

CENTER FOR WORK, HEALTH, & WELL-BEING

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Northeastern University

All the Right Moves: Improving Health and Safety in Construction

The Center for Work, Health, & Well-being conducts groundbreaking research to study the effectiveness of workplace policies and practices designed to support and protect workers; and to demonstrate how an integrated approach targeting working conditions improves outcomes for employees and organizations.

The All the Right Moves (ARM) project focuses on the commercial construction industry – a highly dynamic work environment with significant physical hazards. As a result, workers are more prone to injuries, including musculoskeletal disorders, and high-risk health behaviors, such as diet. Both factors impact their health, productivity and ability to work. To improve the overall well-being of construction workers in a safe and healthy work organization and environment, the study used an integrated approach applied on construction worksites.

What is the All the Right Moves program?

Commercial construction sites in the Greater Boston area participated in All the Right Moves (ARM), designed to target the conditions of work and workers' health behaviors through a worksite-based injury prevention (ergonomics) program and a worksite-based health promotion Health Week intervention. The figure below summarizes these two main activities:

Intervention Components

1. A Soft Tissue Injury Prevention Program (StIPP) for six weeks

Worksite inspections and feedback

Identification of soft tissue injury hazards and ergonomic practices as well as solutions and records in a web-based tool

Task Pre-planning

Pre-task planning checklists were complemented with solutions for ergonomic and soft-tissue injury hazards

Supervisor training

Supervisors and safety managers received a training focused on solutions in ergonomics and injury hazards

Worker training

An "Ergonomics Toolbox Talk" with a few key messages from the supervisor training

2. Health Week

The goal of Health Week was to provide health education through Toolbox talks during breaks and engage workers in an opt-in coaching program to facilitate health behaviors. Topics covered:

- Benefits of health coaching
- Soft tissue injury prevention
- Smoking cessation
- Diet
- Physical activity
- Free health coaching by phone
- Free two-week supply of nicotine replacement therapy

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A Cluster Randomized Controlled Trial of a Total Worker Health® Intervention on Commercial Construction Sites¹

Background: Construction workers have higher rates of musculoskeletal disorders and chronic diseases related to obesity, lack of physical activity and smoking, compared to workers in other industries. Construction workers have high rates of chronic health issues – over 70% are overweight and 39% smoke. The high prevalence of musculoskeletal and cardiovascular disorders causes a sizable burden to employers and insurers, and contributes to work absenteeism, healthcare costs, work schedule delays, and high turnover.

Methods: This study evaluated the effectiveness of an integrated Total Worker Health® program called "All the Right Moves". This program targeted the conditions of work and workers' health behaviors through a worksite ergonomics program combined with a worksite-based health promotion Health Week intervention.

At all study sites, worker surveys were collected before and after the intervention as well as six months later. Using the surveys, the researchers evaluated the effect of the intervention on pain and injury, dietary and physical activity behaviors, smoking, ergonomic practices, and work limitations.

Results: Short-term improvements in ergonomic practices and in incidences of pain and injury were observed after the intervention. At six months, improvements included less physically demanding work, increased recreational physical activity and higher consumption of fruits and vegetables.

Conclusion: The All the Right Moves program had a positive impact at the individual level on the worksites with the program. For the longer term, the multi-organizational structure in the construction work environment needs to be considered to facilitate more upstream, long-term changes.

Peters SE, Grant MP, Rodgers J, Manjourides J, Okechukwu CA, Dennerlein JT. A Cluster Randomized Controlled Trial of a Total Worker Health® Intervention on Commercial Construction Sites. International Journal of Environmental Research and Public Health. 2018; 15(11):2354.