

A framework for developing and implementing Total Worker Health™ interventions in Construction

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Total Worker Health Symposium,
Symposium 1.1

7 October 2014

9:30 am– 10:45 am



All the Right Moves



FRAMEWORK FOR DEVELOPMENT:

Aim 1: Develop a worksite-based, multi-component, and integrated musculoskeletal disorders prevention and health promotion intervention for workers in commercial construction

FRAMEWORK FOR EVALUATION:

Aim 2: Complete a feasibility study of the developed worksite based intervention on six sites, randomly assigned to either intervention (five sites) or controls (five sites) with 420 workers total (70 per site) measured at baseline and at six-month follow up

Proposed conceptual model



Global Context

- **Highly Varying Commercial construction;**
- Sites of work frequently change
- No two projects are identical.

Worker Context

- **Worker Characteristics**
 - High MSD Rate
 - High rates of tobacco use
 - High numbers overweight
 - Mostly male

- General Contractors
- Sub-contractor/Foreman

Intervention Targets

Work Environment

- Lifting, Overhead, ground/floor, hand work
- Demands of physical activity at work

Work Organization

- People Oriented Culture
- Safety Practices
- Ergonomic Practices
- Safety Leadership

Psychosocial Factors

- Super/coworker support

Integrated Program:

- Integrated activities
 - Work pre task planning
 - Inspections
 - Stretch & Flex
- Integrated training
 - Health leadership
 - Tool Box Talks
 - Site Orientations

Proximal Outcomes

- **Knowledge/Awareness**
- **Self-efficacy for health and safety**
- **Social Norms around ergonomics, tobacco and physical activity**
- **Use of and participation in intervention tools and activities**

Outcomes

Health Behaviors:

- Tobacco Use
- Physical Exercise

Worker Health:

- Fatigue
- Pain
- **Workability** Functional Limitations

Worksite/Unit Context

PROPOSED PROGRAM OVERVIEW

Proposed Trainings:

Integrated program for worker health and productivity

Supervisor training: Integrated program management
Worker training: Toolbox talk · Safety orientations

Musculoskeletal health

Cardiovascular Health

Ergonomics

Physical Activity

Tobacco Cessation

Proposed Activities:

Task pre-planning:

- Checklist for the *Ergo 4*
- *Ergo 4* Simple Solutions
- Database of solutions
- Posted *Ergo 4* solutions
- Employee feedback

Inspections:

- Including *Ergo 4*

Supervisor training:

- *Ergo 4* risk (1 hr)
- *Ergo 4* solutions (1 hr)

Worker training:

- Toolbox talk on *Ergo 4*

Physical activity:

- Daily 10 min warm up (stretch & flex/ walk) integrated with daily task pre-planning activities
- Local walking routes posted
- Simple facilities, eg hoops
- Challenges (competitions)

Inspections:

- Posted routes / activities

Worker training:

- Toolbox talk on *PA*

Safety orientations:

- CO measurements with Toolbox talk

Tobacco cessation referral:

- 1-800 QUIT NOW
- NRT
- DIY kits

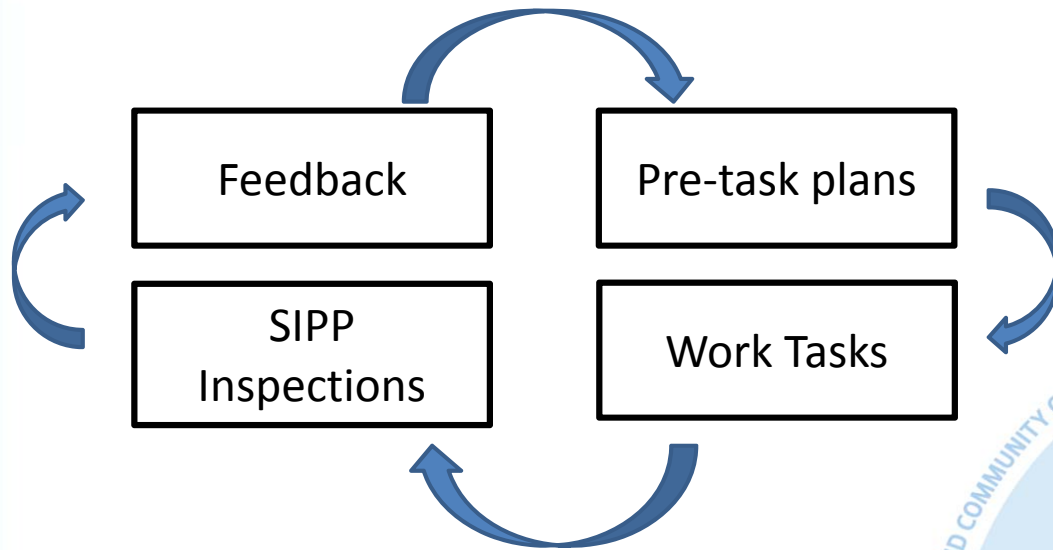
Inspections:

