ADDRESSING FUTURE WORKFORCE NEEDS THROUGH TOTAL WORKER HEALTH®

Sara L. Tamers, PhD, MPH and Chia-Chia Chang, MPH, MBA
Office for Total Worker Health®
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention

2nd International Symposium to Advance TWH
Tuesday, May 8, 2018

The findings and conclusions in this presentation have not been formally disseminated by the National Institute for Occupational Safety and Health, and should not be construed to represent any agency determination or policy.
Workshop Goal

• To provide an overview of salient safety, health, and well-being issues that will affect our future workforce and evidence-based measures by which to address them using the Total Worker Health® paradigm
Workshop Agenda: 8:30am-12pm

- Welcome and Introductions (8:30am-8:50am) – Sara
- Part I (8:50am-10:00am) – Sara
  - Research and background on worker safety, health, and well-being
  - Issues relevant to advancing the well-being of the future workforce
  - Total Worker Health®
  - Q & A
- BREAK (10:00am-10:10am)
- Part II (10:10am-11:10am) – Chia-Chia
  - Applying principles to advance worker well-being
  - Fundamentals of Total Worker Health®
  - Q & A
- BREAK (11:10am-11:20am)
- Part III (11:20am-11:55am) – Chia-Chia and Sara
  - Interactive group work
  - Report back to full group and discussion
- Resources and Final Thoughts (11:55am-12pm) – Chia-Chia
INTRODUCTIONS:

• Name
• Affiliation
  • Role
• Familiarity with *Total Worker Health®*
PART I:

• Research and background on worker safety, health, and well-being
• Issues relevant to advancing the well-being of the future workforce
• Total Worker Health®
PART I:
Research and Background on Worker Safety, Health, and Well-Being
Health Threats Facing the 21st Century Population

1. Heart disease
2. Cancer
3. Chronic lower respiratory disease
4. Accidents (unintentional injuries)
5. Stroke
6. Alzheimer’s
7. Diabetes
8. Influenza and pneumonia
9. Kidney disease
10. Suicide

*Annually there are around 2,596,993 deaths registered in the U.S. with the leading top 10 causes accounting for nearly 75% of all deaths.

Source: Death in the United States, 2011, CDC, last updated 15 March 2013
Common Invisible Illnesses

- ADHD
- Anxiety disorders
- Allergies
- Asthma
- Autism
- Bipolar disorder
- Brain injuries
- Chronic fatigue syndrome
- Chronic pain
- Circadian rhythm sleep disorders
- Celiac Disease
- Crohn's disease
- Depression
- Diabetes
- Endometriosis
- Epilepsy
- Fibromyalgia
- Food allergies
- Hyperhidrosis
- Inflammatory bowel disease
- Interstitial cystitis
- Irritable Bowel Syndrome
- Lactose Intolerance
- Lupus
- Lyme Disease
- Migraines
- Multiple Sclerosis
- Multiple Chemical Sensitivity
- Myasthenia Gravis
- Narcolepsy
- Personality disorders
- Primary immunodeficiency
- Reflex Sympathetic Dystrophy
- Rheumatoid arthritis
- Schizophrenia
- Scleroderma
- Sjogren's syndrome
- Transverse Myelitis
- Ulcerative Colitis

Approximately 96% of individuals who live with a health concern have what is known as an “invisible illness”

OCCUPATIONAL HEALTH

By AMERICAN HEART ASSOCIATION NEWS

Researchers evaluated 5,566 employed workers to determine how many met the ideals for blood pressure, body mass index, total cholesterol, blood sugar, physical activity, smoking and diet quality.

Some of the occupations that registered the worst numbers were:
1. Police and firefighters
2. Service occupations (Includes people who prepare food, do building and grounds keeping, cleaning, and deliver personal care—hairdressers, animal care, makeup artists, funeral services, healthcare support, and entertainment.)
3. Sales, office and administrative support

Some of the occupations that registered the best numbers were:
1. Management and professionals
2. Healthcare practitioners (doctors and nurses)
3. Arts, entertainment, sports and media

Why is Work so Influential?

• 60% (~156 million) of non-institutionalized adults work
  – Up to half of waking hours at work/working
  – At least 90,000 hours at work/working
• Work contributes to “time poverty”
• Work impacts policies, norms, compensation and benefits, and built environment that impact choices/outcomes both at and beyond work
  – Paid time-off, schedules and shift work, food and physical activity options, hazards and exposures-including psychosocial, health insurance, environments designed to accommodate worker diversity, meaningful work and engagement, workers’ compensation and retirement benefits...which impact safety, health, and well-being of ALL workers both on- and off-the-job

Source: NIOSH. TWH. https://www.cdc.gov/niosh/twh/totalhealth.html 2017
TOMORROW IS THE MANDATORY MEETING ON EMPLOYEE HEALTH AND WELL-BEING.

THE MEETING STARTS AT 6 A.M., SO IT WILL INTERFERE WITH YOUR SLEEP AND NOT YOUR WORK.

DOESN'T THAT SEND A MESSAGE THAT WORK IS MORE IMPORTANT THAN HEALTH?

I HOPE SO. THAT'S THE THEME OF THE MEETING.

HEALTHY EMPLOYEES ARE UNPRODUCTIVE.

THEY'RE ALWAYS EXERCISING OR EATING FRUIT WHEN THEY SHOULD BE WORKING.

WE PREFER EMPLOYEES WHO WORK HARD AND DIE BEFORE THEIR PENSIONS START PAYING OUT.

SUDDENLY I FEEL SICK. RIGHT ON SCHEDULE!
PART I: Issues Relevant to Advancing the Well-Being of the Future Workforce
What Comes to Mind When You Think of the Future of Work?

Source: NIOSH. TWH. https://www.cdc.gov/niosh/twh/totalhealth.html 2017
The future of the workforce is a global issue because the world’s 3.2 billion workers are increasingly unwell.

