

The Integration of Health Protection and Health Promotion: Practical Interventions for the Workplace

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



Overview

- Introductions
- Overview of NIOSH
- What is Total Worker Health™?
- Why now? A look at current challenges
- Examples of Program Efforts
- How can you get started and stay connected?



Introductions

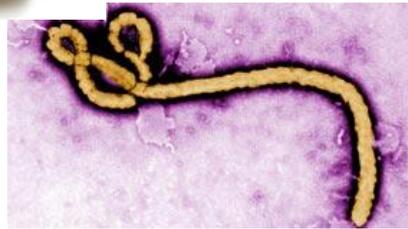
- Family / Home Composition
- Job; What do you do? Kind of job
- Tell me one thing you've done for yourself **today** to improve your health



Today's CDC workplace looks like this...



...with employees responding to events such as...



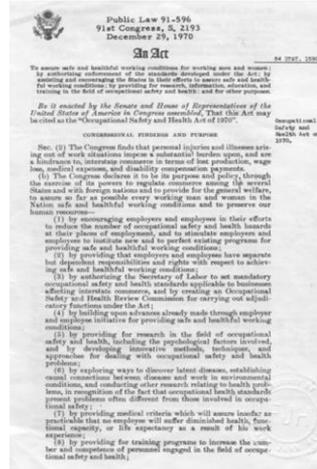
But the deadliest threats facing CDC employees
are...

- Cardiovascular Disease
- Cancer
- Diabetes
- Preventable Injuries



Occupational Safety & Health Act

- Sec. (2)(b) . . .to assure so far as possible every man and woman in the Nation safe and healthful working conditions and to preserve our human resources . . .



7

NIOSH Mission

To generate new knowledge in the field of occupational safety and health and to transfer that knowledge into practice for the betterment of workers.



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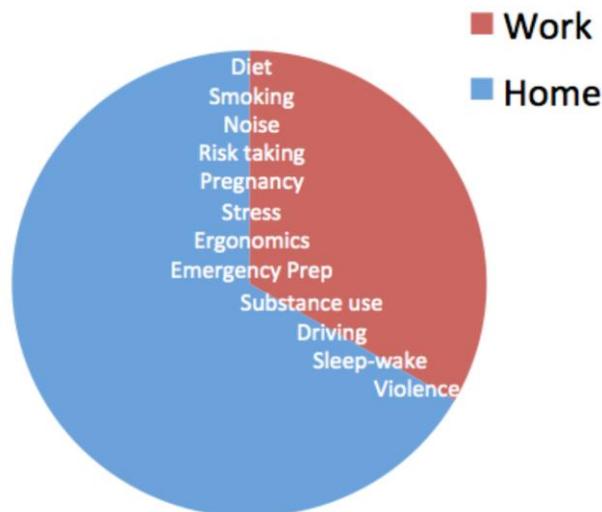
NIOSH Locations



WHAT IS TOTAL WORKER HEALTH™?

The Total Worker Health™ Approach

- Total Worker Health™ is a strategy **integrating** occupational safety and health **protection** with health **promotion** to *prevent* worker injury and illness and to *advance* health and well-being.



Source: Dr. Kent Anger, Oregon Health and Science University, 2014.

Economic Necessity: TWH™

- Workers:
 - Spend \geq 1/3 of day at work
 - Limited supply
 - Getting older
 - Have more chronic health conditions
- U. S. employers pay for:
 - 36% of the nation's healthcare expenditures
 - Workers' compensation claims
- *Company health & employee health are interdependent!*



Occupational Safety and Health & Health Promotion Silos

- Traditional occupational safety and **health protection**
 - focus on reducing hazards and exposures at the workplace to prevent occupational injury and illness, optimally promoting **collective change**; programs are often mandatory or regulated heavily
- Traditional **health promotion**
 - involves interventions aimed at reducing lifestyle risk factors by promoting healthy behaviors and actions, often focusing on promoting **individual change**

Integrated Approach to Total Worker Health



Adapted from: Liberty Mutual, 2010, Webinar, The Wellness-Work Comp Connection.
Ron Goetzel, 2011, *Examining the Value of Integrating Occupational Health and Safety and Health Promotion Programs in the Workplace*, at <http://www.cdc.gov/niosh/docs/2012-146/pdfs/2012-146.pdf>.