- Posted policies and cessation activities

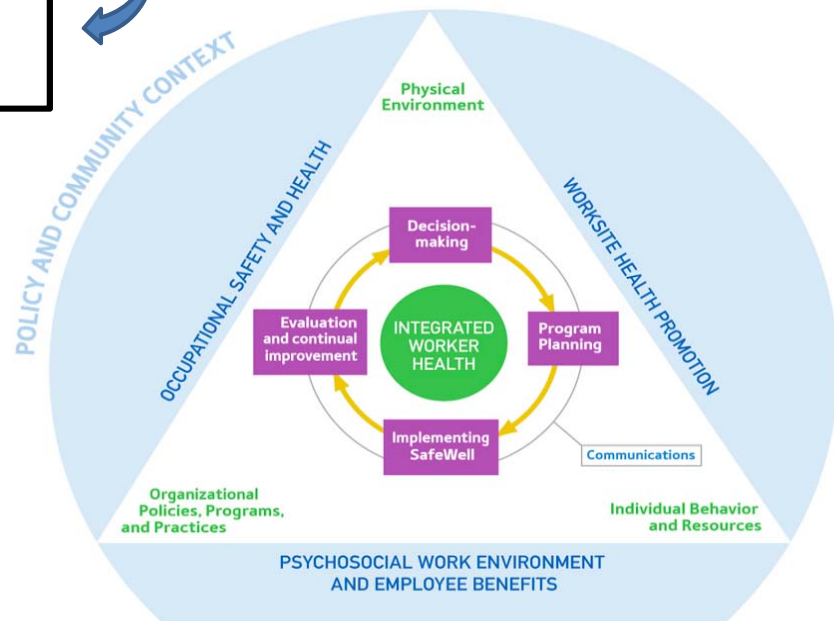
Worker training:

- Toolbox talk on CO
- Toolbox talk on TC

Soft-tissue Injury Prevention



Built from safety programs (Z10) and matching our own implementation guidelines



SafeWell Integrated Management System (SIMS) for Worker Health



Reality hit



Key informant, focus groups, and pilot testing.

- Can't do many Physical Activity activities on site
- Physical Activity of construction work is already high
- Workers come and go on site, difficult to capture all workers and sustain health promotion activities.



Health week

Education & engagement & health coaching





All the Right Moves

Musculoskeletal health

Cardiovascular Health

StIPP
Soft Tissue Injury Prevention Program

Health Week
(get workers signed up for Health Coaching)

Activities:

- Task pre-planning:**
- Checklist for the *Ergo 4*
 - Ergo Simple Solutions
 - Database of solutions
 - Posted *Ergo 4* solutions
 - Employee feedback
- Inspections:**
- Including *Ergo 4*
 - Weekly Reports to Foremen and workers
- Supervisor training:**
- StIPP (1/2 hr)
 - Adding Ergo to pre-task planning workshop (1/2 hr)
 - Weekly Meetings with foreman
- Worker training:**
- Toolbox talk on Ergo and Health

- Monday:**
- What is health coaching
- Tuesday:**
- StIPP Program – the components
- Wednesday:**
- Tobacco cessation
 - CO measurements
- Thursday:**
- Food and Activity
- Friday:**
- Questions and Health Coaching sign up

- Health Coaching:**
- 4 sessions
 - No cost to worker
 - PA/Diet, Tobacco Cessation
- Tobacco cessation referral:**
- NRT
 - Online Resources
 - 1-800 QUIT NOW

Intervention →

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 - Health Week
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 - Health Week

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Health week (education & engagement)



Intervention →

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Challenges



- Integration – Achieved through integrated messages having integrated key points (e.g. fit for work and life or plan for work and life) from a single branded program – left on the continuum.
- The changing workplace and work force in commercial construction require innovative approaches to total worker health.







Conceptual model provided

- Flexibility in implementing a program
- Adaptable to the environment and current programs.
- Multiple opportunities, pathways, and management levels for intervention targets.



Symposium 2.1 11:00 am – 12:15 pm

Lauren Murphy	Safety climate and the organizational complexity of worksites	
Emily Sparer	Worker flow on and off commercial construction sites	
Justin Manjourides	Simulating the effects of interventions on a mobile work force	
Cassandra Okechukwu	Strategic partnership and collaborations for TWH: Two Models	

Acknowledgements



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Model for evaluation

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