

Workplace-wide interventions to prevent obesity

Public Health & Prevention: Community-based

Literature review updated November 2015.

As part of WSIPP’s research approach to identifying evidence-based programs and policies, WSIPP determines “what works” (and what does not work) to improve outcomes using an approach called meta-analysis. For detail on our methods, see our [Technical Documentation](#). At this time, WSIPP has not yet calculated benefits and costs for this topic.

Program Description: Workplace-wide initiatives to reduce obesity target all employees. We only included studies that measured the impact of the programs on all employees, regardless of whether they participated. The interventions included in this analysis varied widely, but included at least one of the following program components: weight loss or healthy eating competitions; fitness classes and walking clubs; classes or information on obesity prevention; newsletters, signs and posters promoting healthy choices; onsite farmers markets; increased availability of healthy food and vending options; and decreased price of healthy food and drinks.

Meta-Analysis of Program Effects

Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect size and standard error			Unadjusted effect size (random effects model)	
			ES	SE	Age	ES	p-value
Obesity	4	1338	-0.010	0.039	47	-0.010	0.809

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our [Technical Documentation](#).

Citations Used in the Meta-Analysis

Elliot, D.L., Goldberg, L., Kuehl, K.S., Moe, E.L., Breger, R.K., & Pickering, M.A. (2007). The PHLAME (Promoting Healthy Lifestyles: Alternative Models' Effects) firefighter study: outcomes of two models of behavior change. *Journal of Occupational and Environmental Medicine, 49*(2), 204-13.

French, S.A., Harnack, L.J., Hannan, P.J., Mitchell, N.R., Gerlach, A.F., & Toomey, T.L. (2010). Worksite environment intervention to prevent obesity among metropolitan transit workers. *Preventive Medicine, 50*(4), 180-185.

Lemon, S.C., Zapka, J., Li, W., Estabrook, B., Rosal, M., Magner, R., Andersen, V., ... Hale, J. (2010). Step ahead a worksite obesity prevention trial among hospital employees. *American Journal of Preventive Medicine, 38*(1), 27-38.

Linde, J.A., Nygaard, K.E., MacLehose, R.F., Mitchell, N.R., Harnack, L.J., Cousins, J.M., Graham, D.J., ... Jeffery, R. W. (2012). HealthWorks: results of a multi-component group-randomized worksite environmental intervention trial for weight gain prevention. *International Journal of Behavioral Nutrition and Physical Activity, 9*(1), 1-12.

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