### They Face Significant Economic Insecurity

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<td>74%</td>
<td>Live on less than $13 per day</td>
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<td>45%</td>
<td>Work in low-skill or manual occupations</td>
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<td>77%</td>
<td>Work in part-time, temporary, “vulnerable,” or unpaid jobs</td>
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### They Are Growing Older and Less Healthy

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<td>18%</td>
<td>Of labor force over 55 by 2030</td>
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<td>52%</td>
<td>Of adults overweight or obese</td>
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<tr>
<td>9%</td>
<td>Of adults with diabetes</td>
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<td>76%</td>
<td>Are “struggling” or “suffering” in their physical wellbeing</td>
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### They Are Stressed, Unhappy, and Even Unsafe at Work

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<td>38%</td>
<td>Suffer from excessive pressure on the job</td>
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<td>24%</td>
<td>Are actively disengaged at work</td>
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<td>2.3M</td>
<td>Annual work-related deaths</td>
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<tr>
<td>313M</td>
<td>Annual work-related accidents</td>
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Source: ILO; WHO; Gallup-Healthways; Towers-Watson; Tampere University of Technology/Workplace Safety and Health Institute Singapore/VIT Technical Research Centre of Finland
Unwellness at work is incredibly costly!

$1,100b Costs of chronic disease

$250b Costs of work-related injuries & illnesses

$300b Costs of work-related stress

$550b Costs of disengagement at work

$2.2 trillion annual loss in the United States (12% of GDP)

Source: Milken Institute, UC-Davis, EU-OSHA, Gallup
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
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- Aging Workforce and Older Workers
- Vulnerable Worker Populations
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- Increasing Number of Small Employers
- Global and Multinational Workforce

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- 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
“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?”
Work-related stress is the NO. 1 WORKFORCE HEALTH ISSUE and a major occupational risk, ranking above physical inactivity and obesity.

Source: 2013 Towers Watson Survey

Best *antidote for work stress*: Improve the job!
## Total Worker Health

### Workplace Stress's Biggest Impact

The Stanford study found the lack of health insurance had the biggest impact on physician-diagnosed illness and mortality, while work-life conflict greatly affected people’s mental and physical health in self-reporting.

#### Top Stressors on Doctor-Reported Illnesses

- **Job Insecurity**
- **Long Work Hours/Overtime**
- **Low Social Support at Work**
- **Low Job Control**
- **Secondhand Smoke Exposure**
- **Unemployment**
- **Exposure to Shift Work**
- **High Job Demands**
- **Low Organizational Justice**
- **No Health Insurance**

#### Top Stressors on Mortality

- **Secondhand Smoke Exposure**
- **Work-Family Conflict**
- **Long Work Hours/Overtime**
- **No Health Insurance**
- **Unemployment**
- **Low Job Control**

#### Top Stressors on Self-Rated Physical Health

- **Low Organizational Justice**
- **Low Social Support at Work**
- **No Health Insurance**
- **Low Job Control**
- **High Job Demands**
- **Secondhand Smoke Exposure**
- **Job Insecurity**
- **Unemployment**
- **Work-Family Conflict**

#### Top Stressors on Self-Rated Mental Health

- **Long Work Hours/Overtime**
- **Exposure to Shift Work**
- **Low Social Support at Work**
- **Low Job Control**
- **Job Insecurity**
- **Secondhand Smoke Exposure**
- **Low Organizational Justice**
- **High Job Demands**
- **Unemployment**
- **Work-Family Conflict**

Odds ratios higher than 1 indicate that the exposures listed here increased the odds of a negative health outcome. No health insurance, for instance, increased the odds of a physician-diagnosed health condition by more than 100 percent. Odds ratios for exposures marked with † were calculated with two studies or fewer, and may be less reliable.

“If employers are serious about managing Workplace stress*—such as long hours, job insecurity and lack of work-life balance—the health of their workforce, and controlling their health care costs, they ought to be worried about the environments their workers are in,” says Jeffrey Pfeffer, a Stanford professor of organizational behavior.

*Contributes to at least 120,000 deaths each year and accounts for up to $190 billion in health care costs.

Source: https://www.gsb.stanford.edu/insights/why-your-workplace-might-be-killing-you
Issues Relevant to Advancing Worker Well-being Through Total Worker Health®

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• Global and Multinational Workforce

Policy Issues
• Health Information Privacy
• Reasonable Accommodations
• Return-to-Work
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• Family and Medical Leave
• Elimination of Bullying, Violence, Harassment, and Discrimination
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New Employment Patterns
• Contracting and Subcontracting
• Precarious and Contingent Employment
• Multi-Employer Worksites
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• Financial and Job Security

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Potential Effects of New Employment Patterns

❖ “Gig Economy”
❖ Contingent, temporary, contractual, part-time, seasonal, precarious work
   ❖ Job extinction and creation
• Job and financial uncertainty, interrupted work, reductions in earnings
• Minimal “traditional” job/career advancement
• Less training resulting in increased injuries/illnesses/fatalities
• Lack of benefits that come from traditional employment
  – Negative consequences for the worker and society as risk for severity of injury, disability, and costs may be elevated
• Employers of contingent labor escape the financial incentives that drive decisions to eliminate hazards for other workers
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Potential Effects of Work Organization

- Organization of work (e.g., scheduling, flexibility, intensification, and autonomy) associated with job stress
- Long work hours (48 + hours/week) and/or shift work = ~ 1 in 5 U.S. workers
  - Increased risk of poor sleep quality and fatigue, unhealthy behaviors, hypertension, cancer, heart disease, diabetes, obesity, violence, burnout, psychological stress, stroke severity...
  - Increased occupational injuries/fatalities
  - Increased motor vehicle accidents (leading cause of workplace death: 36%)
  - Increased physical and mental health issues leading to increased absenteeism and presenteeism, reduced productivity
  - Fewer health-conscious lifestyle choices made

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How Can We Age Productively?
Aging productively involves the entire worker lifecourse perspective.