Example of Integration

An example: Provision of mandated respiratory protection programs that simultaneously and comprehensively address and provide supports for tobacco cessation



Example of Integration

An example: Providing ergonomic consultations for work conditions within interventions that also include arthritis self-management strategies



Issues Relevant to a TOTAL WORKER HEALTH™ Perspective*

WORKPLACE <i>Protecting Worker Safety & Health</i>	EMPLOYMENT <i>Preserving Human Resources</i>	WORKERS <i>Promoting Worker Health & Well-Being</i>
<p>Control of Hazards & Exposures:</p> <ul style="list-style-type: none"> • Chemicals • Physical Agents • Biological Agents • Psychosocial Factors • Organization of Work <p>Prevention of Injuries, Illness & Fatalities</p> <p>Promoting Safe & Healthy Work:</p> <ul style="list-style-type: none"> • Management Commitment • Safety Culture/Climate • Culture of Health • Hazard Recognition Training • Worker Empowerment <p>Risk Assessment & Control:</p> <ul style="list-style-type: none"> • Making the Safety & Health Case • Assessing All Risks • Controlling All Risks • Root Cause Analysis • Leading/Lagging Indicators 	<p>New Employment Patterns:</p> <ul style="list-style-type: none"> • Precarious Employment • Part-time Employment • Dual Employers • Changing Demographics <ul style="list-style-type: none"> – Increasing Diversity – Aging Workforce – Multigenerational Workforce • Global Workforce <p>Health & Productivity:</p> <ul style="list-style-type: none"> • Leadership Commitment to Health-Supportive Culture • Fitness-for-Duty • Reducing Presenteeism • Reducing Absenteeism • Workplace Wellness Programs <p>Healthcare & Benefits:</p> <ul style="list-style-type: none"> • Increasing Costs • Cost Shifting to Workers • Paid Sick Leave • Electronic Health Record • Affordable Care Act • HIPAA[†] Health Information Privacy 	<p>Optimal Well-Being:</p> <ul style="list-style-type: none"> • Employee Engagement • Health & Well-Being Assessments • Healthier Behaviors <ul style="list-style-type: none"> – Nutrition – Tobacco Use Cessation – Physical Activity – Work/Life Balance • Aging Productively • Preparing for Healthier Retirement • Policy & Built Environment Supports <p>Workers with Higher Health Risks:</p> <ul style="list-style-type: none"> • Young Workers • Low-Income Workers • Migrant Workers • Workers New to a Hazardous Job • Differently-abled Workers • Veterans <p>Compensation & Disability:</p> <ul style="list-style-type: none"> • Disability Evaluation • Reasonable Accommodations • Return-to-Work • Social Security Disability Insurance

*Issues in these lists are for illustrative purposes, are not meant to be exhaustive nor do they necessarily reflect equivalent importance.

[†]Health Insurance Portability and Accountability Act

Updated: August 2013



WHY NOW?

Isn't Behavior Change Enough?

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



Annually, employers report...



Nearly
4 Million
nonfatal workplace
injuries and illnesses^{1,2}



Over
55,000
deaths from work-
related injuries and
illnesses³

Cost of Workplace Injuries & Illness*

- \$250B per year for work injuries & sick days
- Medical costs = 27% of total
- Indirect costs (productivity) = 73% of total
- <25% covered by Workers' Compensation
- Most covered by Medicare, Medicaid, and health insurance provided by employers

*Leigh, JP. 2011. Economic Burden of Occupational Injury and Illness in the United States. The Milbank Quarterly, Vol. 89, No. 4: 728-772.



In 2012...

U.S. healthcare
 spending reached

\$2.79 Trillion¹⁵



TOTAL WORKER HEALTH™
INTEGRATING HEALTH PROTECTION AND HEALTH PROMOTION



Workers' risk of disease may be increased by exposure to both occupational hazards and individual risk-related behaviors.¹⁴



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In 2010...



44%

of Americans reported that work is often or always **stressful**.⁹



Workers Report...



