Maximizing the Value of Better Safety, Health and Well-being

Making the Case for the NIOSH Total Worker Health[™] Approach

2015 Occupational Health Symposium University of Iowa - April 16, 2015

TOTAL WORKER HEALTH[™]

L. Casey Chosewood, MD, MPH Director, Office for Total Worker Health™ National Institute for Occupational Safety and Health

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.



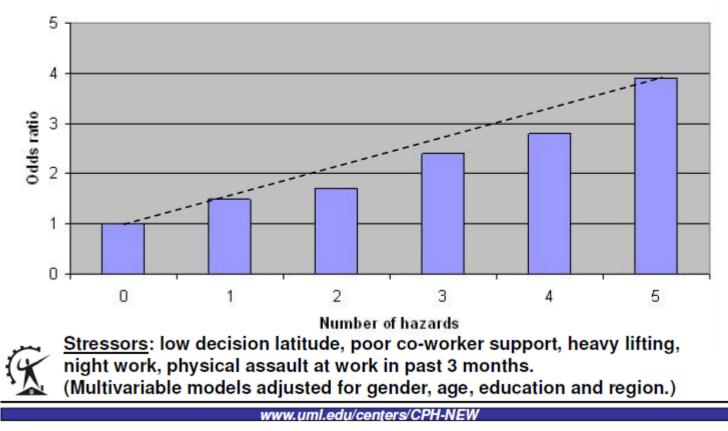
Obesity by Occupation

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

Sample Jobs		Obesity Rate for Group	
HIGHEST			
*9	Police officers, firefighters, security guards	40.7%	
1	Social workers, clergy, counselors	35.6	
	Home health aides, massage therapists	34.8	
$\mathbf{\Phi}_{\mathbf{a}}$	Architects, engineers	34.1	
	Bus drivers, truckers, crane operators, garbage collectors	32.8	
LOWEST			
	Janitors, maids, landscapers	23.5%	
<u>ت</u>	Cooks, bartenders, food servers	23.1	
	Physicians, dentists, EMTs, nurses	22.0	
10	Artists, actors, athletes, reporters	20.1	
JII Q	Economists, scientists, psychologists	14.2	Average U.S. worker: 27.7%
Note: Obesit	ty defined as body mass index of 30 (or above	The Wall Street Journal

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

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



Punnett L and the Center for the Promotion of Health in the New England Workplace. Recent Trends and Research in Worker Safety and Health. February 25, 2014 NIOSH Total Worker Health Webinar.







Work-Related Deaths, 2011 (Per 100,000 Workers*)

Fishermen (121.2)
Loggers (102.4)
Pilots (57.0)
Farmers And Ranchers (25.3)
Police Officers (18.6)
Construction Workers (15.7)
 National Average (3.5)
 Firefighters (2.5)
 Cashiers (1.6)
Office Admin (0.6)
Business And Finance Staff (0.5)

* Full-time equivalent workers.

Source: US Bureau Of Labor Statistics, 2011 (Credit: Jess Jiang and Lam Thuy Vo /NPR)

Burden of Occupational Disease, Injury and Death

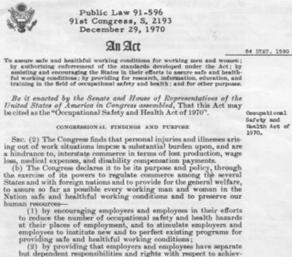
- In the United States in 1970, there were approximately 14,000 fatal work injuries per year
- In 2010, with a workforce twice as large, 4,547 workers died from fatal injuries
- Still, about 12 workers will die on the job today
- 3.7 million serious injuries
- \$128–155 billion in direct and indirect costs
- Unaccounted pain, suffering, and economic impacts

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 . . .

