Total Worker Health™: The Time is Now!

A Presentation for
U. S. Public Health Service Nurses
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Outline

• TWH 101 – A Brief Overview
• Sedentary Work & Adverse Health Outcomes
• Resources for More Information
• Stay Connected with Us
TOTAL WORKER HEALTH™
The Basics
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
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.
Integrated Approach to Total Worker Health

Examples of Integration

Respiratory protection programs that address tobacco use and smoking cessation

Ergonomic consultations that include arthritis management strategies

Stress management efforts that first seek to diminish workplace stressors, and only then work on building worker resiliency

Comprehensive screenings for work and non-work risks
# Issues Relevant to a TOTAL WORKER HEALTH™ Perspective

## Workplace

**Protecting Worker Safety & Health**

- Control of Hazards & Exposures:
  - Chemicals
  - Physical Agents
  - Biological Agents
  - Psychosocial Factors
  - Organization of Work

- Prevention of Injuries, Illness & Fatalities

- Promoting Safe & Healthy Work:
  - Management Commitment
  - Safety Culture/Climate
  - Culture of Health
  - Hazard Recognition Training
  - Worker Empowerment

- Risk Assessment & Control:
  - Making the Safety & Health Case
  - Assessing All Risks
  - Controlling All Risks
  - Root Cause Analysis
  - Leading/Lagging Indicators

## Employment

**Preserving Human Resources**

- New Employment Patterns:
  - Precarious Employment
  - Part-time Employment
  - Dual Employers
  - Changing Demographics
    - Increasing Diversity
    - Aging Workforce
    - Multigenerational Workforce
  - Global Workforce

- Health & Productivity:
  - Leadership Commitment to Health-Supportive Culture
  - Fitness-for-Duty
  - Reducing Presenteeism
  - Reducing Absenteeism
  - Workplace Wellness Programs

- Healthcare & Benefits:
  - Increasing Costs
  - Cost Shifting to Workers
  - Paid Sick Leave
  - Electronic Health Record
  - Affordable Care Act
  - HIPAA Health Information Privacy

## Workers

**Promoting Worker Health & Well-Being**

- Optimal Well-Being:
  - Employee Engagement
  - Health & Well-Being Assessments
  - Healthier Behaviors
    - Nutrition
    - Tobacco Use Cessation
    - Physical Activity
    - Work/Life Balance
  - Aging Productively
  - Preparing for Healthier Retirement
  - Policy & Built Environment Supports

- Workers with Higher Health Risks:
  - Young Workers
  - Low-Income Workers
  - Migrant Workers
  - Workers New to a Hazardous Job
  - Differently-Abled Workers
  - Veterans

- Compensation & Disability:
  - Disability Evaluation
  - Reasonable Accommodations
  - Return-to-Work
  - Social Security Disability Insurance

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

1Health Insurance Portability and Accountability Act

Updated: August 2013
Global Economy: Declining Growth in the Working Age Population

Dramatically Different Patterns of Population Growth by Age

Percent Growth in U.S. Population by Age: 2000-2010

1. Middle age population declines

2. Fewer young adults

3. Rapid growth in the population ≥55

Source: U.S. Census Bureau, 2000
Impacts the Future Workforce

Percent Growth in U.S. Workforce by Age: 2000-2020

Source: U.S. Census Bureau
General Trends in Health-Related Benefit Systems

• Decline in acute traumatic injuries with clear connection to work
• Increase in chronic health conditions
• Erosion of distinction between occupational and non-occupational illness and injury
• Increase in medical and indemnity costs (health insurance, disability programs, workers’ compensation)
• Cost shifting between insurance programs
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

Most Costly Health Risk Factors

- Depression - $2,184 more/year
- High blood glucose – $1,653 more/year
- High blood pressure – $1,378 more/year
- Obesity - $1,091 more/year
- Physically inactive - $606 more/year
- Tobacco use - $587 more/year
- High stress - $413 more/year

Economic Necessity: TWH™

• Company health & employee health are interdependent!