- 20% say that work interferes with family time and home responsibilities
- 50% do not take allotted vacation time
- 3 out of 4 employees actively or passively searching for a new job

Sources: St. Paul Fire and Marine Insurance Company, 1995; NIOSH QWL; SHRM



Stress, Mental Health Costs



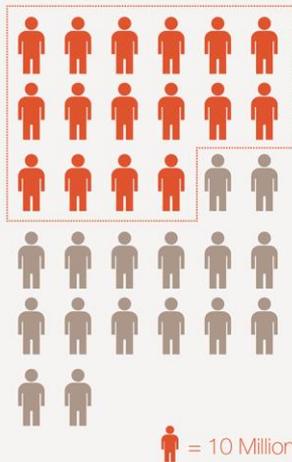
- Costs \$300 billion annually in absenteeism, diminished productivity, employee turnover, direct medical, legal and insurance fees ¹
- Including healthcare & other indirect costs²
 - Depression = \$83.1 billion
 - Anxiety disorders = \$63.1 billion
- Health care costs 50% higher for workers under high stress

¹ American Institute of Stress, 2005

² Langlieb (2005)



TOTAL WORKER HEALTH™
INTEGRATING HEALTH PROTECTION AND HEALTH PROMOTION



Nearly

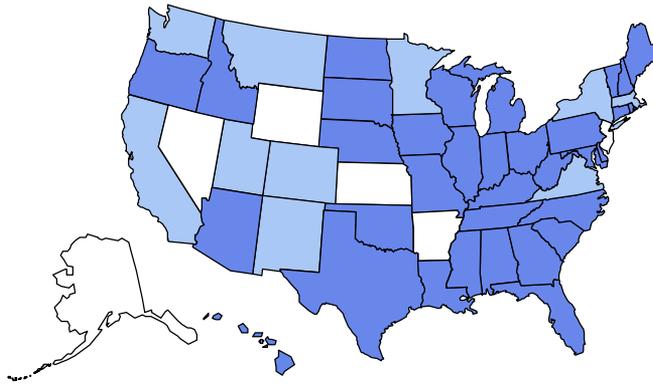
50%

of Americans have one chronic health condition. And, of this group almost half have multiple conditions.⁵



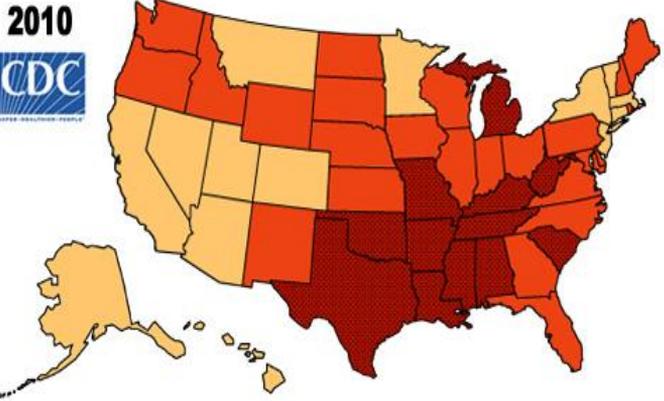
Obesity Trends* Among U.S. Adults, 1990

(*BMI ≥30, or about 30 lbs overweight for 5'4" person)



No Data
 <10%
 10%-14%
 15%-19%
 20%-24%
 ≥25%

Obesity Trends* Among U.S. Adults, 2010



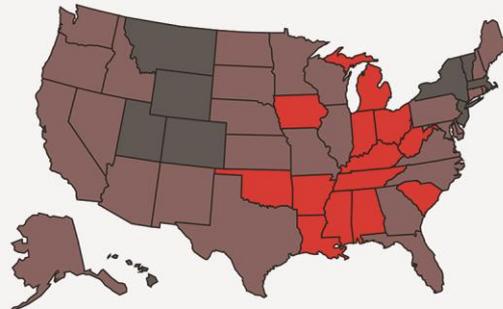
No Data
 <10%
 10%-14%
 15%-19%
 20%-24%
 25%-29%
 ≥30%

The estimated annual health
cost of obesity in the U.S. is

\$147 Billion⁶

Prevalence* of Self-Reported Obesity Among U.S. Adults, 2012⁷

*Prevalence reflects BRFSS methodological changes in 2011, and these estimates should not be compared to those before 2011.



15-19% 20-24% 25-29% ≥30%



And most recently...