The Silver Tsunami

- 78 million Baby Boomers born between 1946 and 1964
  - More workers in their fifties and sixties
  - 1 out of 4 workers are projected to be over age 55 by the year 2020

- Increased Longevity and Function
  - 1960: life expectancy for U.S. women was 73 years and for men 66 years; 2016: life expectancy for women is 81 years and 76 years for men

- Financial Need
  - ~ 29% of 55+ year-olds have neither retirement savings nor a traditional pension plan

- Talent Shortage
  - Baby Bust of 1965–1976 produced many fewer younger workers to take over
  - Older workers increasingly being asked to stay on the job to fill skills gap or mentor

- Work Enjoyment, Productivity, and Longevity

Creating 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 and lifestyle programs
- Accommodate medical self-care
- Invest in training and skill-building for all workers
- Encourage cross-generational interactions
- Manage reasonable accommodations and return to work
- Require aging workforce management skills training for supervisors

Source: Loepke et al., 2013; Silverstein, 2008 in Chosewood & Nigam, 2012; Grosch & Pransky, 2010
PROductive AGING and WORK

Overview

Today, one in every five American workers is over 55, and in 2050, one in four American workers will be over 55, according to the U.S. Bureau of Labor Statistics. Although there is no consensus on the age at which workers are considered “older workers,” the aging workforce phenomenon is real. These demographic shifts have made the issue of healthier workers, especially those of advanced age, much more pressing. Aging is a relevant process experienced by all workers throughout their life. Vital to any workplace is the safety, health, and well-being of workers, from their first day on the job to their last.

National Center for Productive Aging and Work (NCPAW)

The National Center for Productive Aging and Work (NCPAW) advances lifelong well-being for workers of all ages and supports a productive aging across the workforce. The Center continues to work on such important issues as how organizations are addressing the needs of an aging workforce and identifying interventions and strategies to support both workers and all age groups and organizations that employ them. The Center is hosted by the NIOSH Office for Total Worker Health®.
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

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

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

New Employment Patterns
• Contracting and Subcontracting
• Precarious and Contingent Employment
• Multi-Employer Worksites
• Organizational Restructuring, Downsizing and Mergers
• Financial and Job Security
Pause and Reflect: In what ways does your organization’s leadership prioritize your safety, health, and well-being?
What does Healthy Leadership look like?

- Sets vision and strategy
- **Motivates, engages, and empowers**
- Respects and supports
- Proactive
- Recognizes positive status quo
- Seeks change
- Mobilizes necessary resources
- Sets clear expectations and direction
- Asks questions
- Trusts autonomy and independence

- **Listens** and actively **communicates** well
- Emphasizes transparency
- Intervenes early if performance/conduct issues arise (**co-worker relationships**)
- Recognizes and rewards regularly
- Attends to own and team’s work/life issues (**job flexibility**)
- Learns and evolves continually
- Seeks help when needed

**Healthy leadership = greater worker, safety, health, and well-being**
Meaningful Work Should Be Every CEO’s Top Priority

by Jim Keane

NOVEMBER 05, 2015
Meaningful Work

- Finding meaning in one's work (social purpose, moral correctness, achievement-related pleasure, autonomy, recognition, positive relationships) has been shown to:
  - Increase motivation, engagement, empowerment, career development, job satisfaction, individual performance, personal fulfillment, life satisfaction, overall well-being...
  - Decrease absenteeism, stress, depression...
- Healthy leadership is key to meaningful work

Employee Engagement

• Being engaged in one’s work (emotionally and enthusiastically committed to the organization and its goals) is critical

• 2014 Gallup Well-being Survey
  – 31.5% employees engaged
  – 51.0% not engaged
  – 17.5% actively disengaged—same health metrics as being unemployed

• 2016 Gallup Well-being Survey
  – 34.1% employees engaged

• Healthy leadership is key to employee engagement

Source: 2014 and 2016 Data Gallup Survey on Employee Engagement www.gallup.com
Job Flexibility

- Demands on workers and families are increasing, affecting well-being in all spheres of life
- Work-life balance is a concern of ALL workers
  - Nearly 60% of workers experience conflict
  - At least 20% report they often/always are in conflict
- Work can be modified to improve balance and support well-being using Alternative Work Schedules, telework, flexi-time, etc.
  - Avoidance of “all or none” policies or blanket approaches
  - Reasonable accommodations
- Healthy leadership is key to job flexibility

Issues Relevant to Advancing Worker Well-being Through Total Worker Health®

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Total Worker Health
Advancing Worker Safety, Health, and Well-Being

WORK LIFE
Balance

When work is constantly popping up in your head or in your inbox, even on vacation you can feel like you never left the office.

Balancing Work and Life is HARD IN THE U.S.

U.S. RANKS 30TH OUT OF 38 COUNTRIES IN WORK/LIFE BALANCE, IN THE BOTTOM 20%

**NETHERLANDS**
- Employees working 50 hours/week or more: 0.5%
- Time devoted to leisure and personal care: 15.9 HOURS/DAY

**UNITED STATES**
- Employees working 50 hours/week or more: 11.4%
- Time devoted to leisure and personal care: 11.4 HOURS/DAY

FULL-TIME U.S. WORKERS SPEND AN AVERAGE OF 8.15 HOURS PER DAY WORKING

**men**
- 8.35 HOURS

**women**
- 7.84 HOURS

Source: https://smallbiztrends.com/2018/02/work-life-balance-statistics.html; Family Living Today/Now Sourcing
Of full-time employees in the U.S., **DO NOT STRONGLY BELIEVE THEY HAVE WORK/LIFE BALANCE**

- 66%

Of employed adults in the U.S. work on an average **SATURDAY, SUNDAY, OR HOLIDAY**

- 33%

Even as our culture shifts toward workplace gender equality and efficient technology, it seems the 40-HOUR WORK WEEK JUST KEEPS GETTING LONGER.
Pause and Reflect: In which ways does your organizational culture support you to leave work at work and in which ways does it not?
WORK ENVIRONMENT ISSUES

What has the most negative impact on work/life balance?