• Employees:
  - Spend >1/3 of day at work
  - Limited supply
  - Getting older

• Employers pay for:
  - 36% of the nation’s healthcare expenditures
  - Workers’ compensation claims
Health & Productivity Management

• Increasing Emphasis on Productivity, Absenteeism, “Presenteeism”

• More companies are paying workers to stay healthy!
  • 53% in 2008
  • 61% in 2009

http://www.time.com/time/business/article/0,8599,1899915,00.html
Promoting Safe & Healthy Work

• Workers who believe they work in a safe environment experience 32% fewer injuries
• When work interferes with family life or family demands affect job performance, risk for injury increases by 37%
• Further evidence that HR and OSH silos must be eliminated

Promoting Safe & Healthy Work

NIOSH Essential Elements of Effective Workplace Programs and Policies for Improving Worker Health and Wellbeing

• 4 categories; 20 elements
• Developed in 2008
• http://www.cdc.gov/niosh/TWH/essentials.html
Organizational Culture & Leadership
1. Develop a “Human Centered Culture”
2. Demonstrate Leadership
3. Engage Mid-Level Management

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 & 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
Rationale for Integrating OSH with Health Promotion (HP)

1. Workers’ risk of disease is increased by exposure to both occupational hazards and risk-related behaviors

2. Workers at highest risk for exposures to hazardous working conditions are often those most likely to engage in risk-related health behaviors and live in higher risk communities

3. Integrating OSH with HP may increase program participation and effectiveness for high-risk workers

4. Integrated OSH and HP may benefit broader work organization issues and the work environment

Sorensen and Barbeau at http://www.cdc.gov/niosh/docs/2012-146/pdfs/2012-146.pdf
WellWorks-2 Study Results: Tobacco Use Cessation

- Randomized control study design
- Smoking quit rates among hourly workers in the worksites that received OSH & WHP interventions were more than doubled relative to the worksites that received only WHP interventions (11.8% vs. 5.9%, p = 0.04)

Sorensen and Barbeau at http://www.cdc.gov/niosh/docs/2012-146/pdfs/2012-146.pdf
Why TWH Integration Matters

- Improves the work environment and the conditions of work, which benefits all workers
- Increases participation in both OSH and health promotion program activities
- Decreases injury, illness, disability and absenteeism rates
- Decreases overall health-related costs
  - Workers’ compensation
  - Personal healthcare costs
  - Indirect costs, e.g., absenteeism and presenteeism
- Increases worker engagement and productivity
SEDENTARY WORK IS HAZARDOUS TO YOUR HEALTH
Sedentary Behavior

• Sedentary Behavior ≠ Physical Inactivity
• Sedentary activities are those with ≤ 1.5 metabolic equivalents
• Sedentary behavior includes:
  – Sitting
  – Lying down
Sedentary Behavior & Health

• Adverse health outcomes include:
  – ↑ Body Mass Index
  – Diabetes Mellitus
  – Cardiovascular Disease (CVD)
  – Cancer (colorectal, endometrial, ovarian, prostate)
  – Mortality (all-cause, CVD)
Stand Up for Health!
Hazards of Sitting

• >220,000 Australians, age 45+
• All-cause mortality increased 15% in those seated 8-11 hours/day
• All-cause mortality increased 40% in those sitting >11 hours per day
• Findings were independent of physical activity levels, controlled for sex, age, BMI, self-rated health and disability

van der Ploeg HP, Chey T, et al. Sitting Time and All-Cause Mortality Risk in 222,497 Australian Adults
Sedentary Behavior & Life Expectancy in the USA

• To determine the impact of sitting & TV viewing on life expectancy

• Cause-deleted life table analysis

• Population life expectancy would ↑ by:
  – 2.00 years if time spent sitting was ↓ to <3 h/day
  – 1.38 years if TV viewing was ↓ to <2 h/day

Sedentary Behavior & CVD

• What about the interrelationship of both sitting time & physical activity with CVD risk?

• Study population from the Women’s Health Initiative, 50-79 years old, CVD free at baseline

• Sitting ≥ 10 h/day vs. ≤ 5 h/day associated with ↑ CVD risk *controlling for physical activity* (Hazard Ratio: 1.18, 95% CI = 1.09 – 1.29)

New AMA Policy

• June 18, 2013: in recognition of potential risks of prolonged sitting employers, employees and others are encouraged to provide alternatives to sitting, e.g., standing work stations and isometric balls

• “Prolonged sitting, particularly in work settings, can cause health problems & encouraging workplaces to offer employees alternatives to sitting all day will help to create a healthier workforce.”
NIOSH Sit-Stand Workstation Pilot

- Project of HealthiestNIOSH, internal TWH program
- Launched October 2012
- 33 workstations units
- Drop-out rate 6%
  - One user left NIOSH
  - One user felt unit too large for small workspace
- User survey 3 months after unit installation
Sit-Stand Workstation Pilot
User Survey Results

• Most common reasons for enrolling in pilot:
  • Decrease sedentary time in the workplace
  • Improve energy
  • Decrease fatigue
  • Try a new technology
  • Help address or improve an *existing* personal health concern
  • Prevent a *future* health condition
  • Lose weight or help maintain weight
Sit-Stand Workstation Pilot
User Survey Results

• Most participants are standing **61-120 minutes** each day in **3-4 episodes** of standing per day
  – Baseline: users most commonly stood 1-2 hours
  – At 3 months: most users stood 2 hours or more
• Some stand more than 240 minutes every day
• Some report standing up more than 6 episodes per day
Sit-Stand Workstation Pilot User Survey Results

• 50% of users voluntarily reported improvements in their general health or in another aspect of their functioning at 3 months
  – Areas of improvement: less back pain, greater energy, better sleep, more alertness, and better concentration throughout the day.