June 2013

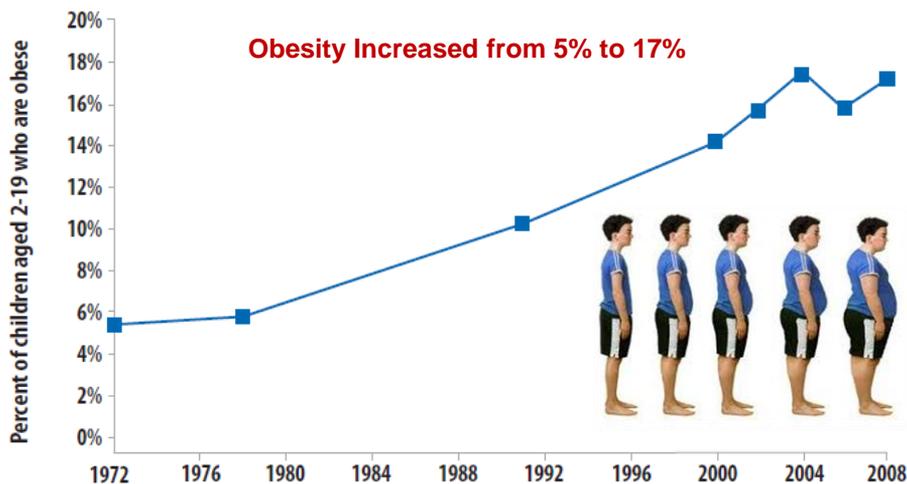
American Medical
Association officially
recognizes obesity as a
disease

(<http://news.msn.com/science-technology/obesity-gets-a-new-diagnosis-its-a-disease#tscptme>)





Growth in Childhood Obesity, 1971 to Present



Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Surveys.
 Note: Obesity is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts



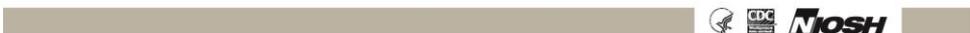
Hot Off the Press!

New NIOSH Report Recommends All Workplaces be Tobacco Free

Recommendations include exposures to e-cigarettes in the workplace



Navajo Nation's Junk Food Tax



Shift Work



- Sleeper while awake affects ability to perform safely & efficiently
- Linked with
 - Gastrointestinal complaints
 - Psychological complaints including difficult relationships
 - Heart disease
 - Reproductive difficulties
 - Colon and prostate cancer
- Tolerance decreases with age



Low-Wage Workers: How Many? Who Are They?

- One out of every three workers in the US
- In 2010, around 40 million workers
- NIOSH defines the low-income worker:

A low-income worker is defined as earning a weekly wage that is less than 150% of what a worker who is paid the federal minimum wage would earn in a 40-hour workweek (≤\$435).
- Disproportionately women, young, African-Americans, Hispanics and other minorities
- Low educational levels
- Cashiers, home health care/personal care, day care workers, housekeepers, servers, fast food, “hand workers”



Challenges Facing Low-wage Workers Are Numerous

- Job insecurity
- Part-time work (or forced overtime)
- Isolation from family or support systems for long spans of time
- Lack of representation
- Discrimination
 - Race, gender, age, disability, national origin, sexual orientation, language
- Bullying and harassment
- Lack of decisional latitude, control, respect
- Increased risk of job stress



- **Sedentary Office Work**
- **Basic definition**
- Prevalence of “sedentary” work (*does TWH have any info on this?*)
- Societal burden (*does TWH have any info on this?*)
- Overview of health risks of seated work
 - Stress
 - Obesity, heart disease...other physical health linkages?
 - MSDs
- Overview of factors affecting office worker health [maybe just a bulleted list to lay out organization of rest of workshop]
 - Physical workplace
 - Organizational issues
 - Lifestyle/personal factors



Definition of Sedentary Work

- **Sedentary Work** – Exerting up to 10 pounds of force occasionally to lift, carry, push, pull, or otherwise move objects, including the human body.
- Sedentary work involves sitting most of the time, but may involve walking or standing for brief periods of time.
- *Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.*

- US Department of Labor



**"Sitting is
the new Smoking."**
— *Dr. Mercola*



Prevalence of Sedentary Work

- Sedentary jobs have increased 83% since 1950; Physically active jobs now make up only about 25% of our workforce. That is 50% less than 1950.
 - American Heart Association
 - The Price of Inactivity