TOTAL WORKER HEALTH

INTEGRATING HEALTH PROTECTION AND HEALTH PROMOTION



to a dependent responsibilities and repairs where responsibilities and healthful working conditions: (3) by authorizing the Secretary of Labor to set mandatory occupational safety and health standards applicable to businesses affecting interstate commerce, and by creating an Occupational Safety and Health Review Commission for carrying out adjudi-

catory functions under the Act; (4) by building upon advances already made through employer and employee initiative for providing safe and healthful working conditions;

(5) by providing for research in the field of occupational safety and health, including the psychological factors involved, and by developing innovative methods, techniquee, and approaches for dealing with occupational safety and health problems;

(6) by exploring ways to discover latent diseases, establishing causal connections between diseases and work in environmental conditions, and conducting other research relating to health problems, in recognition of the fact that occupational health standards present problems often different from those involved in occupational safety;

(7) by providing medical criteria which will assure insofar as practicable that no employee will suffer diminished health, functional capacity, or life expectancy as a result of his work experience;

(8) by providing for training programs to increase the cumber and competence of personnel engaged in the field of occupational affety and health;





What is Total Worker Health™?

Total Worker Health is a strategy integrating occupational safety and health protection with interventions that protect, preserve and promote the comprehensive well-being of workers.



Individually-Focused Behavior Change Interventions Not Enough

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



Adapted from M. Marmot/Institute of Medicine Report

What Total Worker Health[™] Is <u>Not</u>

- When health promotion efforts take place in workplaces that are <u>not providing safe and healthful working conditions</u>— workplaces at which workers' health is not protected... this is not *Total Worker Health*.
- When worker health promotion efforts take place in workplaces in which <u>the very way that work is organized and</u> <u>structured is actually contributing to worker injuries and</u> <u>illnesses</u>, especially cardiovascular diseases, depression and anxiety...this is not *Total Worker Health*.
- When workplaces promote wellness programs of <u>unproven</u> <u>value for workers' well-being</u> and are completely disconnected from workforce protection, that's not *Total Worker Health*.

Adapted from Opening Keynote, John Howard, Director of NIOSH, October 2014. Bethesda, MD. Photo credit:

Issues Relevant to Total Worker Health[™]

Protect, Preserve and Promote Worker Well-being

Control of Hazards & Exposures

- Chemical, Physical, Biological
- Psychosocial Factors, Human Factors

Address the Organization of Work

- Work Intensification, Breaks/Hygiene
- Safety & Health Culture
- Overtime, Shift Work & Long Work Hours
- Flexible Work Arrangements
- Engagement
- •

Account for New Employment Patterns

- Contracting, Subcontracting, Dual Employer
- Precarious/Contingent/Part-time Employment

Note Changing Workforce Demographics

- Multigenerational , Aging Workforce
- Increasing Workforce Diversity
- Workers with Disabilities, Vulnerable Populations, Disparities
- Small Businesses

Address Compensation & Benefits/Legal and Social Issues

- Living/Adequate Wage, Wage Theft, Paid Leave
- Work, Life, Family Policies & Programs
- Zero Tolerance for Abuse of Power, Bullying, Violence, Harassment, Discrimination
- Eroding Workers' Compensation Benefits
- Cost Shifting of Compensation for Work-Related Injuries & Illnesses to SSDI and health insurance

Well-Being Supports

- Safe & Health-Promoting Culture with Leadership Support
- Access to Confidential Healthcare Resources
- Chronic Disease Prevention and Work-Life Integration Programs
- Resources to Support Social & Physical Well-Being in the Community
- Healthy Food Access, Safe/Clean
 Environment

Where's the <u>Value</u> in the Total Worker Health Approach?

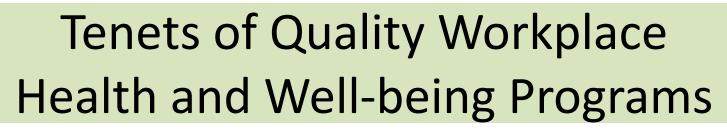
- Whose value?
- ROI vs. VOI
- How are health protection and program engagement connected?
- Does integration of programs matter?
- Where is greatest value obtained?
- Effectiveness vs. Fairness

When Assessing VOI, Ask... Value for Whom?