• 83% of participants stated they would recommend the sit-stand workstation to others
Sit-Stand Workstation Pilot Challenges

- The lack of ability to pivot or move the monitor horizontally
- Amount of space the unit takes up in the work environment
- Initial shortage of dual-monitor units to meet demand for those users who work with two monitors simultaneously
Walking Workstation Pilot Update

• Launched in February 2013 at NIOSH Atlanta
• 1 shared workstation unit
• Available from 6am to 6pm in 1 hour scheduling blocks
• 50 Employees Eligible - 17 users enrolled to date

• Most users average 2 hours of treadmill time per week
• Station use for first 8 weeks: ~19 hours per week (range 8-27)
• 165 hours of walking logged to date
• Estimate of calories burned: 26,000 kcal

• Depending on walking speed and body weight, can burn more than 300 calories per hour
• Incentive trial: “NIOSH Walk to Win”
LEARN MORE &
STAY CONNECTED
   Glorian Sorensen, PhD, MPH; Elizabeth Barbeau, ScD, MPH

2. Examining the Value of Integrating Occupational Health and Safety and Health Promotion Programs in the Workplace
   Ron Z. Goetzel, Ph.D.

3. The Economics of Integrating Injury and Illness Prevention and Health Promotion Programs
   Seth A. Seabury, PhD; Darius Lakdawalla, PhD; Robert T. Reville, PhD
www.cdc.gov/niosh/twh
TWH™ in Action!
Quarterly e-Newsletter

Managers’ Buzz
BY: ANITA L. SCHILL, PhD, MPH, MA AND L. CASEY CHOOSEWOOD, MD

We recently learned that according to Gallup, the organization that collects information worldwide on what people think, 19% of employees in U.S. workplaces are “actively disengaged” from their jobs. 52% are “not engaged,” and only 29% are “engaged” (http://thearchainsmokeb.blogspot.com/2012/05/cees-bet-your-stock-on-great-workplace.html). For employers, this means that 71% of employees are either “miserable” or “apathetic.” For far too many employers, this means that time spent at work does not promote overall well-being. This is distressing news for employers, employees, and those of us concerned about Total Worker Health™.

As we reflect on these statistics, can we help but wonder whether workplaces with cultures that protect and promote health, safety, and well-being shift the balance between active disengagement and engagement. TWH™ in Action! offers ideas for how such cultures can be created and resources to support your efforts. In this issue, you'll find tips for employers and managers to help employees decrease stress related to conflicting work-family demands. We're also delighted to present our second report on Promising Practices for Total Worker Health™ featuring Erickson Living. Read about the Erickson program to learn how they busted barriers to employee participation and earned an ROI of $4.00 for every $1.00 spent on their program.

Often people ask us about the scientific rationale for the integrated approach to health protection and promotion that we call Total Worker Health™. We are pleased to announce that our newly released Research Compendium, The NIOSH Total Worker Health™ Program: Seminal Research Papers 2012, presents three seminal papers on this very topic. Read more in New Initiatives and Resources. The four NIOSH-funded Centers of Excellence to Promote a Healthier Workforce are also delivering research findings and products to support the Total Worker Health™ approach. To catch up with their most recent activities check out the Center updates. Plus, there are a number of upcoming conferences where the most current research and program practices will be shared. Take a look at the section on Conferences, Webinars, and Trainings in Support of NIOSH Total Worker Health™ to get the details.

As always we hope you enjoy this newsletter. We'd love to hear your comments and stories about TWH™ in Action! Please e-mail us at twh@cdc.gov and look for us on Twitter (@TotalWorkerHealth).
Free CEU

Sleep Problems in Chronic Fatigue Syndrome (CFS)
(1.0 hours CEU credit)

Objectives: The Sleep Problems in Chronic Fatigue Syndrome (CFS) is a web-based training course designed to teach clinicians and other healthcare professionals about the treatment of sleep problems in persons with CFS. Lesson 1 provides a brief overview of CFS. Lesson 2 gives an overview of sleep problems in CFS. Lesson 3 reviews how to evaluate CFS patients for sleep abnormalities. Lesson 4 presents interventions to optimize sleep in CFS. After the lessons, a case study will be presented.

http://wwwdev.cdc.gov/cfs/education/sleep/index.html
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Questions???