

Wholesale and Retail Trade: NORA Sector Council Bulletin: Fall 2010, Volume 1, Issue 3



We are listening!

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Inside the MMH workshop planning committee

Four Agenda Themes:

1. How is equipment used in the environment and what are some common user characteristics?
2. How do we show improved productivity and justify it?
3. What are the new technologies?
4. How do we justify and get support for these new tools?

Criteria for MMH:

1. Reduction in MSDs
2. Cost containment or cost neutral
3. Improvement in productivity

Manufacturers/vendors of MMH equipment need to hear from retailers, wholesalers, and ware-housing businesses about their equipment needs.

See two attachment for more details*

These are summary points that came from our 4th MMH planning call.

Do you need a ROI calculator?

To help practitioners better quantify the benefits of ergonomics, some have developed a cost-benefit calculator. Some of the best materials on business assessment of safety and health improvements or investments are not

Is your job affecting your health?

NIOSH research has confirmed that **“the workplace has become the single greatest source of stress,”** (Dr. Steven Sauter, NIOSH). We know that our jobs affect our sleep, and when and what we eat, if at all, and,



if we have time to exercise. This has important implications for worker health and safety. More than 70%

of survey respondents believe their jobs negatively affect their health (Center for Work-Life Policy, 2008). In addition, an increase in incidents of violence in the workplace or in workers' compensation claims may in many cases be related to excessive job stress. Further, **many of us are experiencing job burnout attributed to overwork and increased levels of stress.**

Not surprisingly, those working in the retail sector are at high-risk for stress and burnout. The risk is not just at the corporate levels, but it is experienced in different ways at each level down to the front line staff who serve the customers. What may in part contribute to stress and burnout among retail and other employees is that the concept of long term loyalty and a sense of corporate community may have eroded and been replaced by a performance culture that expects more and more from employees yet offers little security in return. Work stress, however, may pale in comparison to the stress of potentially losing a job. Hence, few of us feel free to choose our optimal work-life balance. **Yet, the long term consequences of work stress are a growing problem for employers as well as the employees.**

Symptoms of work stress are seen both physically and mentally. Persistent stress can result in cardiovascular disease, weaker immunity system,

really in the form of a “calculator”. This is because information to enter into calculators is difficult to find or unavailable. Also, some costs and benefits of safety and health investments are inherently difficult to quantify. Accordingly, some of these materials are more in the form of “worksheets”. Check out this site.

<http://www.pshfes.org/cba.htm>

Preventing Work-Related Musculoskeletal Disorders in Wholesale and Retail Trade Industry

NIOSH Study Findings: Wholesale and retail trade (WRT) workers are at risk for developing work-related musculoskeletal disorders (MSDs). NIOSH recommends appropriate engineering controls, work practices, hazard communications, and training to prevent MSDs.

Description of Hazards

A large portion of the WRT worker population is exposed to physical hazards known to be associated with MSDs. Physical (ergonomic) hazards are defined as work activities and/or workplace conditions that pose a risk of biomechanical stress for workers. A common hazard is manual material handling (MMH), including lifting, holding, putting down, pushing, pulling, carrying, and moving a load. Such hazards can often be avoided or reduced with simple solutions. MSDs arise from physical, organizational, and psychosocial hazards or risk factors. Risk factors may act separately, but the risk of MSDs is greater when several factors work together.

Risk Factors

- Physical: forceful exertions (gripping, pushing, twisting, etc.), repetitive motion, vibration, and awkward postures or non-neutral body posture
- Organizational and psychosocial: rapid work

frequent headaches, stiff muscles and backache, and digestive problems. **Mentally, chronic stress can result in poor coping skills, irritability, jumpiness, insecurity, exhaustion, concentration difficulties, anxiety and depression.** The Mayo clinic offers some sound advice for restoring a work-life balance that supports a healthier lifestyle. **READ MORE**

The NIOSH WorkLife Program

(<http://www.cdc.gov/niosh/worklife>) emphasizes the promotion of workplace programs, policies, and practices that result in healthier, more productive employees through a focus on disease prevention, health promotion, and accommodation to age, family, and life stage.

