



Nutrition and Weight Management in the Workplace

A Guide for Employers

Prepared by The Institute for Health and Productivity Studies, Johns Hopkins Bloomberg School of Public Health

Nutrition and Weight Management

Employer User Guide

Table of Contents

Why is a healthy employee diet and healthy weight management important to businesses?	1
How can employers help employees improve their diets and lose weight?	2
Summary	5
References.....	6

Why is a healthy employee diet and healthy weight management important to businesses?

Diet plays a critical role in the health of employees. Poor diet can lead to weight gain, which can lead to a number of health conditions, including heart disease, stroke, high blood pressure, type 2 diabetes, and cancers.^{1,2} Weight gain and associated health issues create both direct and indirect costs for businesses. Studies show that overweight and obese workers use more healthcare services, are less productive at work, are absent more frequently, and are more likely to use short-term disability benefits than their healthier peers.³ For example:

- At the **Mayo Clinic**, employees with weight risks (being overweight or obese, or underweight) had \$375 **higher annual medical costs**, on average, compared to their normal weight peers. Moreover, employees with weight risks incurred an average \$205 annual productivity cost (\$113 lost due to absenteeism and \$92 lost due to presenteeism).⁴
- A study at **Johnson & Johnson** found that employees who added weight risk (i.e., moved from a normal weight to an obese weight) had 9.9% **higher medical cost growth** than those who stayed at a non-obese weight, and employees who gained weight and moved into the obese category experienced annual cost increases totaling \$652 more than those who maintained weight over an average of 4.8 years.⁵
- **Pepsi Bottling Group** found differences in medical costs (when compared to employees with a normal weight) ranging from \$236 for overweight employees to \$1,989 for very obese employees; further, there were **differences in workers compensation claims** of \$48 for overweight employees and \$574 for very obese employees relative to employees with a normal weight.⁶

Nutrition and Weight Management

Employer User Guide

How can employers help employees improve their diets and lose weight?

As a result of the extensive health and business benefits stemming from a workforce with healthy eating habits, there is an interest in evidence-based workplace programs promoting healthy nutrition. We have prepared the following recommendations and strategies using evidence-based literature reviews and interviews with leading experts. Scientific research and expert opinion supports the following strategies:

1. Educate employees about nutrition.

It is important to make sure everyone – from leadership to employees — is on the same page about nutrition. Nutrition education is a common strategy for workplace programs targeting diet, and education provided by a dietician has been identified as an element of success for workplace nutrition programs.²⁴ Information can also be provided through a variety of communication channels, like brochures, videos, posters, or emails. The CDC offers an [online guide to losing weight](#), with evidence-informed, step-by-step instructions for individuals. The American Heart Association (AHA) also has a freely available, evidence-informed [guide to losing weight](#), with resources for calculating individual daily calorie needs, cooking healthy, and understanding nutrition label information.

Although there is confusion about what is considered a “healthy” diet, in part because of mass media giving greatest attention to poorly conducted deviant studies, Dr. Willett says, “There has been agreement about the main components of a healthy diet for a long time.” The emerging consensus across all diet types, according to Dr. Willett, is that people should be eating lots of fruits and vegetables (1/2 of their plate), whole grains (1/4 of their plate), and healthy proteins like fish, chicken, beans, and nuts (1/4 of their plate). Dr. Katz suggests also focusing on the sustainability of a healthy diet and its effects on climate change. According to Dr. Katz, there is a need to focus on how diet impacts children’s health and the world they will inherit, much as the war on tobacco effectively campaigned against the harms of secondhand smoke. Finally, it is important to remember that one education program is not enough, especially in workplaces with high turnover rates.

Expert Interviewees:

Laura Kettel Khan, MIM, PhD is currently the Senior Scientist and Advisor in the Division of Nutrition, Physical Activity, and Obesity at the Centers for Disease Control and Prevention in Atlanta, Georgia. Dr. Kettel Khan serves on numerous national advisory committees related to evaluation and evidence for community environmental and policy efforts and is the Agency’s representative for partnerships which focus on obesity prevention and evaluation with other federal agencies and/or private foundations, such as the National Collaboration for Childhood Obesity Research (NCCOR) and the national Convergence Partnership, Kaiser Permanente, Kresge Foundation, MacArthur Foundation, Nemours Prevention and Health, Rockefeller Foundation, W.K. Kellogg Foundation, and the California Endowment.

