


A NIOSH Center for Excellence to Promote a Healthier Workforce


TWH in the Context of Occupational Health Psychology: Integration of Health Protection & Health Promotion

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NIOSH “Total Worker Health™”

- ☒ Implement and compare multiple strategies or models for integrating two core public health areas: occupational health/safety (OHS) and health promotion (HP)
- ☒ Evaluate opportunities for, and obstacles to, these integration efforts
- ☒ Evaluate whether this strategy provides enhanced health benefits and/or greater cost-effectiveness

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What does “integration” mean?

- ☒ No consensus (yet) on a single definition
- ☒ Levels: individual, institutional
- ☒ Equal weight to preventing OSH hazards and to supporting healthy behaviors
- ☒ Concept of the “salutogenic” organization [Henning & Reeves, 2013]

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Selected Indicators & Metrics

[Adapted from: Sorensen et al., 2013]

- ☒ Comprehensive program content
- ☒ Coordination between OSH and WHP
 - Policies about work env't/organization and education & programs for individual workers
- ☒ Supportive policies and practices
 - Accountability for coordination, collaboration
 - Joint worker-management committees
 - Workers actively engaged in planning and implementation



www.nlm.nih.gov/ncjournals/PDIL/NCJ

Obstacles to integration?

- ☒ Disciplinary knowledge, emphases of practitioners (& researchers)
- ☒ Organizational responsibilities, internal incentives [Cherniack et al. 2010]
- ☒ Different external requirements & incentives
- ☒ Different intermediate measures of success
 - WHP: primarily individual behaviors
 - OSH: primarily workplace exposures to hazards



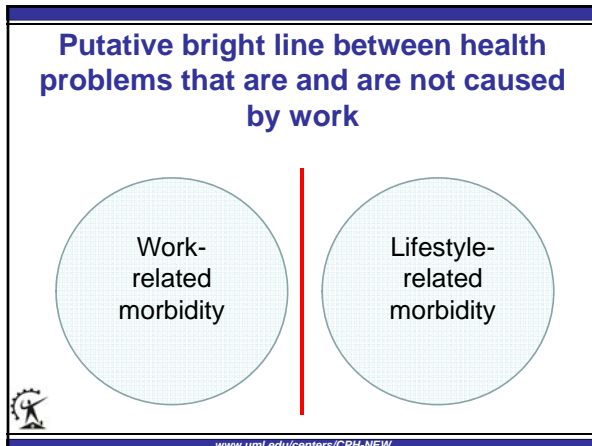
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Why Integration?

- ☒ Traditional HP targets: Individuals' exercise, diet, smoking, obesity, etc.
 - These affect risk of cardiovascular disease, diabetes, mental health problems, perhaps musculoskeletal disorders, other chronic disease
- ☒ Traditional OHS ("health protection") targets: Workplace hazards that cause injury or illness
 - Broader range of possible health outcomes; many are very specific to exposures (sector)



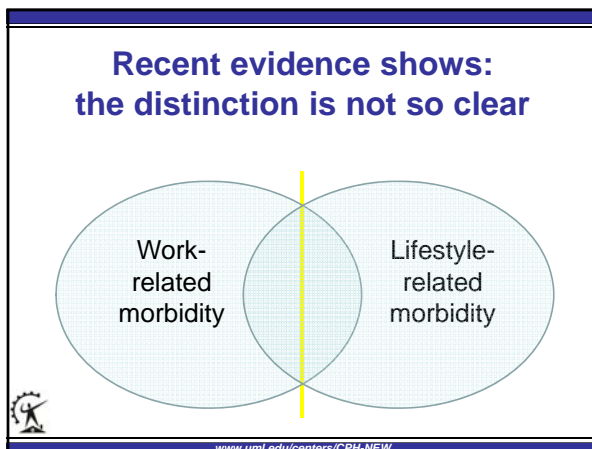
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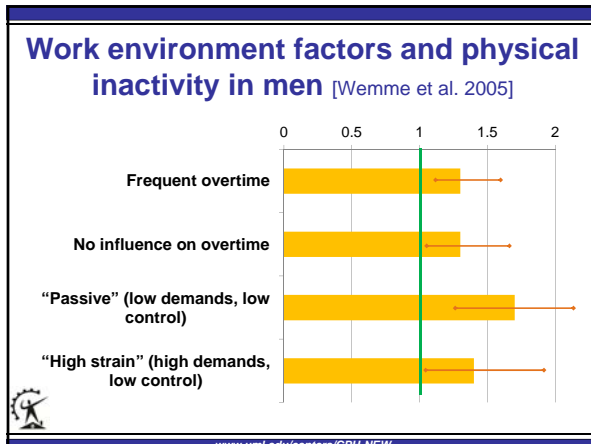