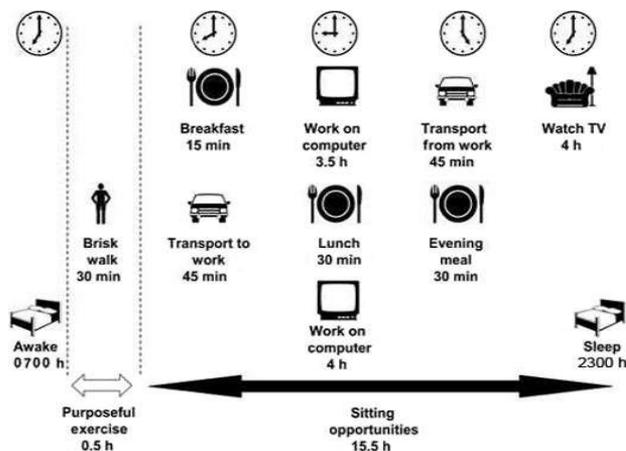
Sitting at work and at home...

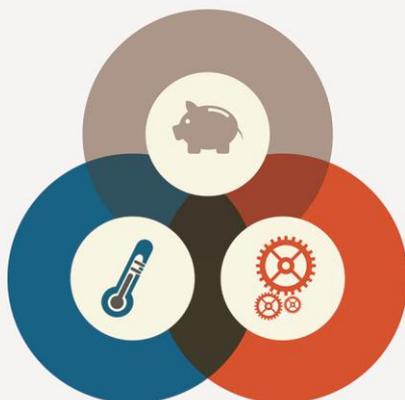
- 79% of all full-time workers in the U.S. are employed in sedentary- and light-intensity occupations
- Combined total of occupational and non-occupational sedentary behaviors: up to 15 hours per day
- Effects of 15 hours of sitting are not mitigated by 1 hour of physical activity
- For many, little time left to achieve recommended levels of physical activity for overall health

Tudor-Locke C et al. *JOEM* 2011;53(12):1382-1387.



“I exercise 30 minutes every day”





The health of workers is tied to the health and productivity of organizations.⁴



“Companies that build a culture of health by focusing on the well-being and safety of their workforce yield greater value for their investors.”

FAST TRACK ARTICLE

The Link Between Workforce Health and Safety and the Health of the Bottom Line

Tracking Market Performance of Companies That Nurture a “Culture of Health”

Raymond Fabius, MD, R. Dixon Thayer, BA, Doris L. Konicak, MPH, Charles M. Yarbrough, MD, Kent W. Peterson, MD, Fkry Isaac, MD, Ronald R. Loepke, MD, MPH, Barry S. Eisenberg, MA, and Marianne Dreger, MA

Objective: To test the hypothesis that comprehensive efforts to reduce a workforce’s health and safety risks can be associated with a company’s stock market performance. **Methods:** Stock market performance of Corporate Health Achievement Award winners was tracked under four different scenarios using simulation and past market performance. **Results:** A portfolio of companies recognized as award winning for their approach to the health and safety of their workforce outperformed the market. Evidence seems to support that building cultures of health and safety provides a competitive advantage in the marketplace. The research may have also identified an association between companies that focus on health and safety and companies that manage other aspects of their business equally well. **Conclusions:** Companies that hold a culture of health by focusing on the well-being and safety of their workforce yield greater value for their investors.

A growing body of evidence supports the concept that focusing on the health and safety of a workforce is good business. Engaging in a comprehensive effort to promote wellness, reduce the health risks of a workforce, and mitigate the complications of chronic illness

Recently, an article by Loepke and colleagues¹ reported that for every dollar of medical and pharmaceutical costs spent, an employer lost an additional \$2.30 of health-related productivity costs. Health-related preventions (health risks and medical conditions impacting work performance) was shown to have a larger impact on lost productivity than absenteeism, with executives and managers suffering higher losses. Counterbalancing demonstrated the larger effects on productivity loss.²

These facts led to a hypothesis: Companies that create an environment for their employees and dependents that reinforces both conscious and unconscious safer and healthier lifestyle choices as well as provides more effective accessing of appropriate health care (ie, surround them with a “culture of health”) should be more productive and that productivity should drive business performance and be reflected in the price of their stock.