60%  
Bad/overbearing bosses

39%  
Constantly working beyond standard business hours

39%  
Inflexible work hours/time off scheduling

31%  
Incompetent coworkers

30%  
Long commutes

Source: https://smallbiztrends.com/2018/02/work-life-balance-statistics.html; Family Living Today/Now Sourcing
24/7 TECHNOLOGY

40% say it’s okay to answer an urgent work email at the dinner table

57% of employees say technology has ruined the modern family dinner because employers expect responses at any hour

Source: https://smallbiztrends.com/2018/02/work-life-balance-statistics.html; Family Living Today/Now Sourcing
Lose Your Balance, and
YOU COULD FALL HARD
**SHORT-TERM**

**BAD WORK/LIFE BALANCE CONSEQUENCES AT HOME**

- **38%** Lack of focus/engagement
- **51%** Missed important life events

**BAD WORK/LIFE BALANCE CONSEQUENCES AT WORK**

- **36%** Poor productivity
- **68%** Poor morale

- **40%** Ruined time spent with family/friends (conference calls, called away from activities)
- **50%** Less time with family and friends

- **41%** High turnover
- **41%** Feeling burnt-out/fatigued

Employees working over 55 hrs/week are at higher risk of coronary heart disease and stroke.

Employees working over 55 hrs/week are at higher risk of depression and anxiety than those working 35-40 hrs/week.

Employees expected to be available to work in their off-hours leads to higher stress and cortisol levels throughout the day.

1.66x higher risk of depression
1.74x higher risk of anxiety

What Employers and Governments Can Do

Employees say employers should...

69% offer flexible schedules
55% allow remote working
27% offer unlimited paid time off
27% restrict email responses (e.g., can only respond 9-5)
24% establish meeting-free blocks of time

Source: https://smallbiztrends.com/2018/02/work-life-balance-statistics.html; Family Living Today/Now Sourcing
TACTICS OF THE TOP 3 WORK/LIFE-BALANCED COUNTRIES

1. NETHERLANDS
   - One of the shortest workweeks in the world: 4 days/29 hours on average
   - Paid vacations, maternity and paternity leave, and the right to reduce hours to part-time without losing your job

2. DENMARK
   - Workers choose when to start the workday and whether to work from home
   - Minimum 5 weeks paid vacation for all workers

3. FRANCE
   - Policy encouraging employees to disconnect from work email while off work
   - 25 federally-mandated vacation days every year

Source: https://smallbiztrends.com/2018/02/work-life-balance-statistics.html; Family Living Today/Now Sourcing
**WHAT YOU CAN DO**

**SWITCH OFF YOUR PHONE**
Checking updates and emails from work during your off time interrupts your relaxation and stresses out your body.

**MAKE TIME FOR EXERCISE**
Exercise boosts energy and concentration, but is usually the first item you scratch off your schedule when you get busy.

**ELIMINATE THE EXTRAS**
If you lose hours a day needlessly scrolling through Facebook, try a productivity software (e.g. Freedom, RescueTime) so you can focus on the important and rewarding parts of life.

**DELEGATE AND OUTSOURCE**
Instead of trying to do everything yourself, discuss sharing chores with your spouse or responsibilities with your coworkers.

---

Individually-Focused Efforts 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...” Sir Michael Marmot
PART I: Total Worker Health®
Defining *Total Worker Health*®

...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.
Total Worker Health®

Keep Workers Safe

Establish Workplace Policies, Programs, and Practices that Grow Health

Create Worker
New Employment Patterns

Policy Issues

Changing Workforce Demographics

Control of Hazards and Exposures

Organization of Work

Built Environment Supports

Compensation and Benefits

Leadership

Community Supports
**Total Worker Health®: What’s so Special?**

- **Synergistic risks addressed**
  - Workers at highest risk for exposures to hazardous working conditions most likely to engage in risk behaviors at work and home, and live in higher risk communities

- **Increased intervention participation**
  - Workers who participate in worksite health protection programs more likely to participate in worksite wellness programs

- **Outcome: safer AND healthier workers**

Total Worker Health® Key Tenets

• What it is...
  – Total Worker Health (TWH) examines how the work organization and work itself can holistically influence worker safety, health, and well-being
  – TWH embraces voluntary, participatory interventions
  – TWH programs protect workers’ rights and privacy

• What it is not...
  – TWH does not “blame the worker”
  – TWH is not consistent with workplace policies that discriminate against or penalize workers for their individual health conditions or create disincentives for improving health
  – TWH is not a “wellness/health promotion program” that has been implemented without simultaneously providing safe and healthful working conditions
How Do We Know It When We See It?
Indicators of Integrated Approaches

• Organizational leadership and commitment
• Coordination between safety and health efforts
• Supportive organizational policies and practices
  – Accountability and training
  – Coordinated management and employee engagement strategies
  – Supportive benefits and incentives
  – Integrated evaluation and surveillance
• Comprehensive program content

http://journals.lww.com/joem/toc/2013/12001
Models that Inform our Understanding of Integration in the Context of Total Worker Health®

Example Continuum of Approaches

- Coordinated Efforts
- Linked Messages
- Multi-level strategies
- Worker/management engagement
- Supportive benefits/incentives
- Integrated evaluation/data
- Integrated management systems
# Comparison of Models

<table>
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<th>Intervention Target</th>
<th>Traditional Health Promotion Programs</th>
<th>Health Protection Programs</th>
<th>Integrated Approaches</th>
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<tr>
<td>Individual Behaviors</td>
<td>Work Environment</td>
<td>Individual Behaviors and the Work Environment</td>
<td></td>
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<table>
<thead>
<tr>
<th>Assumptions about Responsibility for Worker Health</th>
<th>Individual Worker</th>
<th>Organization</th>
<th>Shared Between Worker and Management</th>
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</thead>
</table>

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<thead>
<tr>
<th>Audience</th>
<th>Workers</th>
<th>Management and Occupational Safety and Health Professionals</th>
<th>Workers, Union, Management</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Program Planning</th>
<th>Outside Experts</th>
<th>Managers and Occupational Safety and Health Professionals</th>
<th>Collaboration among Different Committees and Programs</th>
</tr>
</thead>
</table>

Glorian Sorensen, 2010; Steven Sauter, NIOSH, 2011

IOM Employee Total Health Management
Center for Work, Health and Well-being Conceptual Model

Enterprise Characteristics

- Workplace Policies, Programs, & Practices
  - Degree of integration
  - Indicators of integration

Conditions of work
- Physical Environment
- Organization of Work
- Psychosocial Factors
- Job Tasks & Demands