David L. Katz, MD, MPH, FACPM, FACP is the founding director (1998) of Yale University's Yale-Griffin Prevention Research Center, and current President of the American College of Lifestyle Medicine. He is a two-time diplomate of the American Board of Internal Medicine, and a board-certified specialist in Preventive Medicine/Public Health.

Walter Willett, MD, DrPH is a renowned physician, nutrition researcher, and Chair of the Department of Nutrition at the Harvard School of Public Health. He is also a Professor of Medicine at Harvard Medical School. He has published over 1,600 scientific articles regarding various aspects of diet and disease and is the second most cited author in all sciences.

Nutrition and Weight Management

Employer User Guide

2. Provide access to healthy foods and beverages in cafeterias and vending machines.

Lack of access to healthy foods is cited as one of the main barriers to a healthy diet, so providing employees with healthy options is critical to improving nutrition.¹ You should offer nutrient-dense healthy foods (listed in the previous section) and healthy beverage options like water, unsweetened flavored water, and skim milk in your cafeteria.² Price incentives and point-of-purchase displays, including labels that highlight healthy choices, can help make the healthy choice the easy choice for employees.¹ Vending machines should contain healthy options like water, 100% fruit juice, baked chips, and unsalted trail mix, which can be placed strategically to encourage consumption.¹⁸ The CDC offers a free, online [guide](#) with evidence-based plans employers can follow to ensure healthy foods are available in [company cafeterias](#) and [vending machines](#).

3. Provide healthy foods and beverages at meetings and events.

Healthy options in these venues further improve employee access, which can boost consumption, and surrounding employees with healthy options can create cultural norms that encourage healthy eating.¹ The American Heart Association provides a free, complete [toolkit](#) that offers specific guidance and nutrition standards for beverages, snacks, and meals at meetings and events.

4. Label nutrition information

Studies show that providing nutritional information on menus and signs increases awareness of the amount of calories being consumed as well as the purchasing of lower calorie options.¹⁹⁻²¹ Nutritional labels exert the most influence over the purchasing patterns of women and individuals with higher education and/or higher incomes.²¹ Visual cues, such as traffic lights or a heart symbol next to healthy items, can further reduce the number of calories consumed by employees.^{22,23}

Dr. Katz recommends pointing to specific healthy food choices for workers and their families, compared to unhealthy choices, and helping people understand food labels as an important reference point for what a healthy diet looks like. According to Dr. Katz, the food label literacy program [Nutrition Detectives](#), “has had a major impact in adults” despite being designed for children. Dr. Willett stresses that education in combination with other strategies may have even more impact. He cites pricing—both in terms of making healthy food less expensive and making unhealthy food more expensive—as an effective strategy for encouraging healthy food purchases, complementary to education programs.

5. Make the healthy option the default option.

Dr. Kettel Kahn suggests that while “you want to offer choices, there is also great benefit in not publicizing certain food choices – nudging people in a stealthy way to make healthy choices.” Dr. Kettel Khan says that passive interventions, like making the default option fortified or low fat/low sodium may not even be noticed by employees. “When you walk into the cafeteria,” she says, “the healthy choices should be more readily available, in essence the default. The employer can say, ‘that’s what we offer.’” However, she acknowledges that for some worksites—such as government offices—this is not an easy strategy to execute: it has taken the CDC many years to implement healthier options as the default.

There are other passive strategies, as well. Dr. Kettel Khan advocates for a gradual changeover in the food offerings of vending machines and food service venues, and Dr. Willett also suggests smaller plates as a way to reduce over-

Nutrition and Weight Management

Employer User Guide

consumption. According to Dr. Willett, however, “Choice architecture can be short lived.” He recommends constant tweaking of food displays to make them attractive. That way, workers establish good eating habits that eventually become internalized by the individual.

6. Provide access to and promote the consumption of water.

Water is recommended as a healthy alternative to sodas and other sweetened beverages, which are the largest source of added sugar in American diets.² You can improve access to water by adding drinking fountains, water filtration units, or water coolers to the workplace and by offering water in vending machines.