To more objectively test this hypothesis, we tracked the stock market performance of companies with proven health, safety, and environmental programs under four different scenarios. To find such companies, we based on the resources of the American College of Occupational Medicine’s (ACCO) Corporate Health Achieve-

Dilbert Comic Strip

10/0/07



What are the Essential Elements of Effective Programs?

- Excellent
- Very good
- Good
- Average
- Poor



Organizational Culture and Leadership

1. Develop a “Human Centered Culture”
2. Demonstrate Leadership
3. Engage Mid-Level Management

Program Design

4. Establish Clear Principles
5. Integrate Relevant Systems
6. Eliminate Recognized Occupational Hazards
7. Be Consistent
8. Promote Employee Participation
9. Tailor Programs to the Specific Workplace
10. Consider Incentives and Rewards
11. Find and Use the Right Tools

12. Adjust the Program as Needed

13. Make Sure the Program Lasts

14. Ensure Confidentiality

Program Implementation and Resources

15. Be Willing to Start Small & Scale Up

16. Provide Adequate Resources

17. Communicate Strategically

18. Build Accountability into Program Implementation

Program Evaluation

19. Measure and Analyze

20. Learn from Experience



Activity

- ❖ Choose a workplace
- ❖ Discuss key factors that contribute to employee safety, health and well-being in your work setting
- ❖ Identify potential Risk Factors
- ❖ Who should be involved
- ❖ What resources do you need
- ❖ How will you engage leadership
- ❖ How will you engage the workforce
- ❖ Low-cost solutions
- ❖ Barriers and how to address
- ❖ Measure/evaluate success
- ❖ Report back to leadership



Employment Arrangements: Flexible Work

- Flexibility for Work-Life Fit¹ (Balance)
 - Greater Engagement
 - Greater Probability of Retention
 - Greater Job Satisfaction
 - Better Overall Health
- Flexibility to Balance Work & Life Most Effective²
 - Retain & Reward the Best People
 - Attract the Best People



¹2008 National Study of the Changing Workforce

²SHRM Human Potential Poll, 2010, <http://www.shrm.org/Research/SurveyFindings/Articles/Pages/Challengesinnext10Yrs.aspx>

Graphic Credit: Veterans Today, <http://www.veteranstoday.com/2011/01/12/walking-the-talk-creating-a-culture-of-flexibility/>



Create Age-Friendly Workplaces

- Prioritize workplace flexibility
- Match tasks to abilities
- Involve workers in job redesign efforts
- Avoid prolonged, sedentary work
- Manage physical hazards, e.g., noise, slip/trip
- Provide ergo-friendly work environments
- Provide health promotion & lifestyle programs
- Accommodate medical self-care
- Invest in training & skill-building for all workers
- Encourage cross-generational interactions
- Manage reasonable accommodations & return to work
- Require aging workforce management skills training for supervisors

Loeppke et al., 2013; Silverstein, 2008 in Chosewood & Nigam, 2012; Grosch & Pransky, 2010



Keys to Success...

- Clear Vision, Goals, Timeline and Accountability
- Dedicated Resources
- Responsiveness to the People You Serve
- Willingness to Hit “Refresh” Often
- Focus on Women as Primary Target Audience
 - Care
 - Connect
 - Cultivate
 - Control



Address the Stress

Organizational Change

- Workload
- Job design
- Clear roles & responsibilities
- Job-related decision making
- Improve communications
- Social interaction
- Flexible work schedules

Individual Change

- Stress management

<http://www.cdc.gov/niosh/docs/99-101/>



Key Work-Life Balance Truths

- Workers Want, Need and Will Seek Out More Flexibility
- Organizing Work around People Works Better than Organizing People around Work
- View every workplace decision through the lens of “the health and wellbeing of the worker”
 - Every workplace policy will have some effect on the health and wellbeing of workers—take steps to make sure it is a positive one
- Healthier, happier workers are more engaged and productive



Which break room looks like yours?



Your break room sends a message about how much your employees are valued. A small investment in upgrades can send a powerful message.

Does Your Built Environment Allow Health to Thrive?

