THE HEALTHIEST NIOSH EXPERIENCE: THE ESSENTIAL ROADMAP TO DEVELOPING YOUR OWN TOTAL WORKER HEALTH® PROGRAM

Constance Franklin, MPA
Kellie M Pierson, MS

National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention

Total Worker Health® 2nd Internal Symposium
Bethesda, MD
May 8, 2018

The findings and conclusions in this presentation are those of the author(s) and do not necessarily represent the official position of the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.
NIOSH is dedicated to preserving and enhancing the **Total Health of Workers**

**OSHA Act of 1970. SEC. (2) (b) . . . to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources . . .**
Federal Government & Worker Health

Occupational Safety and Health Standards-Setting & Enforcement

Department of Labor (DOL)

- MSHA
- OSHA

Research and Authoritative Recommendations

Department of Health and Human Services (HHS)

- Centers for Disease Control and Prevention (CDC)

NIOSH
Outline

• **WHAT’S AFFECTING WORKER SAFETY AND HEALTH TODAY?**

• **THE TOTAL WORKER HEALTH® SOLUTION**

• **PUTTING TOTAL WORKER HEALTH® (TWH) INTO PRACTICE**

• **CDC WORKPLACE INITIATIVE AND RESOURCES**

• **GROUP ACTIVITY**

• **GUIDELINES AND RESOURCES**
What’s Impacting Worker Health Today?
Annually, employers report:

Over **5,000** deaths from work-related injuries across industries

Estimated **53,000** deaths from work-related illnesses

---


Number and Rate of Fatal Work Injuries by Industry Sector, 2016

- Construction: 991 injuries, 10.1 rate
- Transportation and warehousing: 825 injuries, 14.3 rate
- Agriculture, forestry, fishing and hunting: 593 injuries, 23.2 rate
- Professional and business services: 540 injuries, 3.1 rate
- Government: 497 injuries, 2.2 rate
- Manufacturing: 318 injuries, 2.0 rate
- Leisure and hospitality: 298 injuries, 2.6 rate
- Retail trade: 282 injuries, 1.9 rate
- Other services (exc. public admin.): 223 injuries, 3.2 rate
- Wholesale trade: 179 injuries, 4.8 rate
- Educational and health services: 159 injuries, 0.7 rate
- Financial activities: 117 injuries, 1.2 rate
- Mining, quarrying, and oil and gas extraction: 89 injuries, 1.7 rate
- Information: 46 injuries, 1.7 rate
- Utilities: 30 injuries, 2.8 rate

Total fatal work injuries = 5,190
All-worker fatal injury rate = 3.6

Civilian occupations with high fatal work injury rates, 2016

- Logging workers: 91 injuries, 135.9 rate
- Fishers and related fishing workers: 24 injuries, 86.0 rate
- Aircraft pilots and flight engineers: 75 injuries, 55.5 rate
- Roofers: 101 injuries, 48.6 rate
- Refuse and recyclable material collectors: 31 injuries, 34.1 rate
- Structural iron and steel workers: 16 injuries, 25.1 rate
- Driver/sales workers and truck drivers: 918 injuries, 24.7 rate
- Farmers, ranchers, and other agricultural managers: 260 injuries, 23.1 rate
- First-line supervisors of construction trades and extraction workers: 134 injuries, 18.0 rate
- Grounds maintenance workers: 217 injuries, 17.4 rate

Total fatal work injuries = 5,190
All-worker fatal injury rate = 3.6


CDC NIOSH
Top 10 Causes and Direct Costs of the Most Disabling U.S. Workplace Injuries

2017 Liberty Mutual Workplace Safety Index

Total cost of the most disabling workplace injuries: $59.87 billion
Cost of top 10 most disabling workplace injuries: $49.92 billion

<table>
<thead>
<tr>
<th>Cause</th>
<th>Direct Cost (Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overexertion involving outside sources</td>
<td>$13.79</td>
</tr>
<tr>
<td>Falls on same level</td>
<td>$10.62</td>
</tr>
<tr>
<td>Falls to lower level</td>
<td>$5.50</td>
</tr>
<tr>
<td>Struck by object or equipment</td>
<td>$4.43</td>
</tr>
<tr>
<td>Other exertions or bodily reactions</td>
<td>$3.89</td>
</tr>
<tr>
<td>Roadway incidents involving motorized land vehicle</td>
<td>$3.70</td>
</tr>
<tr>
<td>Slip or trip without fall</td>
<td>$2.30</td>
</tr>
<tr>
<td>Caught in/compressed by equipment or objects</td>
<td>$1.95</td>
</tr>
<tr>
<td>Struck against object or equipment</td>
<td>$1.94</td>
</tr>
<tr>
<td>Repetitive motions involving micro-tasks</td>
<td>$1.81</td>
</tr>
</tbody>
</table>

https://www.libertymutualgroup.com/about-liberty-mutual-site/research-institute-site/Documents/2017%20WSI.pdf
$250,000,000,000
Annual cost of work-related illness, injury, and fatality
Deadly Threats
The world’s **3.2 billion** workers are increasingly unwell

