Scientific Basis for Integrated Workplace Programs

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Maine Worksite Wellness Initiative

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Work-based Strategies to Improve Health

Work-based Health Protection and Promotion Strategies

Supporting healthier behaviors through workplace environments and services offered at work
- Health screening & services
- Promoting healthy behaviors
- Creating a health-promoting environment

Preventing work-related illness and injury
- Workplace safety measures
- Control of workplace hazards
- Improved ergonomics
- Health and safety training

Reducing work-related stress
- Decreasing job strain
- Fostering social support among workers
- Stress management
- Supporting work-family balance (e.g., through flexible schedules)

Expanding work-related resources and opportunities
- Medical care benefits
- Paid sick and personal leave
- Child and elder care services
- Job training & education
- Adequate wages and salaries

Egerter et al., Commissionhealth.org, RWJH, 2008.
Why integrate OSH and WHP?

1. High risk workers face dual risks.
2. Additive and synergistic relationships to disease risk
3. Program impact on participation and effectiveness
4. Broader benefits for work organization
Case Example 1. Integrating health promotion and occupational health and safety at the worksite level:  

WellWorks-2 Study
The integration of health protection with health promotion will enhance the intervention impact on behavior change over and above health promotion alone.
WellWorks-2: Study hypothesis

Baseline Assessments in 15 worksites (n=9,019)

Randomization

Health Promotion

Health Promotion plus Health Protection

Final Assessments
## Comparison of worksite intervention models

<table>
<thead>
<tr>
<th>Intervention target</th>
<th>Traditional health promotion programs</th>
<th>WellWorks integrated model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Individual behaviors</td>
<td>Individual behaviors and the work environment</td>
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</table>

<table>
<thead>
<tr>
<th>Assumptions about responsibility for worker health</th>
<th>Traditional health promotion programs</th>
<th>WellWorks integrated model</th>
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<tbody>
<tr>
<td>Individual worker</td>
<td>Individual worker</td>
<td>Shared between worker and management</td>
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<table>
<thead>
<tr>
<th>Audience</th>
<th>Traditional health promotion programs</th>
<th>WellWorks integrated model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td></td>
<td>Workers, union, management</td>
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<table>
<thead>
<tr>
<th>Program planning</th>
<th>Traditional health promotion programs</th>
<th>WellWorks integrated model</th>
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<tbody>
<tr>
<td>Outside expert</td>
<td></td>
<td>Collaboration with worksite committees</td>
</tr>
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</table>
Adjusted six-month quit rates at final by intervention and job type
(cohort of smokers at baseline: n=880)

Sorensen et al, Cancer Causes and Control, 2002
## WellWorks-2 Participation Results

<table>
<thead>
<tr>
<th>Participation</th>
<th>HP Only</th>
<th>Integrated OSH/HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation in worksite-wide activities</td>
<td>14%</td>
<td>21%</td>
</tr>
<tr>
<td>Mean worker exposure to intervention</td>
<td>15 minutes</td>
<td>33 minutes</td>
</tr>
<tr>
<td>Number of management contacts</td>
<td>9</td>
<td>25</td>
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</tbody>
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Implications for impact

Expected implications for reducing the burden of cancer:

- 700,000 blue-collar workers in Massachusetts with 80% participation → 200,000 smokers
- 2,880 lung cancer cases avoided

Colditz, Cancer Causes and Control, 2003
Case Example 2. Tailoring to the occupational setting:

Tools for Health
Tools For Health

- Union collaboration
- Formative research informed intervention design for construction laborers
- Individual workers randomized to intervention condition
- Tailored telephone-delivered intervention
- Messages link tobacco use, occupational hazards and diet
Tom,
what you’re looking at is a one-of-a-kind magazine.

This magazine doesn’t just talk about health in general or about all Laborers—it has information about you and your own health. It’s based on the answers you gave when you took the Tools for Health survey over the phone, and it’s got lots of helpful tips. About how to live healthy. About how to have more strength and energy to do your job. And more.

This magazine also introduces you to your Tools for Health phone counselor. She has special training in talking with Laborers about their health. As part of Tools for Health, you’ll have 6 one-on-one phone calls with her, where you can talk about making health changes and setting goals. You’ll also get special health materials mailed to you—materials created just for Laborers.

Start by checking out this magazine. You’ll see what General President O’Sullivan has to say about Tools for Health, be introduced to your phone counselor, and much more.
Tools for Health: Final results

Smoking cessation rates (p=0.03)

<table>
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<tr>
<th>% Baseline Smokers Quitting</th>
<th>Intervention</th>
<th>Control</th>
</tr>
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<tbody>
<tr>
<td>19%</td>
<td>19%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Sorensen et al., Cancer Causes Control, 2007.
Tools for Health: Final results

Fruit and vegetable consumption (servings/day; p=0.0001)

Change in servings, baseline to final

Intervention 1.5 servings   Control 0 servings

Sorensen et al., Cancer Causes Control, 2007.
Conclusions

• Programs integrating OSH and WHP hold promise for:
  – Increasing impact on worker health behaviors, especially for blue-collar workers
  – Increasing workers’ participation in programs
  – Improving employers’ engagement
  – Possibly reducing potential exposures to hazards
Recommendations for best practice programs

• Institute of Medicine
  – *Integrating employee health: A model program for NASA*, 2005

• NIOSH WorkLife Initiative
  – Essential Elements of Worksite Programs: http://www.cdc.gov/niosh/worklife/
NIOSH WorkLife Initiative

• Centers of Excellence:
  – Iowa
  – U of Mass/Lowell
  – Harvard School of Public Health

• Workshops and seminars
Characteristics of best practice programs

- Organizational culture and leadership
- Program design and planning
- Implementing across multiple levels
- Program resources
- Program evaluation
- Adaptation to the work setting and characteristics of the job
Future Research Directions

- Firm evidence for intervention efficacy:
  - Further explore mechanisms and processes of change across multiple levels of influence
  - Identify linkages across environmental and education interventions to maximize change

- On-going need to address disparities
  - Identify strategies to improve the social context for change

- Preliminary understanding of best practices
  - Identify barriers and facilitators to dissemination of best practices