7. Provide access to commercially available diet and nutrition programs.

There is strong scientific evidence supporting the effectiveness of some commercial programs, such as Weight Watchers, Jenny Craig, and NutriSystem. Several randomized control trials (RCTs) have concluded that Weight Watchers is an effective weight loss program leading to significant levels of weight loss.⁷⁻¹⁰ The RCTs found that Weight Watchers is more effective than self-help classes, other commercial diets, and standard care. Two recent systematic reviews of RCTs support the conclusion that Weight Watchers is a best practice program, but one review suggests that Jenny Craig and NutriSystem are also effective.^{11,12} Another analysis concluded that many commercial programs lead to weight loss levels not inferior to those of Weight Watchers.¹³ However, in a cost-effectiveness study, Weight Watchers outperformed Jenny Craig, suggesting it may be the best program for employers with lower budgets.¹⁴ Finally, a recent study suggests that those who attend more sessions lose more weight, making engagement and retention critical to program success.¹⁵

8. Combine healthy nutrition and physical activity programs.

Physical activity and diet are the two main contributing factors to weight, so it makes sense to address them together.² Physical activity reduces many of the same risks addressed through improved eating habits with a few additions, including arthritis and mood disorders like anxiety and depression.²⁵ Furthermore, although most weight loss is the result of decreased caloric consumption, engaging in regular physical activity is crucial to maintaining that weight loss.²⁵

9. Build a culture of health.

Experts agree that simply offering programs at the worksite is not sufficient to promote lasting changes; programs must be supported by cultural changes. Dr. Laura Kettel Khan stresses that programs must be supported by both leadership and organizational policies to be successful, and cites an example from the CDC: “People write on their white board that they are out running, or going for a walk. That shows support by leadership for prevention and health promotion. There is a cultural acceptance and a need for [healthy behaviors like diet and exercise].”

Dr. Walter Willett further stresses the importance of establishing social norms. He offers the example of differing obesity rates around the world, even among high income countries in which almost everyone has access to a high amount of calories. The reason obesity rates differ, he argues, is that some countries have strong social norms promoting healthy nutrition, physical activity and fitness.

Other examples of culture changes, offered by Dr. Kettel Khan, include providing space for exercise and enacting policies that support taking time during the workday to exercise or allowing for walking meetings. She also cites

Nutrition and Weight Management

Employer User Guide

the success of farmers' markets and community gardens on the CDC campus, which provide an opportunity to "build community while people get to do things they love."

Dr. David Katz adds that "worksites need to look beyond their four walls: the basic unit of culture is the household." He stresses the need to make family-wide changes and offers on-site demonstrations of food preparation as an example. Demonstrations help build cooking skills, and providing employees with a family-friendly recipe box encourages them to make healthy meals at home.

SUMMARY

A healthy diet plays an important role in the health and wellbeing of both your employees and your business. Employees with healthy diets are at a reduced risk of many chronic conditions, and are less likely to be overweight or obese. A normal weight is associated with increased productivity, reduced absences, and reduced healthcare and disability costs.

To develop a successful nutrition and weight management program in the workplace, experts recommend that employers first promote credible guidelines for a healthy diet. They then recommend framing nutrition in terms of its effects on health, and sustaining educational programming over time. To solidify the culture of healthy eating in the workplace, employers should provide access to healthy foods and water in cafeterias, vending machines, and at meetings.

To make the default option the healthy option, experts recommend either labelling healthy options in combination with other intervention components (for example, price reductions), or using passive strategies to gradually introduce healthier options in cafeterias or vending machines. These choice architecture interventions can produce significant changes, but may need to be refreshed over time to maintain their impact.

Research supports the effectiveness of some commercial weight loss programs, especially Weight Watchers, at helping employees lose and maintain weight. Engagement and retention are key to the success of these programs.

Finally, experts emphasize the importance of embedding nutrition and weight management programs into the overall organizational culture – and existing health programs – to create lasting change and provide the support employees need to achieve health goals.

Employers who take these steps will maximize the likelihood of developing successful nutrition and weight management programs in the workplace, benefitting employees and businesses alike.