Worker Proximal Outcomes
- Health & Safety Behaviors
- Engagement in Programs
- Beliefs
- Knowledge
- Skills

Worker Outcomes
- Injury
- Illness
- Wellbeing

Enterprise Outcomes
- Productivity & Quality
- Turnover & Absence
- Health Care Costs

Pronk: Key Words, Characteristics and Factors of Integrated Health Protection and Health Promotion

Punnett: Working Conditions Link to Health Outcomes Directly and Through Health Behaviors
How to Get Buy-In? Safer and Healthier Workers = Good for All

• Organizations with exemplary safety, health, environmental efforts outperform those without
• Companies with high worker engagement perform better than those with lower engagement (safety incidents, customer ratings, quality, turnover, productivity, and profitability)
• Mandating/enforcing policies-paid sick leave-for workers can help reduce the prevalence of worker non-fatal illness/injury and reduce economic burden
• Policies providing schedule flexibility create healthier, more productive workers
• Workers less likely to be injured on-the-job are more trusting of their employer and feel more supported, less stressed, happier, report an overall better work environment, remain in their positions for longer durations
• Overall, employers who commit to a safer and healthier work environment, create a better worker experience and more profitable bottom-line
Q & A
BREAK
PART II:

• Applying principles
• Fundamentals of *Total Worker Health®*
APPLYING PRINCIPLES TO ADVANCE WORKER WELL-BEING
“Well-Being”?

[Images of various individuals and captions]

“Science in a Spacecraft by NASA - National Aeronautics and Space Administration

“Making a Space Station — The Idea Behind the C.E.S.S. [Crew Equipment System in Space] Challenge”

“Advancing Worker Safety, Health, and Well-Being”
Worker Well-Being: Draft Framework

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.
Workplace Physical Environment & Safety Climate
Health Status
Work Evaluation & Experience

Risk of obesity by number of work stressors [Nursing home study, CPHNEW]

Stressors: low decision latitude, poor co-worker support, heavy lifting, night work, physical assault at work in past 3 months.
(Multivariable models adjusted for gender, age, education and region.)
What influences my safety, health & well-being?

Does this job help make me healthier?

How can my workplace improve my well-being?

Does my boss care if I am healthy and safe?
Austria: Employer obligations to evaluate psychological work strain

Context

Preventing mental-health-related problems in the workplace is crucial to preventing long spells of sick and labour market drop-out. Obliging employers to evaluate work strain and involve occupational psychology is one promising way to address the issue.

Programme

The new Austrian Labour Protection Act came into force in January 2013. The act obliges employers to evaluate psychological strain in the workplace, implement specific measures in the event of problems, and evaluate the effectiveness of such measures. The new act’s predecessor already compelled employers to comprehensively protect the health of their employees, which implicitly included mental health problems. The new act ushers in some important changes.

First, it identifies psychological strain (e.g., lack of social support or feedback from line managers, unclear or conflicting work targets, job monotony) as a risk factor. Second, it defines health as physical and mental. Third, it requires employers not only to secure a healthy work environment, but to actively evaluate whether there is psychological strain in their enterprise. Such evaluations should be carried out systematically, with a steering committee involving employee representatives and using standardised screening instruments or questionnaires. Fourth, the workplace evaluation must have a preventive focus—in other words, evaluate work tasks and how they are organised, the working environment, and operational procedures. Fifth, the act requires a workplace evaluation in the event of incidents with significantly elevated psychological strain. Sixth, occupational psychologists are explicitly included as qualified professionals (in addition to chemists, toxicologists, or ergonomists) who may be mandated to conduct evaluations as well as providing acknowledged preventive services.

Outcomes

The explicit recognition of psychosocial risks and the inclusion of occupational psychologists as professionals who can be mandated to evaluate workplace risks and develop suitable measures is promising. Although no evaluation is yet available, the role of occupational psychologists is still not wide-reaching enough. They are not acknowledged as preventive professionals and can be mandated only for up to 25% of the total time enterprises are obliged to engage occupational health and safety specialists every year. Moreover, the increased involvement of occupational psychologists intended by the new Labour Protection Act may not materialise because it is only voluntary for employers to work with them.

Workplace Policies and Culture

Raising worker pay reduces smoking

Amazon staffer strikes back against New York Times

Increasing worker pay reduces smoking and unionization rates—which are often directly correlated with wages. Their analysis found that, overall, smoking prevalence was lower in states with higher minimum wages or higher rates of unionization.
Managed by Q’s ‘Good Jobs’ Gamble

Forgoing the gig-economy model, a start-up bets on a strategy that puts cleaning-service workers on a professional path.

by ADAM DAVIDSON  Photographs by JOSÉ LUIS TRUJILLO

FEB. 26, 2016

**EMPLOYEES ARE 14.8% MORE ENGAGED**
when provided standard-of-living raises

**EMPLOYEES ARE 13.8% MORE ENGAGED**
when provided time off to recharge

**EMPLOYEES ARE 18.0% MORE ENGAGED**
when provided flexible hours

**EMPLOYEES ARE 18.1% MORE ENGAGED**
when provided time for healthy activities at work
Workplace Flexibility

17% Increased productivity

Reduced turnover.
Customer retention 96%
$6 million 2 years

1/3 turnover rate

# Access to Paid Leave and Other Supports in U.S. Jobs

<table>
<thead>
<tr>
<th>Policy</th>
<th>Total (%)</th>
<th>Wages In Bottom Quartile (%)</th>
<th>Part-Time (%)</th>
<th>Full-Time (%)</th>
<th>Small Business (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid family leave</td>
<td>12</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Unpaid family leave</td>
<td>87</td>
<td>80</td>
<td>79</td>
<td>89</td>
<td>78</td>
</tr>
<tr>
<td>Short-term disability</td>
<td>40</td>
<td>17</td>
<td>14</td>
<td>49</td>
<td>26</td>
</tr>
<tr>
<td>Paid vacation</td>
<td>76</td>
<td>48</td>
<td>34</td>
<td>91</td>
<td>65</td>
</tr>
<tr>
<td>Paid sick leave</td>
<td>61</td>
<td>31</td>
<td>24</td>
<td>74</td>
<td>49</td>
</tr>
<tr>
<td>“Flexible workplace”</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

