and affiliations of the Task Force members are listed at www.thecommunityguide.org.

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