**They face significant economic insecurity.**

- 74% Live on less than $13 per day
- 45% Work in low-skill or manual occupations
- 77% Work in part-time, temporary, “vulnerable,” or unpaid jobs

**They are growing older and less healthy.**

- 18% Of labor force over 55 by 2030
- 52% Of adults overweight or obese
- 9% Of adults with diabetes
- 76% Are “struggling” or “suffering” in their physical wellbeing

**They are stressed, unhappy, and even unsafe at work.**

- 38% Suffer from excessive pressure on the job
- 24% Are actively disengaged at work
- 2.3M Annual work-related deaths
- 313M Annual work-related accidents

Source: ILO, WHO, Gallup, Gallup-Healthways, Towers Watson, Tampere University of Technology/Workplace Safety & Health Institute Singapore/VTT Technical Research Centre of Finland
The health of workers is tied to the health and productivity of organizations.\(^4\)
The Number of People with Chronic Conditions is Rapidly Increasing


The Cost of Chronic Disease and Health Risk Behaviors

- **Cancer**
  - > 500,000 deaths, 1.5M new cases/yr
  - $157B care cost in medical costs

- **Diabetes**
  - >30M cases of diabetes, 33M cases of prediabetes
  - $176B direct medical cost, $69B for lost work & productivity

- **Cardiovascular Disease**
  - 366,000 deaths/yr
  - $189B direct medical cost, $126B for lost work & productivity

- **Tobacco-Related**
  - 480,000 deaths/yr
  - $170B direct medical costs, $156B for lost work & productivity

- **Obesity**
  - 84M of Americans (adult) are overweight or obese
  - Annual US health cost of obesity: $147 Billion

- **Aging-Related**
  - Population aged 65 and over is projected to increase
Common Risk Factors

- High blood pressure.
- Tobacco use and exposure to secondhand smoke.
- Obesity (high body mass index).
- Physical inactivity.
- Excessive alcohol use.
- Diets low in fruits and vegetables.
- Diets high in sodium and saturated fats.

https://www.cdc.gov/chronicdisease/resources/publications/four-domains.htm
Obesity

1 in 4 Adult Americans

http://www.cdc.gov/obesity/data/adult.html
Does Work Make Employees Fat?
How Can Work Be Improved to Reduce Obesity?

Change in waist circumference by job strain group [Ishizaki et al. 2008]

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1805035/
# Obesity by Occupation

A sampling of U.S. jobs and the prevalence of obesity in that occupational group

<table>
<thead>
<tr>
<th>Sample Jobs</th>
<th>Obesity Rate for Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGHEST</strong></td>
<td></td>
</tr>
<tr>
<td>Police officers, firefighters, security guards</td>
<td>40.7%</td>
</tr>
<tr>
<td>Social workers, clergy, counselors</td>
<td>35.6%</td>
</tr>
<tr>
<td>Home health aides, massage therapists</td>
<td>34.8%</td>
</tr>
<tr>
<td>Architects, engineers</td>
<td>34.1%</td>
</tr>
<tr>
<td>Bus drivers, truckers, crane operators, garbage collectors</td>
<td>32.8%</td>
</tr>
<tr>
<td><strong>LOWEST</strong></td>
<td></td>
</tr>
<tr>
<td>Janitors, maids, landscapers</td>
<td>23.5%</td>
</tr>
<tr>
<td>Cooks, bartenders, food servers</td>
<td>23.1%</td>
</tr>
<tr>
<td>Physicians, dentists, EMTs, nurses</td>
<td>22.0%</td>
</tr>
<tr>
<td>Artists, actors, athletes, reporters</td>
<td>20.1%</td>
</tr>
<tr>
<td>Economists, scientists, psychologists</td>
<td>14.2%</td>
</tr>
</tbody>
</table>

Average U.S. worker: 27.7%

Note: Obesity defined as body mass index of 30 or above

Source: American Journal of Preventive Medicine's 2014 report based on 2010 data

The Wall Street Journal
Work environment factors and smoking [Radi et al. 2007]

![Bar chart showing current smokers in men and women categorized by work strain and smoking status. The chart indicates higher percentages of current smokers in high-strain jobs compared to low-strain jobs, with a notable difference between active and passive smoking.](www.uml.edu/centers/CPH-NEW)
How Can Work Be Improved to Reduce Smoking?

"You need to go home, take a long relaxing bath surrounded by aromatic candles and do an hour of yoga; but that’s out of the question. How about a five minute smoking break?"
Workplace Stress

What Workers Say About Stress on the Job

Survey by Northwestern National Life

Percentage of workers who report their job is “very or extremely stressful.”

Survey by the Families and Work Institute

Percentage of workers who report they are “often or very often burned out or stressed by their work.”

Survey by Yale University

Percentage of workers who report they feel “quite a bit or extremely stressed at work.”

https://www.cdc.gov/niosh/docs/99-101/default.html
Impacts to the Future Workforce

Chart 2. Annual growth rate in labor force by age, projected 2014-24 (percent)

16 to 24
25 to 34
35 to 44
45 to 54
55 to 64
65 to 74
75 and older

Hover over chart to view data.