Paid Sick Leave

• Employers could save $16 - $56 billion per year or $375 - $1,300 per worker per year
  – Based on cost of $19 billion per year to provide paid sick leave
• Offering paid sick leave could be considered as an investment rather than as a cost without any return

• Estimating impact on reducing:
  – Job turnover
  – Presenteeism
  – Non-fatal workplace injuries


You’ve got mail!
<table>
<thead>
<tr>
<th>Overall life satisfaction</th>
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<tr>
<td>Social and familial relationships</td>
</tr>
<tr>
<td>Financial health</td>
</tr>
<tr>
<td>Community engagement</td>
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<td>Lifestyle</td>
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Traditional Hierarchy of Controls

Hierarchy of Controls

- **Elimination**: Physically remove the hazard
- **Substitution**: Replace the hazard
- **Engineering Controls**: Isolate people from the hazard
- **Administrative Controls**: Change the way people work
- **PPE**: Protect the worker with Personal Protective Equipment

Most effective

Least effective
Hierarchy of Controls: TWH

- **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
Pause and Reflect:

Which of these domains will become more important in the future?

How much are these domains aligned in your organization?
FUNDAMENTALS OF TWH
1. Demonstrate **leadership commitment** to worker safety and health at all levels of the organization

2. **Design work** to eliminate or reduce safety and health hazards and promote worker well-being

3. Promote and support **worker engagement** throughout program design and implementation

4. Ensure **confidentiality and privacy** of workers

5. **Integrate** relevant systems to advance worker well-being

---

**Fundamentals of Total Worker Health:**

**Defining Elements**

[https://www.cdc.gov/niosh/docs/2017-112/pdfs/2017_112.pdf](https://www.cdc.gov/niosh/docs/2017-112/pdfs/2017_112.pdf)
Defining Element #1:
Leadership Commitment

<table>
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<th>No Improvement, %</th>
<th>Slight Improvement, %</th>
<th>Substantial Improvement, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very</td>
<td>10.7</td>
<td>36.6</td>
<td>44.7</td>
</tr>
<tr>
<td>Somewhat</td>
<td>42.6</td>
<td>47.6</td>
<td>44.7</td>
</tr>
<tr>
<td>Marginal</td>
<td>42.7</td>
<td>15.9</td>
<td>10.5</td>
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*χ² = 20.27 (P = 0.0025, df = 5).

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<tr>
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<td>51.9</td>
<td>48.8</td>
<td>46.3</td>
</tr>
<tr>
<td>Marginal</td>
<td>29.6</td>
<td>14.6</td>
<td>7.3</td>
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*χ² = 13.40 (P = 0.0037, df = 5).
I enjoy doing my work.

It would take a lot to get me to leave this organization.

How often do you feel tense, anxious, or depressed?

- NEVER STRESSED: 3.1%
- RARELY STRESSED: 8.0%
- SOMETIMES STRESSED: 9.8%
- OFTEN STRESSED: 47.8%
Demonstrate leadership commitment to worker safety and health at all levels of the organization

- Ensure accountability
- Engage mid-level management
- Provide sufficient resources
- Set examples
Defining Element #2: Eliminate or reduce hazards

National Standard of Canada

CAN/CSA-Z1003-13/BNQ 9700-803/2013

Psychological health and safety in the workplace — Prevention, promotion, and guidance to staged implementation

Prepared by

CSA Group

Bureau de normalisation du Québec

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Psychological Health and Safety Management System

Workplace Factors:
• Job demands and requirements of effort
• Job control or influence
• Reward
• Fairness
• Support

Minimum human needs and mental health at work:
• Physical & psychological safety
• Self-worth, esteem, social justice
• Self-efficacy, accomplishment, autonomy
• Belonging
Design work to eliminate or reduce safety and health hazards and promote worker well-being

• Apply prevention approach
• Ensure safe and healthy working conditions before developing interventions targeting workers’ behavior
• Emphasize working conditions and the work environment
Defining Element 3: Worker Engagement

If they build it...
They will come

Photo from Field of Dreams Movie Site http://www.fodmoviesite.com/25thanniversary/
Quantum Workplace and limeade. 2015. Workplace well-being. Provide meaningful benefits to energize employee health, engagement, and performance

How Google And Others Help Employees Burn Off Stress In Unique Ways

Recognizing the wear and tear of workplace stress, companies are getting creative about how to combat it.
HERE’S HOW WE’RE GOING TO GET THERE:

Focus on these 5 areas will provide the greatest impact and improvements to our community:

**OBESITY PREVENTION**
We will reduce obesity by creating a healthier community through better nutrition and active living.

**CARE FOR THE UNINSURED**
We will increase access to care for the uninsured by removing physical and social barriers to quality healthcare.

**HEALTH FOR THE INSURED**
We will maximize health for the insured by creating innovative ways to streamline primary and preventive care.

**KINDERGARTEN READINESS**
We will improve kindergarten readiness by ensuring that children ages birth through five have access to quality early childhood education.

**COMMUNITY PRIDE**
We will build community pride by increasing social connections that engage more citizens to express love for where they live, work, and play.
Promote and support worker engagement throughout program design and implementation

- Establish joint committees
- Invite participation and feedback
- Provide frequent, clear communications
- Increase social interactions & build relationships
Defining Element 4: Ensure Confidentiality and Privacy of Workers

- Sensitive individual worker data can be abused
- Stigma, discrimination, loss of employment
- Workplace policies that penalize workers for their health conditions or create disincentives for improving health are not consistent with the TWH approach
- Confidentiality considerations
  - Health risk assessments
  - Electronic health records
  - Self-reported survey data
Protect Privacy: Technology

Photo Credit: Chesky via Shutterstock.com
Ensure confidentiality and privacy of workers

• Build long-term culture and trust
• Recognize process improvements
• Consider using third-party to access data
Defining Element 5: Integrate Relevant Systems
<table>
<thead>
<tr>
<th>Potential Evaluation Metrics</th>
<th>Occupational Safety and Health</th>
<th>Health Outcomes</th>
<th>Business Outcomes</th>
<th>Work Environment</th>
<th>Program Delivery</th>
<th>Health Risks</th>
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<td>Workers’ compensation</td>
<td>Disease burden</td>
<td>Health care costs</td>
<td>Culture of health</td>
<td>Participation in assessments</td>
<td>Self-perceived health</td>
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<td>Safety metrics</td>
<td>Biometrics</td>
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<td>Engagement</td>
<td>Engagement</td>
<td>Lifestyle risk</td>
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<td></td>
<td>Hazard identification</td>
<td>Function</td>
<td>Return/value on investment</td>
<td>Access to healthy food &amp; physical activity</td>
<td>Satisfaction</td>
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<tr>
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<td>Short &amp; long-term disability</td>
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<td>Job hazards</td>
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</tbody>
</table>
Integrate Systems
Do Worker Safety and Health Goals align with Organizational Goals?