- Safe, hazard-free workplace
- Welcoming, User-Friendly, Ergo-Appropriate Workspaces
- Commitment to Employee Respect, Engagement, and Input
- Stairs, Walkways, Paths, Trails are Safe and Inviting
- Onsite food choices that make eating healthier easy
- Transportation and Parking Options Enhance Health
- Onsite or Nearby Health Clinic or Access to Healthcare Providers
- Fitness Facilities or Opportunities for Physical Activity



CDC StairWELL Project

- Simple Changes to Dreary Stairwells Increase Usage
 - Painting
 - Carpeting
 - Framed artwork
 - Motivational signs
 - Music
- Low-Cost, High-Impact



Case Study: CDC's Tobacco Free Campus Initiative

- Significant Policy Change in 2005
 - ✓ **Completely Smoke Free Campuses, Indoors and Out**
- Collaboration of Health Promotion, Clinical, EAP staff and "Quit-Lines"
- Personal Quit Plan, Free Nicotine Replacement
- Support for Multiple Quit Attempts
- Link Annually with the Great American Smokeout[®]



Gender Sensitive Restrooms



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Smoking Shelter Becomes Covered Bike Parking!



  65

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  66

Engaging the “Un-Engaged”

- Go Green! Get Healthy!
 - Combines personal health promotion and environmental awareness efforts
 - Improves workplace morale, resiliency
 - Allows for ownership and role modeling
 - Enhances environmental responsibility and corporate citizenship

- CDC’s Fall Flu Campaign

- Everybody Eats!



Garden Markets & Healthy Produce Opportunities

- Designed to Increase Fruit & Vegetable Consumption

- Expanded in 4 Years to 6 CDC Locations

- Weekly Specials, Recipes, Reminders





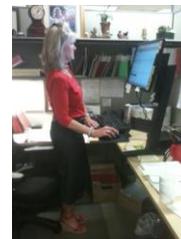
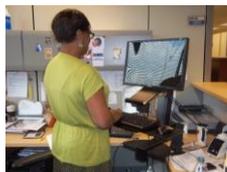
“

HealthiestNIOSH

HealthiestNIOSH is a great way to say *I believe in health, safety and wellbeing for me, for those I care about and for the people we serve. Make the most of your health today...*”



Sit-Stand Workstation





Walking Workstation





Personal Lifestyle Factors



Work and Life: Acknowledge the Balancing Act



Consider Not Smoking

- Tobacco smoking increases the risk for serious health problems, numerous diseases, and death. People who stop smoking greatly reduce their risk for disease and premature death



Know Your Numbers!

- Body Mass Index (BMI)
- Blood pressure screenings
- Breast, Prostate and other exams
- Biometric screening:
 - cholesterol (HDL and LDL)
 - Glucose
 - triglycerides



Relax



Vaccinate



Adopt Healthy Eating Habits

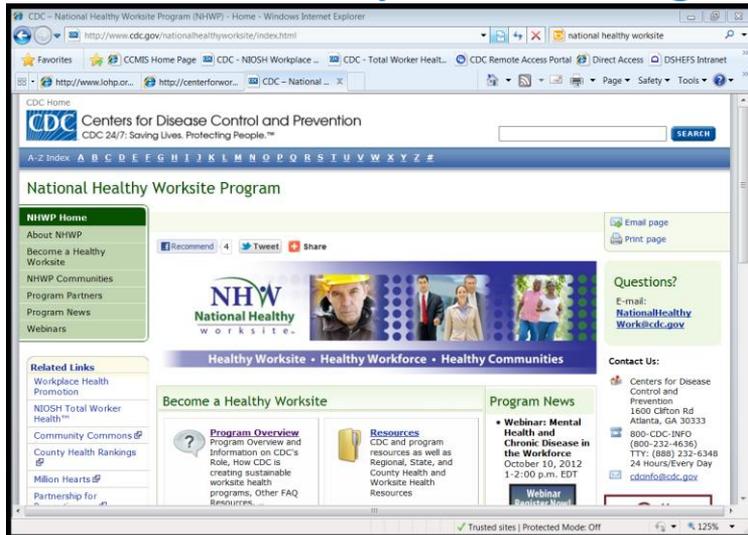


Rest!