Original Article

Contribution of health status and prevalent chronic disease to individual risk for workplace injury in the manufacturing environment

Jessica Kubo,1 Benjamin A Goldstein,1 Linda F Cantley,2 Baylah Tessier-Sherman,2 Deron Galusha,2 Martin D Slade,2 Isabella M Chu,3 Mark R Cullen3

ABSTRACT

Objectives An ‘information gap’ has been identified regarding the effects of chronic disease on occupational injury risk. We investigated the association of ischaemic heart disease, hypertension, diabetes, depression and asthma with acute occupational injury in a cohort of manufacturing workers from 1 January 1997 through 31 December 2007.

Methods We used administrative data on real-time injury, medical claims, workplace characteristics and demographics to examine this association. We employed a piecewise exponential model within an Andersen–Gill framework with a frailty term at the employee level to account for inclusion of multiple injuries for each employee, random effects at the employee level due to correlation among jobs held by an employee, and experience on the job as a covariate.

Results One-third of employees had at least one of the diseases during the study period. After adjusting for potential confounders, presence of these diseases was associated with increased hazard of injury: heart disease (HR 1.23, 95% CI 1.11 to 1.36), diabetes (HR 1.17, 95% CI 1.08 to 1.27), depression (HR 1.25, 95% CI 1.08 to 1.45), and asthma (HR 1.20, 95% CI 1.10 to 1.31).

What this paper adds

► Despite an aging population, there is scant literature on the effects of chronic disease on occupational injury risk.
► Some studies have shown higher risk of injury for those with depression, obesity, diabetes and asthma.
► We investigated the association of ischaemic heart disease, hypertension, diabetes, depression, asthma and acute occupational injury in a cohort of manufacturing workers for a 10-year period between 1997 and 2007.
► After adjusting for potential confounders, presence of these diseases was significantly associated with increased hazard of injury: heart disease (HR 1.23), diabetes (HR 1.17), depression (HR 1.25) and asthma (HR 1.14).

On our results suggest that chronic heart disease, diabetes and depression confer an increased risk for acute occupational injury. Employees may benefit from strategies to reduce chronic
Workers’ risk of disease may be increased by exposure to both occupational hazards and individual risk-related behaviors.
The *Total Worker Health®* Solution
What is Total Worker Health®

Policies, programs, & practices that integrate **protection from work-related safety & health hazards** with **promotion of injury & illness prevention efforts** to advance worker well-being.
Total Worker Health®

Keep Workers Safe

Establish workplace policies, practices and programs that grow health

Create Worker Well-being
New Employment Patterns

Policy Issues

Changing Workforce Demographics

Organization of Work

Control of Hazards and Exposures

Built Environment Supports

Compensation and Benefits

Leadership

Community Supports
What Total Worker Health Is NOT

• TWH is **not** a “wellness program” that has been implemented without simultaneously providing safe and healthful working conditions
• TWH is **not** an “add-on” collection of health promotion efforts at a workplace where the very way that work is designed contributes to worker injuries and illness.
• TWH is **not** consistent with workplace policies that discriminate against or penalize workers for their health conditions or create disincentives for improving health.
• TWH is **not** a “wellness program” that does not ask employees for their input on their work circumstances

Adapted from Opening Keynote, John Howard, Director of NIOSH, October 2014. Bethesda, MD.
Policies, programs, & practices that integrate protection from work-related safety & health hazards with promotion of injury & illness prevention efforts to advance worker well-being
Policies, programs, & practices that integrate protection from work-related safety & health hazards with *promotion* of injury & illness prevention efforts to advance worker *well-being*
Keeping Workers Safe is Fundamental to Total Worker Health

Hierarchy of Controls Applied to NIOSH Total Worker Health®

- **Eliminate**
  - Eliminate working conditions that threaten safety, health, and well-being
- **Substitute**
  - Substitute health-enhancing policies, programs, and practices
- **Redesign**
  - Redesign the work environment for safety, health, and well-being
- **Educate**
  - Educate for safety and health
- **Encourage**
  - Encourage personal change

Individually-Focused Behavior Change Interventions Not Enough

“It is unreasonable to expect people to change their behavior when the social, cultural and physical environments around them fully conspire against them....”

Adapted from M. Marmot/Institute of Medicine Report
Protecting Workers Is the Cornerstone of *Total Worker Health*
What do you *mean* by an Integrated Approach?
COLLABORATIVE EFFORT

• Goal: align all initiatives focused on worker health to reduce duplicated efforts,
  – Optimize budgets
  – Utilize Limited Resources
  – Amplify the impact of all programs involved

• Bringing all of these groups together is the best way to systematically;
  – Gain insight from all interested parties and
  – Assure that the program is relevant
An Integrated Approach

- Well-Being
- Safety and health
- Employee benefits
- Human resources

Link across systems
Designing an integrated approach

Address objectives on multiple levels

Organizational policies, programs, management system

Physical & Psychosocial environment

Individual supports

Community-level & Family linkages
Benefits of an integrated approach

- Reduce redundancies
- Streamline costs
- Share budgets
- Share programming
THE COMMITTEE

Director of Occupational Health and Safety (OHS)

OHS Manager

Worker Representative

Workman's Compensation Representative

Human Resource Representative

Organizational Development Representative

Director of Benefits & Wellness

Health & Wellness Manager

Employee Assistance Program

Risk Management
Why Implement an Integrated Approach?