Protecting Workers Is the Foundational Cornerstone of Total Worker Health[™]

Photo Credit: Jawad Qasrawi/Hazards Magazine, 22 July 2014



- Do workers have a voice in the program?
- Are incentives used wisely and positively?
- Is the focus long-term, emphasizing culturebuilding?
- Is participation in the program voluntary?
- Is privacy protected?
- Are related programs (safety, benefits, disability mgmt, etc) integrated?



Return on vs. Value of Investment

• ROI – Cost Benefit Analysis

- Savings/costs foregone per dollar invested
- \$ saved : \$ spent

• VOI – Cost Effectiveness Analysis

- Cost per unit of outcome: \$ spent : [health/safety or other measure}
- Emphasizes entire range of outcomes that might add value
- Emphasizes entire range of costs that might be incurred
- Allows individuals to decide what they value, customize to needs/values
- Allows decision makers to decide what calculations they think are credible or not credible
- Intuitively appealing and understandable
- Allows for apples-to-apples comparison among various intervention options
- Flexible enough to accommodate all varieties and combinations of population health management programs.

From: The Measurement Issue/ The Art of Health Promotion; March/April 2014. DOI: 10.4278/ajhp.28.4.tahp111

Benefits of Integration: Increased Program Participation and Effectiveness



Integrated interventions

Health promotion only

Smoking quit rates:

11.8%

5.9%

Sorensen G and Barbeau E. Integrating Occupational Health and Safety and Worksite Health Promotion: State of the Science. The NIOSH Total Worker Health[™] Program: Seminal Research Papers 2012. DHHS (NIOSH) 2012-146.

Benefits of Integration: Reduced Sickness Absence & Improved Health



Reduced:

- Ergonomic risks
- Cardiovascular risks
- Job stressors

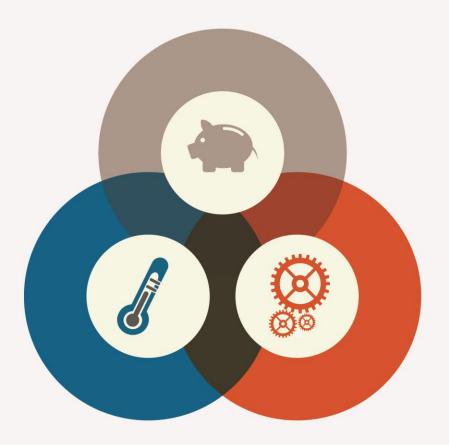
Sorensen G and Barbeau E. Integrating Occupational Health and Safety and Worksite Health Promotion: State of the Science. The NIOSH Total Worker Health[™] Program: Seminal Research Papers 2012. DHHS (NIOSH) 2012-146.

Integrated Programs May...



- Address synergistic risks
- Enhance a culture of trust and increase employees' receptivity to health behavior change
- Improve morale, engagement, employee retention

NIOSH. 2012. Research Compendium: The NIOSH Total Worker Health™ Program: Seminal Research Papers. DHHS (NIOSH) Publication No. 2012-146.

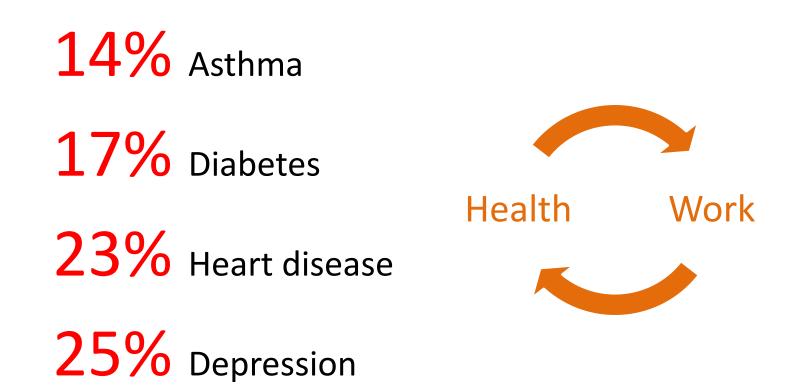


The health of workers is tied to the health and productivity of organizations.⁴

4. Hymel P, Loeppke R, Baase C, Burton W, Hartenbaum N, Hudson T, McLelann R, Mueller K, Roberts M, Yarborough C, Konicki D, Larson P [2011].