#squadgoals
Integrate relevant systems to advance worker well-being

• Bring together teams and contractors
  – All levels and departments: management, front line supervisors, union, workers, contractors
• Identify areas of overlap and opportunities for coordination
  – Shared goals, activities, budgets
• Prioritize organizational solutions
Pause and Reflect

In which of the five defining elements is your organization having the most success?

In which of the five defining elements is your organization having the most challenges?

- Leadership commitment
- Hazard-free work environment
- Worker engagement
- Confidentiality and privacy
- Integration
Simple Steps
Simple Steps to Get Started

Dedicate time at meetings
  Share experiences regularly
  Establish routine multi-way communication

Hold joint meetings
  Invite others: disability management, human resource benefits, workers compensation, etc.

Discuss plans for the future
  Develop shared activities and objectives
  Cross market
Simple Steps to Get Started

Sponsor brief lunch-and-learns

Share introductory materials

**Cross-train** on basic foundational principles

Share expertise to address shared goals

e.g., HRAs and risk assessment

Incorporate new information into training

Solutions from **multiple** perspectives

Share physical resources and space

Develop **informal** collaboration
Healthier Supervision

• Frequent, open communications to reduce uncertainty
  – Roles & responsibilities
  – Job security
  – Scheduling
• Prioritize flexibility
• Work load and organization of work
• Job-related decision making
  – Job design
• Open, fair performance evaluation & promotion
• Social interaction

Healthier Supervision

• Training
  – Working & communication styles, tools
• Recognition of strengths, functions
• Supportive of risk taking
• Appreciation
• Return-to-work
PROMISING PRACTICES
Dartmouth-Hitchcock

- Academic Medical Center 8,500 employees
- 10,000 family members
- 900 physicians
- Multiple sites
Dartmouth-Hitchcock

Recognizable Problem
✓ Unsustainable health care costs
✓ Silo-ed 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

Chang C. Health, safety, and well-being: Corporate strategy at Dartmouth-Hitchcock. TWH in Action! Newsletter August 2013; 2(3)
http://www.cdc.gov/niosh/TWH/newsletter/TWHnewsv2n3.html#2
Dartmouth-Hitchcock

- **Electronic reporting of injuries (EROI):**
  - Immediate notification to occupational medicine, safety, human resources, and work ability programs

- **Partners in Health, Environment, Wellness, and Safety (PHEWS) committee:**
  - Stakeholder representatives from the work unit, provide peer assistance

Chang C. Health, safety, and well-being: Corporate strategy at Dartmouth-Hitchcock. TWH in Action! Newsletter August 2013; 2(3)
http://www.cdc.gov/niosh/TWH/newsletter/TWHnews2n3.html#2
• Supervisor training
• Team and resiliency building
• Benefits design
• Environmental supports: access to healthier foods or changes to work schedules, and policy changes

• Align with organizational culture
• Identify as a organizational imperative
• Embed in strategic and operating plans
• **Demonstrate leadership**
  - Environmental, Health & Safety Value
  - Director of Global Wellness

• **Share information with workers and seeking feedback for evaluation**
  - Surveys at the corporate level and at individual sites
  - Real-time safety metrics: rates of near-misses and injuries, split by business segment, compared to the previous year’s metrics
  - Participation rates, aggregate health condition status, healthcare costs

• **Integrate systems**
  - Fatigue risk management group led by a cross-functional team
  - Recommendations, global guidelines on shift work and overtime
  - Permit process, including employee input, on deviations to the guidelines
  - Some businesses added rest breaks and facilities
Leadership Commitment
• “Keep Our Business Strong”
  • Employee engagement, access to “culture of health” programs, HRA, awareness of key health indicators
  • Employee safety, Contractor safety, fleet safety
  • Annual sustainability report: Personal risk factors, employee satisfaction, training hours, serious injury/illness rate, safety fines

Home and Community
• Guidance for homes (MSDs, strains & sprains, lifting)
• Road safety for general public

Impact
• 2002-2008: Reductions in obesity, high blood pressure, high cholesterol, tobacco use, physical inactivity, poor nutrition
• Healthcare costs grew by 1% (benchmark ave 4.8%)
• ROI $1.88 to $3.92
L.L.Bean

- 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.
BREAK
PART III:

• Interactive group work
• Report back to full group and discussion
Group Activity Instructions

• Break into groups
• Choose a scenario or real-life work setting
• Assign roles
• Create a plan
• Report back to larger group
Resources and Final Thoughts
TOTAL WORKER HEALTH

Let's Get Started

"I understand the value of advancing worker safety, health, and well-being. Now, how do I get started?"

This site serves as a guide for practitioners for creating or expanding organizational cultures of safety, health, and well-being. Resources on this site will provide information on how to create policies, programs, and practices which protect and promote worker safety, health, and well-being from the organizational and environmental level.

MAKING THE BUSINESS CASE
Information to make the case to invest in the safety, health, and well-being of workers.

SIMPLE STEPS YOU CAN TAKE TO GET STARTED
Examples of simple ways you can begin holistically approaching safety, health, and well-being.

PLANNING, ASSESSMENT, AND EVALUATION RESOURCES
This page provides planning, assessment, and evaluation resources to help your organization create and sustain a culture of total worker health.