Interdependent Effects

• Workers may perceive changes in health behaviors as futile in the face of significant occupational exposures.

• Management efforts to create a healthy work environment may
  – Increase workers’ motivations to modify personal health behaviors
  – Foster trust that may support workers’ receptivity to messages.

Sorensen et al, AJPH 2010; IOM, Integrating Employee Health 2005
Potential Impact

• Reduction in Workplace Injuries
• Safer, Healthier, and Productive Employees
• Improved Worker Job Satisfaction
• Enhanced Organizational Culture (Trust, Safety, Health)
• Happier, Less Stressful, and More Prosperous Business Environment
• Reduction in Work-related Stress
• Improved Health Decisions
• Reduction in Health Care Costs
• Community Gains
# Issues Relevant to Advancing Worker Well-being Through Total Worker Health®

## Control of Hazards and Exposures
- Chemicals
- Physical Agents
- Biological Agents
- Psychosocial Factors
- Human Factors
- Risk Assessment and Risk Management

## Organization of Work
- Fatigue and Stress Prevention
- Work Intensification Prevention
- Safe Staffing
- Overtime Management
- Healthier Shift Work
- Reduction of Risks from Long Work Hours
- Flexible Work Arrangements
- Adequate Meal and Rest Breaks

## Built Environment Supports
- Healthy Air Quality
- Access to Healthy, Affordable Food Options
- Safe and Clean Restroom Facilities
- Safe, Clean and Equipped Eating Facilities
- Safe Access to the Workplace
- Environments Designed to Accommodate Worker Diversity

## Leadership
- Shared Commitment to Safety, Health, and Well-Being
- Supportive Managers, Supervisors, and Executives
- Responsible Business Decision-Making
- Meaningful Work and Engagement
- Worker Recognition and Respect

## Compensation and Benefits
- Adequate Wages and Prevention of Wage Theft
- Equitable Performance Appraisals and Promotion
- Work-Life Programs
- Paid Time Off (Sick, Vacation, Caregiving)
- Disability Insurance (Short- & Long-Term)
- Workers’ Compensation Benefits
- Affordable, Comprehensive Healthcare and Life Insurance
- Prevention of Cost Shifting between Payers (Workers’ Compensation, Health Insurance)
- Retirement Planning and Benefits
- Chronic Disease Prevention and Disease Management
- Access to Confidential, Quality Healthcare Services
- Career and Skills Development

## Community Supports
- Healthy Community Design
- Safe, Healthy and Affordable Housing Options
- Safe and Clean Environment (Air and Water Quality, Noise Levels, Tobacco-Free Policies)
- Access to Safe Green Spaces and Non-Motorized Pathways
- Access to Affordable, Quality Healthcare and Well-Being Resources

## Changing Workforce Demographics
- Multigenerational and Diverse Workforce
- Aging Workforce and Older Workers
- Vulnerable Worker Populations
- Workers with Disabilities
- Occupational Health Disparities
- Increasing Number of Small Employers
- Global and Multinational Workforce

## Policy Issues
- Health Information Privacy
- Reasonable Accommodations
- Return-to-Work
- Equal Employment Opportunity
- Family and Medical Leave
- Elimination of Bullying, Violence, Harassment, and Discrimination
- Prevention of Stressful Job Monitoring Practices
- Worker-Centered Organizational Policies
- Promoting Productive Aging

## New Employment Patterns
- Contracting and Subcontracting
- Precarious and Contingent Employment
- Multi-Employer Worksites
- Organizational Restructuring, Downsizing and Mergers
- Financial and Job Security

---

November 2015

Total Worker Health® is a registered trademark of the US Department of Health and Human Services
TWH Policies, Programs and Practices

- Worker-centered operations
- Worker participation in workplace problem solving
- Paid family & sick leave, paid medical benefits
- Equitable wages, safe staffing levels, voluntary overtime
- Discrimination, harassment, and violence prevention
- Health-enhancing work organization and healthier supervision
- Work-intensification prevention
- Respect, fair performance appraisals & advancement opportunities
- Attention to work-life Integration
- Recognition of work factors as potential causes of chronic conditions
- Confidential occupational health and prevention services
- Programs to help workers manage their health challenges
- Support for productive aging across the working life span
Group Discussion

1. How do you think a *Total Worker Health* approach could apply to your organization?

2. What barriers to implementation would you anticipate facing?
STRETCH BREAK
The Healthiest NIOSH Program focuses on optimizing the health, safety and well-being of all those working at NIOSH.
Worker well-being is an integrative concept that characterizes quality of life with respect to an individual's health and work-related environmental, organizational, and psychosocial factors. It is the experience of positive perceptions and the presence of constructive conditions at work and in other areas of life that enables workers to thrive and achieve their full potential.