Kubo J, Goldstein BA, Cantley, LF., et. al. Contribution of health status and prevalent chronic disease to individual risk for workplace injury in the manufacturing environment. Occup Environ Med 2013;0:1–8.



"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. Konicki, MHS, Charles M. Yarborough, MD, Kent W. Peterson, MD, Fikry Isaac, MD, Ronald R. Loeppke, MD, MPH, Barry S. Eisenberg, MA, and Marianne Dreger, MA · Recently, an article by Loeppke and colleagues,⁴ reported that Objective: To test the hypothesis that comprehensive efforts to reduce a workfor every dollar of medical and pharmaceutical costs spent, an force's health and safety risks can be associated with a company's stock maremployer lost an additional \$2.30 of health-related productivity ket performance. Methods: Stock market performance of Corporate Health costs. Health-related presenteeism (health risks and medical con-Achievement Award winners was tracked under four different scenarios using ditions impacting work performance) was shown to have a larger simulation and past market performance. Results: A portfolio of companies impact on lost productivity than absenteeism, with executives and recognized as award winning for their approach to the health and safety of managers suffering higher losses. Comorbidities demonstrated the their workforce outperformed the market. Evidence seems to support that largest effects on productivity loss.4 building cultures of health and safety provides a competitive advantage in the marketplace. This research may have also identified an association between These facts led to a hypothesis: Companies that create an encompanies that focus on health and safety and companies that manage other vironment for their employees and dependents that reinforces both aspects of their business equally well. Conclusions: Companies that build a conscious and unconscious safer and healthier lifestyle choices as culture of health by focusing on the well-being and safety of their workforce well as provides more effective accessing of appropriate health care yield greater value for their investors. (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 growing body of evidence supports the concept that focusing on A growing body of evidence supported in the particular support of the health and safety of a workforce is good business. Engaging market performance of companies with proven health, safety, and environmental programs under four different scenarios. To find such in a comprehensive effort to promote wellness, reduce the health companies, we turned to the recipients of the American College risks of a workforce, and mitigate the complications of chronic illness of Occupational Medicine's (ACOEM's) Corporate Health Achieve

GET ENGAGED IN THE CONVERSATION AND TAKE ACTION



NIOSH TOTAL WORKER HEALTH[™] Webinar Series

2014 Series Summary

February 25

Making the Case for Total Worker Health: An Overview of **Opportunities and Approaches**



Laura Punnett. **ScD**



Ron Goetzel, PhD

Intervening for Work Stress: Work-Life Stress and Total Worker Health

August 19

November 14 **Integrated Safety and Health for**

Small Businesses

Dan Ganster. PhD



Leslie Hammer, PhD

582 registrants **319** attendees for live webinar **711** views of recording⁺



James Merchant. MD, DrPH



Lee Newman, MD, MA

598 registrants 234 attendees for live webinar 279 views of recording⁺

543 registrants 357 attendees for live webinar **224** views of recording*

*Current as of 2/10/2015 ⁺Current as of 3/12/2015

For more information, please visit http://www.cdc.gov/niosh/twh/webinar.html



NIOSH TOTAL WORKER HEALTH[™] Webinar Series

2015 Series, to date:

March 12

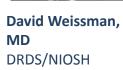
Preserving Lung Health: At Work and Beyond





