

Healthy food at work



1 in 3 people globally suffer from at least one type of malnutrition: this brings significant losses in productivity and potential, and poses challenges to employers in both high-and-low income settings. Given that 58% of the world's population will spend one third of their time at work during their adult life, occupational health is a critical determinant of overall wellbeing. The workplace - whether in urban or rural, high-or-low income, corporate or supply chains - offers unique opportunities to address malnutrition.

In this series, GAIN outlines the evidence for the 4 most common workforce nutrition interventions.

This evidence brief focuses on healthy food at work, providing a review of the evidence for impact, best practices, and case studies.

Definition of 'healthy food at work' interventions

These are programmes which focus on increasing employees' access to healthy and safe foods at work. Employers may provide healthy food for free, with a subsidy, or at full cost to the employee. These programmes change the food environment through healthier canteen meals (some include promotion alongside options), snack offerings, vending machine options, more balanced portion sizes. All of these shape people's access to nutritious foods and encourage healthier choices.

Evidence of impact

The body of programmatic evidence on the impact of healthier food environments at work shows promising results.^{3,4} Whilst the settings for these programmes vary substantially, most studies show some form of improvement in either the diets or health status of workers.⁴

One of the most frequently cited improvements is an increase in workers' daily fruit consumption after changes in the physical food environment at work: this increase happened in a variety of settings.^{3,5} This is important because the Global Disease Burden Report highlights that a lack of consumption of fruits, whole grains, and over-consumption of sodium, accounted for more than 50% of deaths and 66% of Disability Adjusted Life Years (DALYs) attributable to diets in 2017.⁶

In factory settings, both in high-and-low income countries, dietary improvements to canteen meals were an effective way to improve employee health. In cases where underweight and micro-nutrient deficiencies were a problem, the provision of free healthy lunches saw improvements in weight gain, productivity, and morale. In one case, there



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Nutrition education



Nutrition-focused health checks



Breastfeeding support

was a 70% increase in factory production over 4 years, and a 20% increase in annual worker earnings.⁷ In one of GAIN's healthy food at work programmes, providing fortified healthy meals and/or iron-folic acid supplements resulted in 12-32% reductions in anaemia among factory workers.⁸ In another factory setting, where the main nutrition challenge for workers was overweight/obesity and associated health conditions, a healthy food at work intervention helped lower the risk of cardiovascular problems.⁹

It is important to assess the nutritional status of workers both before and during interventions: for example a large-scale Brazilian Worker's Food programme found that workers from participating companies gained more weight than was healthy, and so the programme needed to more swiftly adapt the food offering to avoid unintended consequences.¹⁰

Beyond directly making more nutritious food available at worksites, the evidence suggests that food packaging influences the food workers consume.^{11,12} Two studies found that providing calorie labelling made workers more likely to choose less energy-dense options.^{12,13}

However, another study did not find robust changes in the energy content of food workers bought after calorie labeling was introduced at several worksites; this showed that it is important to improve this approach through larger labels, amongst other things. ¹⁴ In one programme, a traffic light system for labelling healthy options guided workers towards healthier choices and resulted in improvements in their overall diets. ¹⁵ A common learning from most studies is that it is important to provide information to canteen staff and employees to ensure that they accept and endorse changes before and during the programme. ⁹

Direct success metrics

- Increased acceptance and accessibility of healthy food at work.
- Workers report that they consume more healthy foods (eg. fruits and vegetables).
- More appropriate intake of foods for which consumption should be limited (i.e. oils, salt, and refined sugars).
- Increased knowledge of the importance of healthy diets.