Developed in partnership with RAND.
Mission to nurture and grow a strong, integrated, leadership-supported safety, health and well-being program for all people working at NIOSH

Vision A thriving, wide-spread culture of health, safety and well-being for all people working at NIOSH
HealthiestNIOSH Advisory Committee (HNAC)

- Provide input on projects, practices, and policies related to the safety, health and well-being for all those working at NIOSH.
- Assist the program in strengthening the health, safety, and well-being opportunities and services for all people working at NIOSH.
- Work to better integrate, coordinate and promote participation in existing and new occupational health, safety, well-being and related activities.
HealthiestNIOSH Advisory Committee (HNAC)

- Provide support for the implementation of HealthiestNIOSH activities and serve as a liaison to divisions, labs and offices.
- Increase awareness, engagement and communications related to HealthiestNIOSH philosophies, strategies, information, and initiatives.
- Team with local NIOSH management, safety officials and labor representatives to implement the program’s goals.
Sit-Stand Workstation Program
Walking Workstation Program
Standing Conference Room Table Program
WEAR THIS BIOSENSOR SO MANAGEMENT CAN MONITOR YOUR HEALTH DURING THE DAY.

WOW. I DIDN’T KNOW YOU CARED SO MUCH ABOUT MY HEALTH.

OH, I DO.

EMPLOYEE 479 DOESN’T HAVE SHALLOW BREATHING. YOU CAN GIVE THAT ONE SOME MORE WORK.
Healthiest NIOSH Assessment

How NIOSH can become a safer, healthier, better place to work?

• **Goals**
  
  • Employee input – what safety, health and well-being programs matter to you?
  
  • Clearer picture of the resources and amenities already available on various campuses related to safety, health and well-being.
HealthiestNIOSH Assessment

• What additional safety, health and well-being resources you would like to see be made available on your campus?
• Ideas for future projects or health opportunities within the HealthiestNIOSH program.
HealthiestNIOSH Assessment

• Provide guidance on what might improve participation in HealthiestNIOSH initiatives.

• Give thoughts on the best way to deliver safety, health and well-being messages to you.
**HealthiestNIOSH Assessment**

**Results**
- **420** Number of NIOSH workers who participated in part or all of the assessment
- **241** Female Respondents
- **170** Male Respondents

**Survey respondents by age**

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>94</td>
</tr>
<tr>
<td>30-39</td>
<td>68</td>
</tr>
<tr>
<td>40-49</td>
<td>102</td>
</tr>
<tr>
<td>50-59</td>
<td>138</td>
</tr>
<tr>
<td>60-69</td>
<td>61</td>
</tr>
<tr>
<td>70-79</td>
<td>5</td>
</tr>
</tbody>
</table>

- **66%** of employees report that their supervisor is very supportive in allowing employees to participate in safety, health, and well-being activities while at work.
- **60%** of employees report that they get the recommended 150 minutes of moderate-intensity aerobic activity per 7-day week most weeks.
- **58%** of employees report that their campus environment is very safe...
- **26%** of employees who report that their campus environment is very healthy.
- **63%** of respondents who found information presented at the health and safety fair helpful.
Healthier Supervision Webinars

TOPICS

• Strategies for Work-life integration
• Healthier performance management skills
• Managing a diverse workforce
• Assisting workers with disability, chronic illness
• Optimizing flexibility
• Improving the environment for increasing employee engagement
• Improving communication skills
• Better ways to use rewards and recognition
Healthier Supervision Webinars

- Get to know yourself better, identify your strengths and play them up while working on your weaker skills
- Actively communicate every day with your colleagues and teams
- Work on transparency; share as much as you can as often as you can
- Set clear expectations of your team members, check in often, and be willing to reset
- Intervene early when problems or team member challenges or issues arise
- Recognize and reward your team members every day
- Attend to work-life-family issues, both your own and your team members'
- Learn new things; enhance your own leadership skills regularly and support your team in continuous learning and development
- Get help when you need it from colleagues or experts
The HealthiestNIOSH Program focuses on optimizing the safety, health and well-being of all people working at NIOSH by improving the workplace environment, policies and programs, and by increasing the number of health opportunities available to our staff. HealthiestNIOSH is sponsored by the Office for Total Worker Health® and serves as a living laboratory for pilot interventions integrating safety and health.

Program Information
Learn more about HealthiestNIOSH, our internal Total Worker Health Program

HealthiestNIOSH Benefits
Learn more about our health and well-being coaching, walking workstation, sit-stand, and standing conference room table

Safety and Protection
Learn about NIOSH policy/procedures, safety and protection, and training

Fitness / EAP / Webinars
Learn more about site-specific fitness facilities/activities, EAP information and recorded webinars can be found here

Resources and Links
See additional resources on nutrition, older workers, physical activity, sleep, and stress

Calendar
See a list of monthly well-being events happening around NIOSH and CDC
HealthiestNIOSH WebPage

Benefits

To learn more about HealthiestNIOSH benefits, please click on one of the links below.