NIOSH Research and Projects

Workers Compensation Research & Order Picking Research



Workers Compensation Research

The Ohio Bureau of Workers Compensation (OBWC) and the National Institute for Occupational Safety and Health (NIOSH) are partnering on a number of research projects to improve health and safety in Ohio wholesale retail trade (WRT) companies:

- Workers compensation data trending for WRT sector 1999-2009
- Online survey tool to identify most effective safety and health management practices and programs
- Intervention studies (sponsored through the OBWC Safety Grant\$ program

<http://www.ohiobwc.com/employer/programs/safety/EmpGrants.asp>

where WRT companies will receive matching funds to put into place engineering controls and participate in follow-up studies to determine the effectiveness of the controls in reducing musculoskeletal disorders (MSDs) and slip/ trip/ falls (STFs)

Research Goals:

- Improve health and safety while reducing workers comp cases and costs for WRT companies
- Identify key safety/ health programs and interventions
- Share evidenced-based best safety/ health practices
- Provide wholesalers and retailers with valuable benchmarking

pace, long work durations, low autonomy and job satisfaction, scheduling without breaks

- Individual: medical history, physical capacity, age, gender, non-occupational causes

Description of Health Problems

The most common types of work-related injury and illness in the WRT industry are MSDs such as back injuries, sprains, and strains. In 2008, 22,770 workers in the wholesale sector and 46,640 workers in the retail sector experienced MSDs. The wholesale and retail sectors had high MSD incidence rates (38.7 and 38.3, respectively, compared with a mean of 33.4 for the all private sectors.

Work-related MSDs are disorders of muscles, tendons, joints, and nerves. All parts of the body can be affected, although the back and the upper limbs are the most commonly affected areas. Most work-related MSDs are cumulative, resulting from repeated exposures to high- or low-intensity loads over a long period of time. However, MSDs can also be acute strains, sprains, or tears resulting from overexertion. In 2008, data from the Bureau of Labor Statistics (BLS) reveal that 32.3% of wholesale workers and 31.2% of retail workers report suffering from backache and muscular pains from overexertion.

information on company performance for safety/ health

Participation in these projects is voluntary.

If you have any questions or would like additional information, please contact: Steve Wurzelbacher, PhD, CPE, NIOSH (513) 841-4322

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Order Picking Research

During the last decade, there has been a rapid evolution of order picking technologies used in retail distribution warehouses. Improvements in speech-to-text and text-to-speech technology have made the application of voice systems more feasible. As a result, paper-based checklists and electronic product scanners are being replaced with wireless voice-directed systems. Companies that have switched to voiced-directed picking systems have seen faster and more accurate order picking. But this increase in efficiency may have come with some unintended costs. For example, many distribution centers still struggle with persistent safety and performance challenges, including incidents of musculoskeletal and traumatic injuries, and costs associated with performance errors and product damage. Other than a few anecdotal case studies or industry white papers, there have been no published scientific studies on the performance, health, and safety effects of the newer voice-directed order picking technologies.

To fill this gap in the scientific literature, in-depth retrospective and prospective studies will be conducted across several large retail distribution centers. Performance data measured and recorded by a voice-directed order-picking system and other data obtained from production and safety records will be analyzed to reveal potentially important associations between elements of the order-picking process and various outcomes related to performance, health, and safety. Factors to be studied include ergonomics, work organization, production standards, incentives, training, and safety culture.

Research Objectives

- Study the health, safety, and performance-related effects of a voice-directed manual order-picking operation in retail distribution centers.
- Identify elements of order-picking processes that are predictive of adverse performance, health, and safety outcomes.

If you have any questions or would like additional information, please contact: Oliver Wirth, PhD, NIOSH (304) 285-6323 owirth@cdc.gov

[READ MORE](#)

About NIOSH: As part of the Centers for Disease Control and Prevention, NIOSH is the Federal agency responsible for conducting research and making recommendations to prevent work-related illnesses and injuries. To receive NIOSH documents or more information about occupational safety and health topics, please contact NIOSH at 1-800-CDC-INFO (1-800-232-4636) TTY: 1-888-232-6348 Email: cdcinfo@cdc.gov Website: www.cdc.gov/niosh/

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