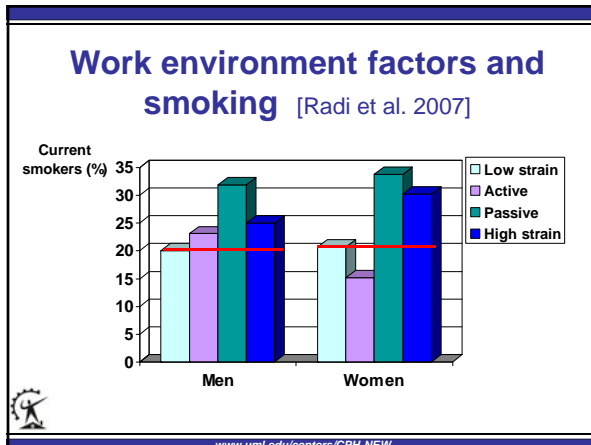
Why Integration? (2)

☞ Health behaviors (“personal” or “lifestyle” risk factors) **are also affected by decision latitude & other psychosocial features in the work environment**

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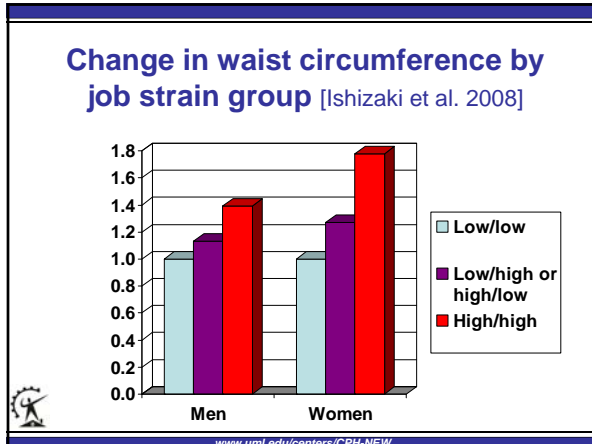




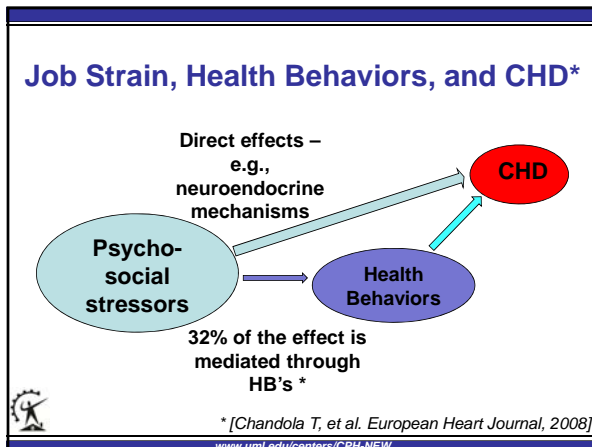


Work environment factors and smoking [Albertsen et al. 2006]

- Ⓢ Review of 22 prospective studies, evaluated on methodologic features
- Ⓢ High job demands:
 - + cigs/day; + cessation; + relapse
- Ⓢ Resources at work (including job control):
 - cigs/day; + cessation; - relapse
- Ⓢ Social support:
 - cigs/day; + cessation; - relapse







Obesity/overweight and the role of working conditions [Champagne et al.]