- Health & Well-being Coaching (Beginning in early 2018)
- Sit-Stand Workstation
- Standing Conference Room Table
- Walking Workstation

HealthiestNIOSH Coordinators:
Constance Franklin
(404) 498-2528
Kellie Pierson
(513) 533-8189

Feedback/Suggestions
Site-Specific Safety and Protection Information

To access NIOSH safety, training, and procedures for your specific location, please click on one of the links below:

- Anchorage (coming soon)
- Atlanta
- Cincinnati
- Denver (coming soon)
- Morgantown
- Pittsburgh
- Spokane
- Washington, D.C.
- [CDC Workplace Safety](#) - this link is applicable to NIOSH Atlanta
- [Safety Points of Contact](#)

HealthiestNIOSH Coordinators:

- **Constance Franklin**
  - (404) 498-2528

- **Kellie Pierson**
  - (513) 533-8189

[Feedback/Suggestions]
Health & Well-being Coaching

What is Health and Well-being Coaching?

Health and well-being coaching is a client-centered process to facilitate and empower you to achieve self-determined goals related to health and well-being. Health and well-being coaches don’t tell you what to do; they guide you to where you want to be. By identifying your internal strengths and external resources, you can make sustainable lifestyle changes to improve your overall well-being. Ultimately, health and well-being coaching guides, supports, hold clients accountable, and ensures that they receive continued motivation to help them achieve their well-being goals and eliminate unhealthy behaviors in their lives.

Who is a Well-being Coach?

Certified Health and Well-being Coaches are professionals from diverse backgrounds and education who work with individuals and groups in a client-centered process to facilitate and empower the client to achieve self-determined goals related to health and well-being. Successful coaching takes place when coaches apply clearly defined knowledge and skills so that clients mobilize internal strengths and external resources for sustainable change.

Can I Benefit from Health and Well-being Coaching?

Do you want to get in shape, lose weight, exercise more, eat healthier, reduce stress, quit smoking, eliminate an unhealthy habit or simply create balance in your life? If so, health and well-being coaching is for you and our certified coaches will work with you individually to help reach your health and well-being goals.

Download Overview of HealthiestNIOSH Coaching

Meet HealthiestNIOSH’s Certified Health and Well-being Coaches:

Constance Franklin, MPH, CHWC

Kellie M. Pierson, MS, CHWC
NIOSH Mental Health Awareness Day

- 930am – 4pm
- Focused on identifying anxiety, depression
  - How it looks in the workplace
- Screening tools and resources
- Meditation Breaks
- Employee Assistance Program (EAP) information
- Supervisory Credit Available
CDC INITIATIVE AND RESOURCES
Healthiest CIO Challenge

Focus: Nourish: Mind | Body | Community

Last year brought 3,300 Challenge participants together to get Nourished. We completed over 4 million minutes of physical activity and earned nearly 600,000 points!
Healthiest CIO Challenge

Find your BALANCE.
FUEL. CONNECT. DE-STRESS.
How do you find BALANCE?
April 16 - May 27
Healthiest CIO Challenge Kick-Off
CDC Staff Wellness Policy

- Establishes an opportunity for staff to plan their work schedule with their supervisor around well-being needs.
- Encourages staff to engage in wellness activities around their work days to improve their morale, overall health, readiness, and performance.
- Confirms CDC’s support of identifiable public health goals for all U.S. citizens, including its workforce.
- Provides management the flexibility to adjust staff work schedules.
Work and Life: Acknowledge the Balancing Act
Bike to Work Day: cyclists at NIOSH Cincinnati, enjoying a beautiful May day
3rd Annual Men’s Health 5K Run/Walk
Available on official CDC Campuses
Smoke-Free Campus

To Protect Everyone's Health

CDC is a Tobacco-Free Campus

Use of All Tobacco Products, Including E-Cigarettes, is Prohibited. Everywhere. Everyone. At All Times.

Want help quitting?
1-800-QUIT-NOW
www.smokefree.gov
CDC Health Days 2017
Lactation Support

• Since 1996
  – Lactation Rooms
  – Breastfeeding Seminars
  – Telephone Counseling
  – Return to Work Consultation
  – Discussion Groups
  – Breastfeeding Parents Listserv

– WorldatWork Alliance for Work-Life Progress has presented CDC’s work-life benefits and wellness programs, which includes the lactation support program, with their annual Seal of Distinction is awarded to an organization that demonstrates leadership in workplace strategies and practices to help its employees achieve success in work-life effectiveness.
PHILANDER SMITH COLLEGE NURSING NOOK
Created by
Brittany Taylor, Miss Philander Smith College 2017-2018
Major Sponsors:
Oliver and Dr. Joycelyn Elders
Sherman Tate
Arkansas Department of Health-Office of Minority Health & Health Disparities
Meitzenheimer Design Group
PROMISING PRACTICE:
L.L. BEAN CASE STUDY
Introduction

THE PROBLEM

• Older workers
• Aging in place
• High risk jobs
• More limited flexibility or strength
• Limited joint range of motion
• Increased abdominal girth

GOAL

• Keep employees working safely as they age
Health Impact of Aging

• **Increase in chronic disease** such as diabetes and hypertension that may increase health care costs.

• Older workers typically have a **decrease in flexibility, strength and lean body mass**.

• **Muscle flexibility drops** by about 5% per decade of life. This means that older workers may have more difficulty bending forward, reaching or twisting than younger ones.