Nutrition and Weight Management

Employer User Guide

References

1. Centers for Disease Control and Prevention. The CDC Guide to Strategies to Increase the Consumption of Fruits and Vegetables. 1–53 (2011).
2. U.S. Department of Agriculture & U.S. Department of Health and Human Services. *Dietary Guidelines for Americans 2010*. (2010).
3. Dor, A., Ferguson, C., Langwith, C. & Tan, E. A Heavy Burden: The Individual Costs of Being Overweight and Obese in the United States. *Health Policy Manag. Fac. Publ.* (2010).
4. Kowlessar, N. M., Goetzl, R. Z., Carls, G. S., Tabrizi, M. J. & Guindon, A. The Relationship Between 11 Health Risks and Medical and Productivity Costs for a Large Employer. *J. Occup. Environ. Med.* **53**, 468–477 (2011).
5. Carls, G. S. *et al.* The Impact of Weight Gain or Loss on Health Care Costs for Employees at the Johnson & Johnson Family of Companies. *J. Occup. Environ. Med.* **53**, 8–16 (2011).
6. Henke, R. *et al.* The Relationship Between Health Risks and Health and Productivity Costs Among Employees at Pepsi Bottling Group. *J. Occup. Environ. Med.* **52**, 519–527 (2010).
7. Heshka, S. *et al.* Weight loss with self-help compared with a structured commercial program: a randomized trial. *JAMA* **289**, 1792–8 (2003).
8. Jebb, S. A. *et al.* Primary care referral to a commercial provider for weight loss treatment versus standard care: a randomised controlled trial. *Lancet Lond. Engl.* **378**, 1485–92 (2011).
9. Dansinger, M. L., Gleason, J. A., Griffith, J. L., Selker, H. P. & Schaefer, E. J. Comparison of the Atkins, Ornish, Weight Watchers, and Zone diets for weight loss and heart disease risk reduction: a randomized trial. *JAMA* **293**, 43–53 (2005).
10. Jolly, K. *et al.* Comparison of range of commercial or primary care led weight reduction programmes with minimal intervention control for weight loss in obesity: lighten Up randomised controlled trial. *BMJ* **343**, d6500 (2011).
11. Gudzone, K. A. *et al.* Efficacy of commercial weight-loss programs: an updated systematic review. *Ann. Intern. Med.* **162**, 501–12 (2015).
12. Atallah, R. *et al.* Long-term effects of 4 popular diets on weight loss and cardiovascular risk factors: a systematic review of randomized controlled trials. *Circ. Cardiovasc. Qual. Outcomes* **7**, 815–27 (2014).
13. Madigan, C. D., Daley, A. J., Lewis, A. L., Jolly, K. & Aveyard, P. Which weight-loss programmes are as effective as Weight Watchers(R)?: non-inferiority analysis. *Br. J. Gen. Pract. J. R. Coll. Gen. Pract.* **64**, e128–36 (2014).
14. Finkelstein, E. A. & Kruger, E. Meta- and cost-effectiveness analysis of commercial weight loss strategies. *Obes. Silver Spring Md* **22**, 1942–51 (2014).
15. Mitchell, N. S., Ellison, M. C., Hill, J. O. & Tsai, A. G. Evaluation of the effectiveness of making Weight Watchers available to Tennessee Medicaid (TennCare) recipients. *J. Gen. Intern. Med.* **28**, 12–7 (2013).

Nutrition and Weight Management

Employer User Guide

16. Mhurchu, C. N., Aston, L. M. & Jebb, S. A. Effects of worksite health promotion interventions on employee diets: a systematic review. *BMC Public Health* **10**, 62 (2010).
17. Anderson, L. M. *et al.* The effectiveness of worksite nutrition and physical activity interventions for controlling employee overweight and obesity: a systematic review. *Am. J. Prev. Med.* **37**, 340–357 (2009).
18. Philadelphia Department of Public Health and the Mayor’s Office of Sustainability. Snack Vending Standards. (2010).
19. Elbel, B., Kersh, R., Brescoll, V. L. & Dixon, L. B. Calorie labeling and food choices: A first look at the effects on low-income people in New York City. *Health Aff. (Millwood)* **28**, w1110–w1121 (2009).
20. Vadiveloo, M. K., Dixon, L. B. & Elbel, B. Consumer purchasing patterns in response to calorie labeling legislation in New York City. *Int. J. Behav. Nutr. Phys. Act.* **8**, (2011).
21. Bollinger, B., Leslie, P. & Sorensen, A. *Calorie posting in chain restaurants.* (2010).
22. Harnack, L. J. & French, S. A. Effect of point-of-purchase calorie labeling on restaurant and cafeteria food choices: A review of the literature. *Int. J. Behav. Nutr. Phys. Act.* **5**, 51 (2008).
23. Ellison, B., Lusk, J. L. & Davis, D. Looking at the label and beyond: The effects of calorie labels, health consciousness, and demographics on caloric intake in restaurants. *Int. J. Behav. Nutr. Phys. Act.* **10**, 21 (2013).
24. Steyn, N., Parker, W., Lambert, E. V. & Mchiza, Z. Nutrition interventions in the workplace: Evidence of best practice. *South Afr. J. Clin. Nutr.* **22**, 111 (2009).
25. Centers for Disease Control and Prevention. Healthy Weight: Physical Activity for a Healthy Weight. (2011).