Cara Halldin, PhD DRDS/NIOSH

603 registrants





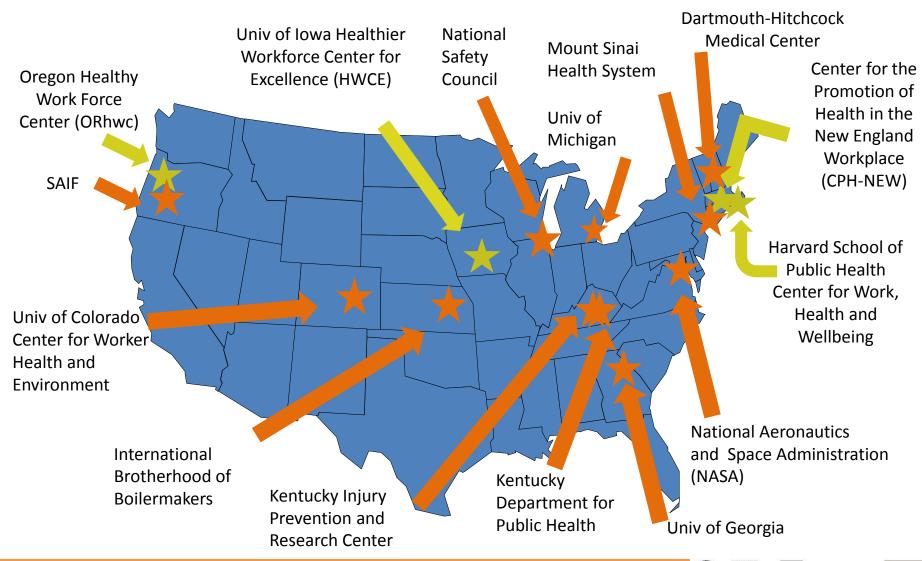
Cassandra Okechukwu, ScD, MSN Harvard School of Public Health

Coming in June [Topic: Sedentary Work]



For more information, please visit http://www.cdc.gov/niosh/twh/webinar.html

Centers of Excellence & TWH™ Affiliates



Not Yet Shown on Map: Boilermakers International, ISSA, Nebraska Safety Council, UNC

Reserved Reserve

NIH Pathways-to-Prevention

- NHLBI and TWH partnering
- Examine the TWH approach and identify research gaps/opportunities
- Workshop in November 2015 to examine the current evidence base
- What are opportunities for future investment in research in TWH?

Gallup Well-being Research

- Projects underway in 3 NIOSH Divisions DSHEFS, DART, and NIOSH Office of the Director
- 12 projects underway in NIOSH

NIOSH Well-being Project with RAND

- Year-long project to "operationalize" the concept of well-being for Total Worker Health
- RAND will make recommendations on well-being domains and drivers, to include in a final definition of well-being from a worker/workplace perspective



NIOSH National Center for Productive Aging and Work (NCPAW)

- First Announced January 2015
- First named Total Worker Health[™] Specialty Center
- Co-Directors: Dr. Juliann Scholl and Dr. Jim Grosch
- Enable productive aging for working Americans of all ages through research, programs and policies in collaboration with partners
- External Launch Summer 2015

http://www.cdc.gov/niosh/topics/healthyagingatwork

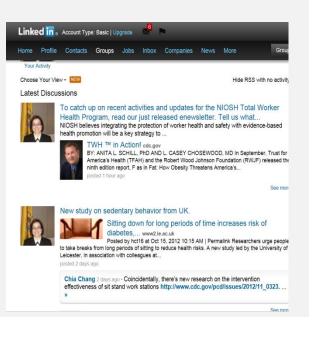


Ways to Connect with Total Worker Health[™] Email <u>TWH@cdc.gov</u>

Twitter (<u>@NIOSH_TWH</u>)



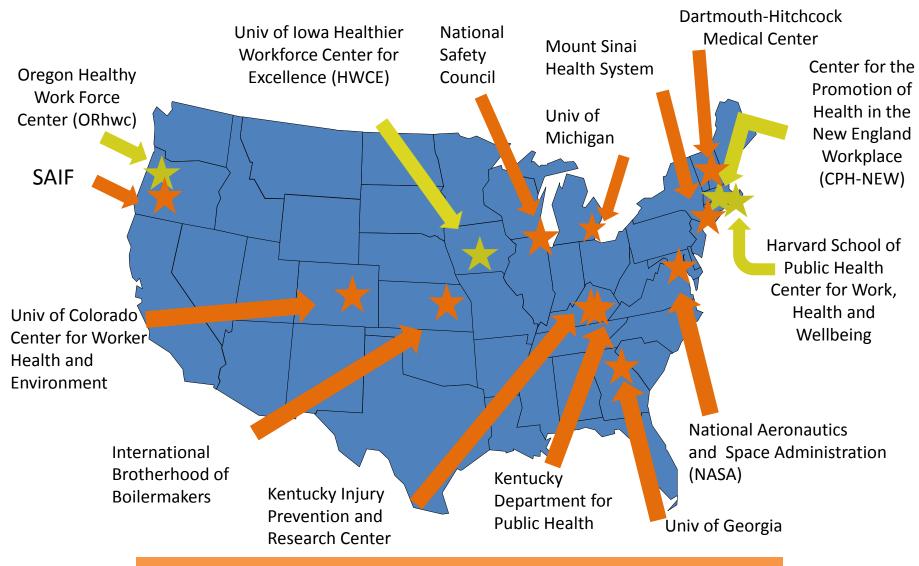
LinkedIn (NIOSH Total Worker Health)