• **Muscle strength declines** by 10 - 20% between the ages of 20 and 50. **And further declines to 25 - 30%** between ages 50 and 70.
Health Impact of Aging

- **Lean body mass begins to decline** by 2 to 3% every 10 years starting at age 30.

- **But it gets worse 😞 ...** Actual amount of **muscle mass starts to decline** at age 40 and accelerates after age 65.

- And the legs lose muscle mass at a faster rate. As the **body fat increases** over the years, there is a greater tendency to gain that fat in the visceral area (abdomen cavity) particularly in men.

- This **increase in fat** around the vital organs often results in chronic disease. (Hoeger, p. 282 and 325).
Solutions?

- Research has shown that **regular aerobic activity and strength training** can help older adults manage body weight and reduce visceral fat.

- The right exercise can even **slow the physiological aging clock**.

- Aerobic exercise helps to maintain the heart and lungs and **increases cardiovascular fitness and endurance**.

- Lifting weights 2 or 3 times a week **increases strength** by building muscle mass and bone density.
Benefits of exercise

One 12-month study conducted on postmenopausal women at Tufts University demonstrated with just 2 days/wk of progressive strength training:

- 1% gains in hip and spine bone density
- 75% increases in strength
- 13% increases in dynamic balance

The control group had losses in bone, strength, and balance. Strength training programs can also have a profound effect on reducing risk for falls, which translates to fewer fractures.”
Case study

• **L.L.Bean is a outdoor company** based in Maine, with retail stores in the U.S. and Japan.

• Includes distribution, call centers and some manufacturing

• Company **founded** in 1912.

• **Average age** of employees in Maine operations is **50**.

• Maine is considered the **oldest state in the nation** with a median age of 43.5 in 2012.

Local workforce available to fill jobs will continue to be **Baby Boomers**.

Average longevity in the company is 12 years, with many employees in the **20-plus** range.
The Concept

The concept of a conditioning program came about in response to a concern that employees were aging in place and still performing highly physical jobs, 10-20 years after they had been approved for a job through the post offer examination process.

Are employees still fit enough to do these jobs?
Overview of JumpStart

- JumpStart is a **12-week supervised exercise program** on company time.

- Included **pre/post testing** along with follow up after the program.

- Leadership chose case handling employees for JumpStart due to **high risks of the job and frequency of shoulder injury** during previous year.
The Job

- 100 case handling employees
- **Most physical job** in the warehouse
- **Lifting up to 50 lb** boxes
- **Lifting may include up to 78 inches overhead** and down to the floor
- Trucks are unloaded to a conveyor (lumping) and then palletized (looping)
- **Boxes may also be physically moved** from pallets to the conveyor or a U-boat
The Job

In addition, these employees are **Powered Industrial Truck (PIT) Operators** – they may load an order picker with boxes, move the load to another location and de-palletize it onto a rack.
Methodology

- Wellness staff presented the program offer to the **entire case handling employee group**.

- Employees who were interested in participating were asked to **complete an application**.

- Application included questions on motivation and readiness. **About half the department applied**.
Pre and Post Testing
The Intervention

• Focus was on conditioning employees by creating muscle balance, strength and flexibility without reinjuring the same body parts.

• Held onsite in warehouse fitness room, during normal work hours, both first and second shift.

• Program included 45 minute supervised exercise, 3 days a week, for 12 weeks.

• Class consisted of foam rolling, stretching, core work, resistance band work, use of medicine ball or exercise ball and hand weights.
Staffing

• Each 45 minute class was led by a qualified fitness instructor.

• Physical Therapy staff assisted with the design and attended some of the classes.
Funding

- Employees used three 15-minute paid break times towards the exercise class each week and the company provided additional paid time for 90 minutes a week.

- Funding for Wellness staff and Physical Therapy staff was provided as a component of the existing budget. Distribution operations funded wages for the program.
Results

Avg. Age = 46

Avg. Years of Service = 11
LL Bean Organization Intervention
• Average age of 50
• Physically demanding jobs
  • Materials handling in the warehouse
• Organization of work:
  • Most workers usually were assigned materials-handling activities only twice a week
  • Rotated to other tasks every couple of hours
  • Three sets of paid 5-minute rest and stretch breaks a day
• Technologies:
  • Vacuum lifts reduce weights to less than 10 pounds
  • Pallet positioners allow loads to be at optimal height
  • No back injuries have been reported while using this technology
  • Positive worker feedback
Jump-Starting Cardiovascular Fitness

- Aims to increase cardiovascular fitness and endurance, build muscle mass, improve flexibility
- Aerobic activity and strength-training program: Three times a week, for 12 weeks
- 45 minutes of paid company time during their work shift
- Improvements in muscle strength, endurance, and flexibility; resting heart rate and cardiovascular endurance
- 29% of the participants lost weight
- 62% of workers reported having more energy and 29% reported less stress
- Workers’ compensation cases were reduced from 10 to 2 cases in the same group of workers, with reductions in both compensation costs and medical costs.
PROMISING PRACTICE:
DARTMOUTH-HITCHCOCK
Dartmouth-Hitchcock

- Academic Medical Center: 8500 employees
- 10,000 family members
- 900 physicians
- Multiple sites
Recognizable Problem
• Unsustainable health care costs
• Siloed resources
• Workforce sicker than benchmark organizations
• Patient safety depends on healthy employees

The Solutions
• Create a sustainable ‘culture of health’ that would support population health
• LiveWell WorkWell – a strategic priority
Dartmouth-Hitchcock: LiveWell Workwell

- **Electronic reporting of injuries (EROI)** provides immediate notification to occupational medicine, safety, human resources, and work ability programs.
- **Safety Wellness Action Team (SWAT)**, which conducts an initial open-ended safety and socio-environmental assessment:
- **Partners in Health, Environment, Wellness, and Safety (PHEWS) committee**, comprised of stakeholder representatives from the work unit, provide peer assistance.