- ☒ Physically demanding work, too fatigued to exercise or prepare healthy meals
- ☒ Meal breaks unpredictable and/or too short (eat fast or get fired)
- ☒ Harassment by supervisor or co-worker: depression
- ☒ Over-eating due to stress
- ☒ Back pain related to job demands – interfered with exercise



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Workload and Schedules

- ☒ **Physically demanding job:**
 - “I don’t have the desire to do exercise after standing for 15-16 hours. I just want to eat and sleep. The next day is the same thing all over again.”
 - “You come home and you are so tired that you either don’t want to eat, or you want to eat a lot.”
- ☒ **Meal breaks:**
 - “At 10:00 a.m., they give me a 15-minute break. I don’t have time to eat healthy food, even if I bring homemade food.”



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Psychosocial Stressors at Work

- ☒ **High demands**
 - “The work that three people used to do is given to one person. That creates more stress and eating more...”
- ☒ **Low control**
 - “Working in factories, you have to eat fast or you get fired.”
- ☒ **Low social support**
 - “A lot of harassment...it was really stressful so the depression really set in.”



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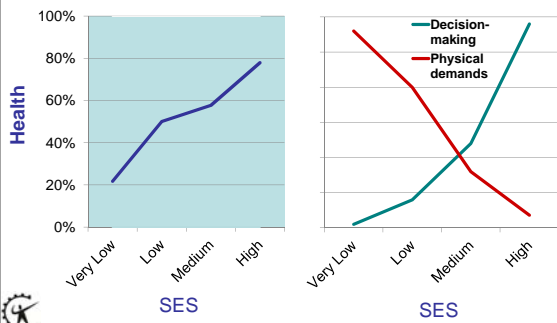
Why Integration? (3)

- ☒ Socioeconomic disparities in health
 - Low-status, low-wage workers have higher exposures at work AND more adverse “personal” risk factors



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Socioeconomic health disparities



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Implications for health disparities

- ☒ Workplace health promotion programs often have uneven scope
 - Lower participation and effectiveness among lower-SES employees
- ☒ Are the factors that affect low-SES employees fully taken into account?
 - Few decision-making opportunities, physically strenuous jobs, etc.



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Stressful working conditions follow from design decisions in the workplace and therefore are preventable




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Work Organization

“... the combination of the way in which work processes are designed and arranged, as well as the broader organizational practices that influence job design” (*)

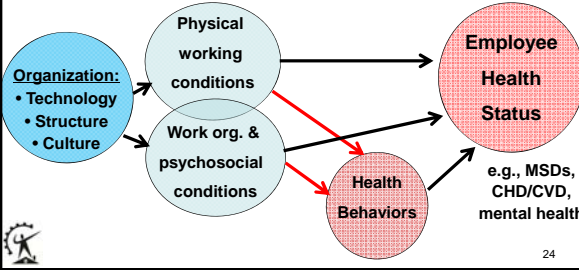
- determines:
 - physical loading patterns
 - “psychosocial” stressors: job demands, decision latitude, social support, job insecurity

[* NIOSH, *The Changing Organization of Work and the Safety and Health of Working People*, 2002]



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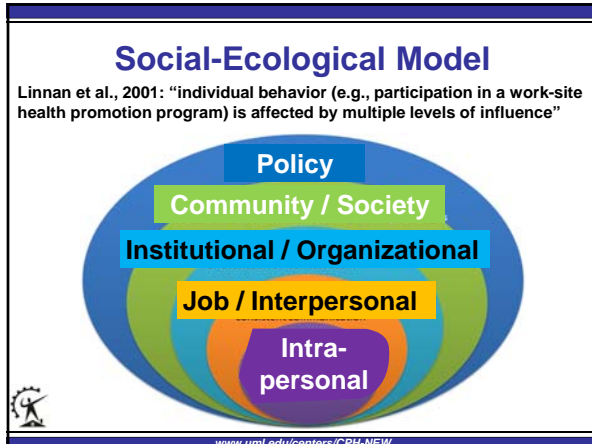
Working conditions link to health outcomes directly, and through health behaviors