- **How much sleep is really *enough*?**
 - Most adults need 7-9 hours of sleep each night to feel fully rested



CDC National Healthy Worksite Program



The screenshot shows the CDC National Healthy Worksite Program (NHWP) homepage. The page features the CDC logo and the slogan "CDC 24/7: Saving Lives. Protecting People.™". A navigation menu includes "National Healthy Worksite Program", "NHWP Home", "About NHWP", "Become a Healthy Worksite", "NHWP Communities", "Program Partners", "Program News", and "Webinars". A central banner reads "Healthy Worksite • Healthy Workforce • Healthy Communities". Below this, there are sections for "Become a Healthy Worksite" (with a "Program Overview" link), "Resources", and "Program News" (highlighting a webinar on "Mental Health and Chronic Disease in the Workforce" on October 10, 2012). A sidebar on the left lists "Related Links" such as "Workplace Health Promotion" and "NIOSH Total Worker Health™". A "Contact Us" section on the right provides the CDC address in Atlanta, GA, and contact information including a phone number (800-CDC-INFO) and email (cdcinfo@cdc.gov).

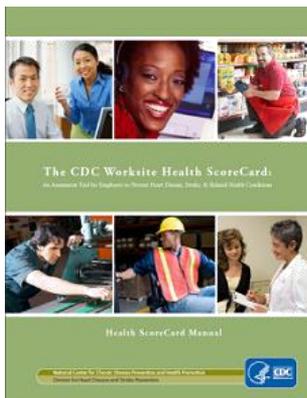
For resources on Total Worker Health™,
 visit: <http://www.cdc.gov/niosh/TWH/>



The screenshot shows the NIOSH Total Worker Health™ (TWH) website. The page features the NIOSH logo and the slogan "TOTAL WORKER HEALTH™". A prominent section titled "New Expanded TWH Resources" includes a video thumbnail and text about foundational papers. Below this, a "What is Total Worker Health?" section defines TWH as a strategy integrating occupational safety and health protection with health promotion to prevent worker injury and illness and to advance health and well-being. It notes that emerging evidence recognizes that both work-related factors and health factors beyond the workplace jointly contribute to many health and safety problems. A "Stay Connected with TWH™" section offers options to receive newsletters, follow on Twitter, and join on LinkedIn. A "Contact Us" section on the right provides the address of the National Institute for Occupational Safety and Health (NIOSH) in Atlanta, GA, and contact information including a phone number (800-CDC-INFO) and email (cdcinfo@cdc.gov).



Worksite Health ScoreCard



The CDC Worksite Health ScoreCard is a tool designed to help employers assess and improve health promotion in their worksites.

http://www.cdc.gov/dhdsp/pubs/worksite_scorecard.htm



The National Institute for Occupational Safety and Health (NIOSH)



NIOSH Publications & Products

- NIOSH-Issued Publications
- Publication Types
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- Search NIOSHTIC-2 Research Database
- eNews
- Collaborating Centre Connection Newsletter
- Total Worker Health in Action!
- ▶ **Vol. 2 No. 3**
- Vol. 2 No. 2
- Vol. 2 No. 1
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NIOSH Publications & Products > Total Worker Health in Action!

Recommend Tweet 12 Share

TWH™ in Action!

Volume 2 Number 3 August 2013



In this issue:

- Managers' Buzz
- Total Worker Health™ Exclusive
- Promising Practices for Total Worker Health™
- Updates from NIOSH Centers of Excellence to Promote a Healthier Workforce
- News from our Partners
- New Initiatives and Resources
- TWH Fast Facts
- Coming Soon! Are You Ready for the New Health Insurance Marketplace?
- Upcoming Conferences, Webinars and Trainings in Support of NIOSH Total Worker Health™

Managers' Buzz

BY: ANITA L. SCHILL, PHD, MPH, MA AND L. CASEY CHOSEWOOD, MD



Work and health are so intertwined they can't be separated. This was the recurring message from the 10th International Conference on Occupational Stress and Health convened in May in Los Angeles. The 2013 conference, more colloquially known as the Work, Stress, and Health (WSH) Conference, carried a subtheme of Total Worker

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- National Institute for Occupational Safety and Health
 - NIOSH Home www.NIOSH.gov
 - NIOSH Total Worker Health Home www.NIOSH.gov/twh
 - **Coming Soon! Healthy Aging and Work Topic Page**
- Centers for Disease Control and Prevention
 - www.CDC.gov/aging
 - www.CDC.gov/workplacehealthpromotion
- **New Article: Advancing Workplace Health Protection and Promotion for an Aging Workforce**
Journal of Occ and Env Med May 2013 Issue



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 INTEGRATING HEALTH PROTECTION AND HEALTH PROMOTION

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Why health matters...