Chang & McLellan, 2013, *TWH in Action!*  
[http://www.cdc.gov/niosh/TWH/newsletter/TWHnewsv2n3.html#2](http://www.cdc.gov/niosh/TWH/newsletter/TWHnewsv2n3.html#2)
Dartmouth-Hitchcock: *LiveWell Workwell*

- **Individual Level Interventions**
  - self-scored surveys (not turned in) to understand the resources available
  - services: employee assistance and behavioral health; work ability programs; primary care disease management

- **Group Level Interventions:**
  - supervisor training, team and resiliency building, chaplaincy, lifestyle coaching, benefits design
  - environmental supports: access to healthier foods or changes to work schedules, and policy changes.

Chang & McLellan, 2013, *TWH in Action*

[http://www.cdc.gov/niosh/TWH/newsletter/TWHnews2n3.html#2](http://www.cdc.gov/niosh/TWH/newsletter/TWHnews2n3.html#2)
STRETCH BREAK
DESIGNING AN INTEGRATED PROGRAM TO ADDRESS SAFETY AND HEALTH ISSUES

GROUP ACTIVITY
Group Activity Instructions

- Break into groups
- Choose a real-life worksite
- Identify key factors and risks at the worksite
- Choose 1-2 risk factors to target
- Come up with a plan
- Report back to larger group at 11:35pm
GUIDELINES AND RESOURCES FOR DEVELOPING A TWH APPROACH
What is Total Worker Health®?

Total Worker Health® is defined as policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being.
Simple Steps to Get Started

1. NIOSH Essential Elements of Effective Workplace Programs and Policies for Improving Worker Health and Well-being
2. Ideas You Can Implement Right Now to Integrate Health Protection and Promotion of Worker Well-being

http://www.cdc.gov/niosh/twh/steps.html
Assessment Tools

1. Integration of Health Protection and Health Promotion: Rationale, Indicators, and Metrics (Sorensen et al, 2013)
2. CDC Worksite Health ScoreCard (HSC)
3. NIOSH Organization of Work Measurement Tools for Research and Practice
4. NIOSH Quality of Worklife Questionnaire
5. Occupational Safety and Health Administration (OSHA) Form 33
6. American College of Occupational and Environmental Medicine’s Corporate Health Achievement Award
7. CDC Workplace Health Assessment

http://www.cdc.gov/niosh/twh/tools.html
Guidelines for Integrated Approaches

1. The Whole Worker: Guidelines for Integrating Occupational health and Safety with Workplace Wellness Programs, State of California Commission on Health and Safety and Workers’ Compensation (CHSWC); 2010

2. Healthy Workplace Participatory Program by Center for Promotion and Health in the New England Workplace (CPH-NEW); 2013


http://www.cdc.gov/niosh/twh/tools.html
Ways to Connect with Total Worker Health

Twitter
(@NIOSH_TWH)

LinkedIn Group
(Search “NIOSH Total Worker Health”)

TWH in Action!
e-Newsletter

http://www.cdc.gov/niosh/TWH/newsletter/
Webinar Series

Recognizing the complex, often interlinked hazards affecting the health, safety, and well-being of today's workforce, the NIOSH Total Worker Health® program is excited to present a free webinar series aimed at providing the latest research and case studies for protecting the safety and health of workers everywhere. All 90-minute webinars are recorded and are available for on-demand viewing.

Webinar Series Learning Objectives

- Describe recent trends in demographics, employment conditions, worker safety, injury, and illness as they relate to the health and well-being of workers.
- Describe the relationship between at least one health condition and at least one condition of work.
- Discuss the latest findings supporting rationale for implementing a Total Worker Health® approach.
- List one potential opportunity for integration between health protection and policies, programs, and practices that promote health and advance worker safety, health and well-being.
- Develop workplace programs and interventions that integrate elements of occupational safety and health protection with policies, programs, and practices that promote health and advance worker safety, health and well-being.
- Identify sources of information on prevention of adverse worker health and safety outcomes and the promotion of Total Worker Health®.

To evaluate this educational activity, receive a certificate, or to print out an on-going transcript of all of your TCEOnline CE activities, please visit: www.cdc.gov/TCEOnline.

Next webinar: Functional Outcomes
Slated topic: June/July

http://www.cdc.gov/niosh/twh/webinar.html
Contact Information

Email: TWH@cdc.gov

NIOSH Total Worker Health® website: http://www.cdc.gov/niosh/twh