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graph LR; Org[Organization: Technology, Structure, Culture] --> Phys[Physical working conditions]; Org --> Psych[Work org. & psychosocial conditions]; Phys --> HealthBeh[Health Behaviors]; Phys --> HealthStatus[Employee Health Status]; Psych --> HealthBeh; Psych --> HealthStatus; HealthBeh --> HealthStatus; HealthStatus --- Examples[e.g., MSDs, CHD/CVD, mental health];
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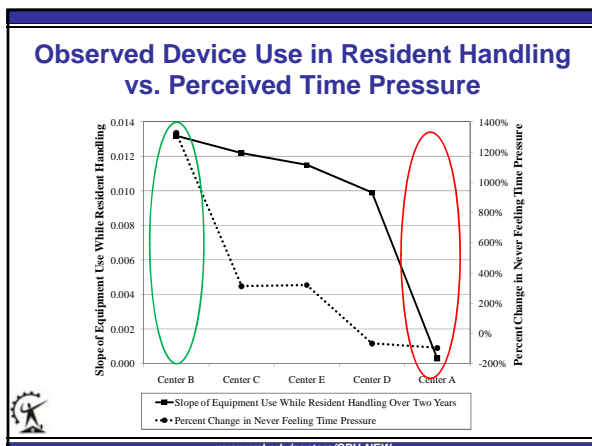
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OSH needs to address workplace organization

- ☐ Identify potential obstacles to health protection measures, and how those can be addressed
- ☐ Increase employee decision-making opportunities ("job control")
- ☐ Empower participation and creativity in problem-solving ("health self-efficacy")
- ☐ Enhance interpersonal relationships at work for successful teamwork, communication, etc.

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**Similarly, WHP needs to address
workplace organization**

- ☒ Increase employee autonomy and decision-making (“job control,” health self-efficacy)
- ☒ Encourage participation and creativity in problem-solving
- ☒ Engage employees to structure healthier work schedules
- ☒ Enhance interpersonal relationships at work
- ☒ Promote consistent and constructive feedback, teamwork, fair recognition, and rewards



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**What is Health Promotion?
Fostering positive decision-making
about health**

- ☒ Traditional focus on the individual’s behavior
 - Stop smoking, healthier diet, cope with stress
- ☒ “Social health promotion” - activities at the community or societal level [WHO]
 - Environmental conditions that foster healthy behaviors
 - Positive human relations at work that foster decision-making and self-efficacy

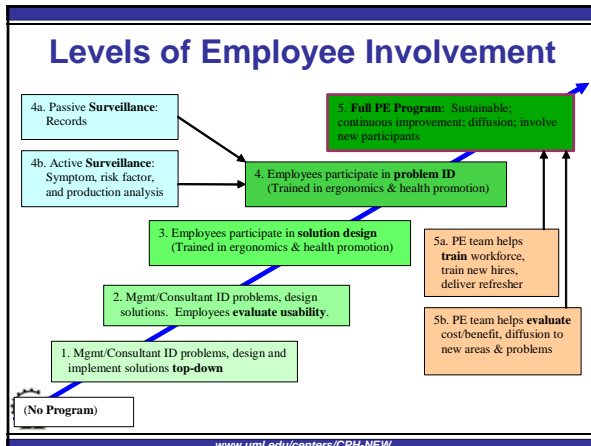


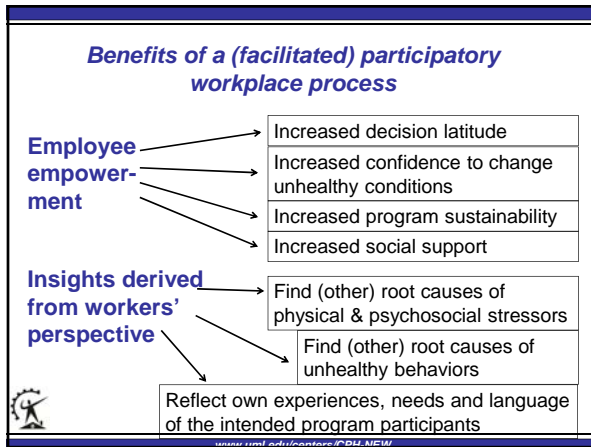
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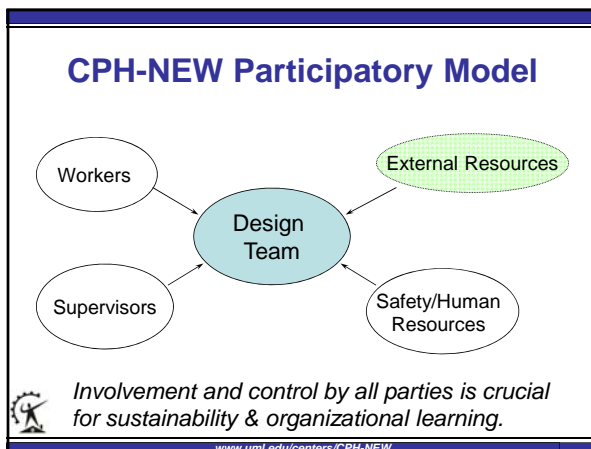
**Framing HP in terms of
healthy decision-making implies that
a program’s *process* is
as important as its *content*.**