Best practices

- Healthy changes to canteen meals are best accepted and sustained over the long term when coupled with nutrition education.
- Portion size, plate size, display of foods available (e.g. removing unhealthy snacks from checkout), can improve the effectiveness of healthy food at work programmes.
- Making healthy vending machine options less expensive increased employee purchases.¹⁶
- Healthy Food at Work (HFW) programmes should continually assess workers' nutrition status to revisit programme design and goals.¹⁰
- Providing food directly can be more effective providing allowances for healthy foods.¹⁷
- Creating a positive food culture throughout the workplace enhances benefits to employees.¹⁵
- Ensuring there is well-established trust in canteen food safety makes healthy food at work programmes more acceptable to workers.¹⁸

Company examples (self-reported)

Danone offers free fruit, yogurt and water, health screenings, and promotes healthy diets and exercise as part of a broader wellness programme, and reports that all its actions on health, nutrition and sport have had a positive impact on absenteeism and employees' health (weight loss, fewer consultations for muscular pain, reduction of cholesterol levels, glycaemia, electrocardiogram alterations).

Grupo Éxito established a programme to increase access to fruit in the workplace and measured its effect on the perception of fruit consumption by employees. Sixty-four percent of the 2,399 surveyed employees reported increasing their fruit consumption as a result of the initiative.

Further information

For further information about the workforce nutrition programme, please visit **www.gainhealth.org**.

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References

- HLPE. Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. 152 (FAO, 2017).
- 2. WHO. WHO Global Plan of Action on Worker's Health (2008-2017): Baseline for Implementation. (2013).
- 3. Geaney, F. et al. The effectiveness of workplace dietary modification interventions: a systematic review. Prev. Med. 57, 438-447 (2013).
- 4. Schliemann, D. & Woodside, J. V. The effectiveness of dietary workplace interventions: a systematic review of systematic reviews. Public Health Nutr. 1–14 (2019). doi:10.1017/S1368980018003750
- 5. Lake, A. A. et al. Exploring the dynamics of a free fruit at work intervention. BMC Public Health 16, 839 (2016).
- 6. Afshin, A. et al. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. The Lancet 0. (2019).
- 7. Wanjek, C. Food at work: workplace solutions for malnutrition, obesity and chronic diseases. (ILO, 2005).
- 8. GAIN. Improving the Nutritional Status and Work Productivity of female Garment Workers in Bangladesh: A Pilot Study. (2017).
- 9. Thorsteinsson, R., Johannesson, A., Jonsson, H., Thorhallsson, T. & Sigurdsson, J. A. Effects of dietary intervention on serum lipids in factory workers. Scand. J. Prim. Health Care 12, 93–99 (1994).
- 10. Bezerra, I. W. L., Oliveira, A. G., Pinheiro, L. G. B., Morais, C. M. M. & Sampaio, L. M. B. Evaluation of the nutritional status of workers of transformation industries adherent to the Brazilian Workers' Food Program. A comparative study. PloS One 12, e0171821 (2017).
- 11. Pechey, R. et al. Impact of increasing the proportion of healthier foods available on energy purchased in worksite cafeterias: A stepped wedge randomized controlled pilot trial. Appetite 133, 286–296 (2019).
- 12. Lassen, A. D. et al. Effectiveness of offering healthy labelled meals in improving the nutritional quality of lunch meals eaten in a worksite canteen. Appetite 75, 128–134 (2014).
- **13.** Viera, A. J. et al. Effect of calories-only vs physical activity calorie expenditure labeling on lunch calories purchased in worksite cafeterias. BMC Public Health **19**, (2019).
- **14.** Vasiljevic, M. et al. Impact of calorie labelling in worksite cafeterias: a stepped wedge randomised controlled pilot trial. Int. J. Behav. Nutr. Phys. Act. **15**, (2018).
- **15.** Chen, H.-J. et al. The application of traffic-light food labelling in a worksite canteen intervention in Taiwan. Public Health **150**, 17–25 (2017)
- 16. Steyn, N. P., Parker, W., Lambert, E. V. & Mchiza, Z. Nutrition interventions in the workplace: Evidence of best practice. South Afr. J. Clin. Nutr. 22, (2009).
- 17. ILO. A comprehensive Approach to Improving Workplace Nutrition in Chile. (2012). Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---exrel/documents/publication/wcms_410562.pdf. (Accessed: 5th November 2018)
- **18.** Li, R., Wu, Y., Jing, L. & Jaacks, L. M. Enablers and barriers to improving worksite canteen nutrition in Pudong, China: a mixed-methods formative research study. BMJ Open **8**, e020529 (2018).