TWH in Action! e-Newsletter

	r Disease Control and Prevention	NICSH Stall CDC Topics Choose a table above		
A-Z Index for All CDC Topics	ill maar i rosanssill sadhaas			
The National Inst	titute for Occupational Safety and Heal	th (NIOSH)		
NIGSH Publications & Products	NIOSH Publications & Products - Total Worker Health In Action			
NICSH-Issued Publications Publication Types	Recommend Tweet O Share			
Order Publications				
Scorch NIOSHTIC-2 Research Delebose	TWH" in Action!	WH TOTAL WORKER HEALTH		
cNews				
Collaborating Contro Connection Newsletter	In this issue:			
Total Worker Health in Actioni	Menagora' Buzz			
Vol. 3 No. 1 Promising ProsDeck for TOTAL WORKER HEALTH"				
Vol. 2 No. 4	Healthier Feda			
Vol. 2 No. 3				
Vol. 2 No. 2	Updates from NIOSH Centers of Excellence to Promote a Healthier Workforce			
Vol. 2 No. 1 Nova from our Parinera				
Vel. 1 No. 3	New InKlatives and Resources			
Vol. 1 No. Z	Upcoming Conferences, Webiners and Trainings in Support of NIOSH TOTAL WORKER. HEALTHIN			
Vol. 1 No. 1				
Science Blog				
Documents for Public Review	Managers' Buzz BY: ANITA L SCHILL, PhD, MPH, MA AND L CASEY CHOSEWOOD, MD			
Peer Review Agenda The New Year is a time for both reflection on the past and looking forward to the future. The past year				
Regulatory Agende was filled with many highlights including the Third Annual NOSH National Expert Colleguium on TOTA WORKER HEALTH™ (TWH™), the publication of the Proceedings of the 2012 Total Worker Health				
Press Releases/Updates Symposium coordinated by the University of Iowa Healthier Workforce Center for Excellence, and Press Releases/Updates				
Detabases This coming year holds much promise for an unsurgessed level of activity related to Total Worker				
Software	Health. Perhaps the most exciting event on the horizon is the first-ever International Symposium to			
Video	Advance TOTAL WORKER HEALTH to be convened on October 6-8, 2014 at the Natcher Conference			
Video Center, National Institutes of Health in Setteade, MD. This 3-day event will showcase the latest TWH- related research, programs, practices, and poley. The call for abstracts has already been published, and is evalable at <u>http://www.cagiesen.org/conferences/tete/weter/health/call-for-abstracts if</u>).				
NODE** Total (miles meak) instance server all kine locatile in 2024. In reference 12 and non-2 access that a structure of the structure thinks are structure to the structure of the structure				
	Public workings in Washington, D that integrate considered leads) that integrate considered leads) responses and based on the program, executing access, based on the second second second second program, executing access, based on the second second second second the second second second second second the second s	dentifying the value of integrating increases full integration, and innovative immary hephlophtong the presentations and ter informations contained the check-full of feature articles and soft want to make. In response to your set can be used for measuring the jute case for integrated health protection r. Tapas Ray from the NUGSH technology of quality of the measures can be used to		

Centers of Excellence & TWH™ Affiliates



Not Yet Shown on Map: Boilermakers International, ISSA, Nebraska Safety Council



http://www.cdc.gov/niosh/twh/affiliate.html

Why total worker health really matters...