PROMISING PRACTICES FOR TOTAL WORKER HEALTH
Examples of employers taking steps to effectively integrate workplace policies, programs, and practices that protect workers' safety and health and advance their overall well-being.

https://www.cdc.gov/niosh/twh/letsgetstarted.html
Table 1. Examples of Resources for Planning, Assessing, and Evaluating Total Worker Health Programs, Policies and Practices

<table>
<thead>
<tr>
<th>Planning</th>
<th>Assessment</th>
<th>Evaluation</th>
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</thead>
</table>
| **Indicators of Integration by the Harvard Center for Work, Health, & Well-being**<sup>1</sup>, Harvard Center for Work, Health, Wellbeing, 2015  
The scorecard can be used to assess the extent to which a company has integrated programs, policies and practices related to protecting and promoting worker safety, health, and well-being. The tool aims to identify areas of potential strength and improvement that a company may experience along the continuum to become more fully integrated.  
Results can be used to generate discussions on program planning | **See link for tool**<sup>2</sup>  
**See link for article that informed the development of indicators of integration**<sup>3</sup> | **Indicators can be used to track progress; over time.**  
**See related link article section: Integrated Evaluation and Surveillance** |
| **Using Total Worker Health<sup>®</sup> Concepts to Enhance Workplace Tobacco Prevention and Control**, NIOSH Workplace Solutions, 2015  
Worksite health promotion programs designed to improve worker health, such as those that help workers stop or reduce tobacco use, have traditionally focused on individual factors and not taken work-related exposures and hazards into account.  
May assist in the development of other TWH approaches to tackle specific workplace issues | | |
| **CDC Worksite Health ScoreCard**<sup>4</sup>, CDC, National Center for Chronic Disease Prevention and Health Promotion, 2014  
A tool to assist employers in identifying gaps in health, well-being and safety programs, and to prioritize high-impact strategies for worksite programs on a range of health topics such as occupational safety and health, organizational supports, stress management, depression, and physical activity. | | |

https://www.cdc.gov/niosh/twh/tools.html
Guidelines for Implementing Integrated Programs

https://www.cdc.gov/niosh/twh/guidelines.html
<table>
<thead>
<tr>
<th>Defining element of TWH</th>
<th>Where we are now/What we do well</th>
<th>Where we want to be/What must be improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate leadership commitment to worker safety and health at all levels of the organization</td>
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<td>Design work to eliminate or reduce safety and health hazards and promote worker well-being</td>
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<td>Integrate relevant systems to advance worker well-being</td>
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<tr>
<th>Defining element of TWH</th>
<th>Needs identified</th>
<th>Who should we include?</th>
<th>What obstacles might we encounter?</th>
<th>What resources outside the workplace could we pull in to help?</th>
<th>What steps must we take to make this happen?</th>
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Free continuing education credits

http://www.cdc.gov/niosh/twh/webinar.html
# NIOSH Total Worker Health® Affiliates and Centers of Excellence

## Centers of Excellence
- Center for Health, Work & Environment
- Center for the Promotion of Health in the New England Workplace
- Harvard T.H. Chan School of Public Health Center for Work, Health, and Well-being
- Healthier Workforce Center of the Midwest
- Oregon Healthy Workforce Center
- University of Illinois Chicago Center of Healthy Work

## Affiliates

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<tr>
<th>Affiliation</th>
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<tbody>
<tr>
<td>AgriSafe Network</td>
<td>National Institutes of Health (NIH)</td>
</tr>
<tr>
<td>American Association of Occupational Health Nurses (AAOHN)</td>
<td>National Safety Council (NSC)</td>
</tr>
<tr>
<td>American College of Occupational and Environmental Medicine (ACOEM)</td>
<td>National Security Agency</td>
</tr>
<tr>
<td>American College of Preventive Medicine (ACPM)</td>
<td>Nebraska Safety Council</td>
</tr>
<tr>
<td>American Industrial Hygiene Association (AIHA)</td>
<td>Northern Kentucky University</td>
</tr>
<tr>
<td>Association of Occupational Health Professionals in Healthcare (AOHP)</td>
<td>Ohio Bureau of Workers’ Compensation</td>
</tr>
<tr>
<td>Communications Workers of America (CWA)</td>
<td>SAIF Corporation</td>
</tr>
<tr>
<td>Dartmouth Hitchcock Medical Center</td>
<td>Society for Occupational Health Psychology (SOHP)</td>
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<tr>
<td>Eskenazi Health</td>
<td>St. Louis Area Business Health Coalition</td>
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<tr>
<td>HealthPartners Institute</td>
<td>University of Buffalo Industrial &amp; Systems Engineering</td>
</tr>
<tr>
<td>Industrial Minerals Association – North America</td>
<td>Interdisciplinary Center for Healthy Workplaces, U of CA -Berkeley</td>
</tr>
<tr>
<td>International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Fergers, and Helpers (IBB)</td>
<td>Labor Occupational Health Program, U of CA -Berkeley</td>
</tr>
<tr>
<td>ISSA—The Worldwide Cleaning Industry Association</td>
<td>U of CA – Irvine, Center for Occupational and Environmental Health</td>
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<tr>
<td>Kentucky Department for Public Health</td>
<td>University of Georgia</td>
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<tr>
<td>Kentucky Injury Prevention and Research Center</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>Laborers’ Health &amp; Safety Fund of North America</td>
<td>University of North Carolina, Chapel Hill</td>
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<tr>
<td>Mount Sinai Entities</td>
<td>Valley Health Alliance</td>
</tr>
<tr>
<td>National Aeronautics and Space Administration (NASA)</td>
<td>Western Kentucky University</td>
</tr>
</tbody>
</table>
Before Work

After Work

Before Work
Work gives you meaning and purpose, and life is empty without it.

--Stephen Hawking (1942-2018)
Stay Connected with Us!

Visit us on the Web: www.cdc.gov/niosh/twh

Email us: TWH@cdc.gov

Sign up for our quarterly e-newsletter www.cdc.gov/niosh/TWH/newsletter/

Tweet us: @NIOSH_TWH  Link with us: (Search “NIOSH Total Worker Health”)

THANK YOU!!