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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

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

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

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.)

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.

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.

Source: NIOSH Prevention through Design, 2011
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 . . .
What is Total Worker Health™?

Total Worker Health™ integrates occupational safety and health protection with workplace policies, programs and practices that promote health and prevent disease to advance worker safety, health and well-being.
Do My Job Create Well-being?

- More than just a lack of negative outcomes
- Multi-dimensional, complex
- Measurable subjectively, objectively
- Relates to culture, engagement, meaningful work
- Dividend of high-quality jobs/tax of low-quality ones
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 Not

• When health promotion efforts take place in workplaces that are not providing safe and healthful working conditions—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 the very way that work is organized and structured is actually contributing to worker injuries and illnesses, especially cardiovascular diseases, depression and anxiety...this is not Total Worker Health.

• When workplaces promote wellness programs of unproven value for workers’ well-being and are completely disconnected from workforce protection, that’s not Total Worker Health.

Adapted from Opening Keynote, Dr. John Howard, Director of NIOSH, October 2014. Bethesda, MD.
Tenets of Quality Workplace Health and Well-being Programs

• Do workers have a voice in the program?
• Are incentives used wisely and positively?
• Is the focus long-term, emphasizing culture-building?
• Is participation in the program voluntary?
• Is privacy protected?
• Are related programs (safety, benefits, disability mgmt, etc) integrated?
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
- Wage and Health, Wage Theft, Paid Leave
- Work, Life, Family Policies & Programs
- Prevention of 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 Value in the Total Worker Health™ Approach?

- Whose value?
- Return on Investment (ROI) or Value of Investment (VOI)
- How are health protection and program engagement connected?
- Does integration of programs matter?
- Effectiveness vs. Fairness
Protecting Workers Is the Foundational Cornerstone of Total Worker Health™

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

Smoking quit rates:

Integrated interventions: 11.8%

Health promotion only: 5.9%

Benefits of Integration: Reduced Sickness Absence & Improved Health

Reduced:
• Ergonomic risks
• Cardiovascular risks
• Job stressors

Integrated Programs May...

- Address synergistic work/non-work risks
- Enhance a culture of trust and increase employees’ receptivity to health messages and change
- Improve morale, engagement, and retention

The health of workers is tied to the health and productivity of organizations.\textsuperscript{4}

Increased Risk of Workplace Injury

14% Asthma
17% Diabetes
23% Heart disease
25% Depression

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

Fabius R, et al., JOEM, Vol 55, No 9, September 2013
GET ENGAGED IN THE CONVERSATION AND TAKE ACTION
2014 Series Summary

February 25
Making the Case for Total Worker Health: An Overview of Opportunities and Approaches
Laura Punnett, ScD
Ron Goetzel, PhD

March 25
Integration of Safety and Health for Small Businesses
James Merchant, MD, DrPH
Lee Newman, MD, MA

August 19
Intervening for Work Stress: Work-Life Stress and Total Worker Health
Dan Ganster, PhD
Leslie Hammer, PhD

November 14
Integrated Safety and Health for Small Businesses

543 registrants
357 attendees for live webinar
224 views of recording*  
582 registrants
319 attendees for live webinar
711 views of recording*  
598 registrants
234 attendees for live webinar
279 views of recording+

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

*Current as of 2/10/2015
+Current as of 3/12/2015
2015 Series, to date:

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Cara Halldin, PhD
DRDS/NIOSH

David Weissman, MD
DRDS/NIOSH

Cassandra Okechukwu, ScD, MSN
Harvard School of Public Health

603 registrants

Coming this summer

[Topic: Sedentary Work]

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

Twitter (@NIOSH_TWH)

LinkedIn (NIOSH Total Worker Health)

TWH in Action! e-Newsletter
Why *total worker health* really matters...