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CPH-NEW Implementation Process

- ☒ greatly informed by participatory ergonomics
- ☒ Evaluation of workplace “readiness for change”
- ☒ Multi-stage needs assessment
 - Manager interviews, employee surveys and focus groups
- ☒ Design teams: workers, supervisors




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**CPH-NEW Research-to-Practice Toolkit:
Participatory intervention methods**

Seeks to address 3 needs:

- More effective integration of OSH with WHP
- Employee participation in decision-making; program ownership
- Enhanced program sustainability



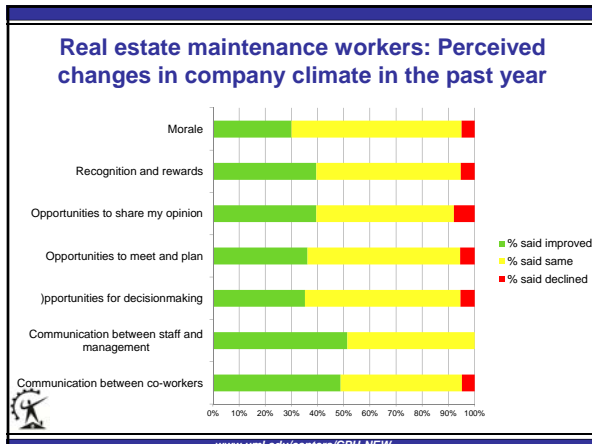
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“Research to Practice” (R2P) Toolkit

- ☒ Developed, field tested, and refined for use by practitioners
- ☒ Field tests at four workplaces:
 - Small & large; Public & private sector
 - Self-selected / recruited from participants in “Working on Wellness,” Mass. Dept. of Public Health
- ☒ New trials underway (Healthy Workplace Facilitator training webinars)



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Health Improvement through Employee Control (HITEC)

Compare 2 health promotion/workplace intervention programs, differing in process:

- ☒ Best practices, “top-down” (control site)
- ☒ Experimental program featuring employee control, through participatory design teams


Two sites comparable in size, staffing, security level, physical plant, ‘readiness to change.’
Notably higher employee buy-in & participation.

CPH-NEW R2P Toolkit promotes Total Worker Health™

- **Integrates** health promotion initiatives with attention to the work environment.
- **Engages** employees in setting priorities and developing solutions
- Improves organizational **communication & collaboration** about H&S.
- Workers learn how to develop a **contextual business case** for H&S interventions.
- Establishes a **sustainable** process for continuous health/safety improvement.

Challenges of evaluating “integration”

- ☒ Process evaluation:
 - [Metrics proposed by Sorensen et al.]
 - Were OHS and WHP topics both addressed?
 - with equal attention and emphasis?
- ☒ Effectiveness evaluation:
 - Did work-attributed health outcomes improve?
 - Did non-work-attributed outcomes improve?
- ☒ Return on Investment (ROI):
 - Long-term chronic disease prevention is difficult to monetize [Cherniack 2013]




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Center for the Promotion of Health in the New England Workplace (CPH-NEW)

Our approach to integration addresses:

- ☒ The (under-appreciated) relationship of individuals’ health behaviors to their working conditions
- ☒ Attention to how a program is carried out, not only what health needs it addresses
- ☒ How to use existing knowledge/skills to engage employees in participatory problem-solving



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Contacts and Acknowledgements

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