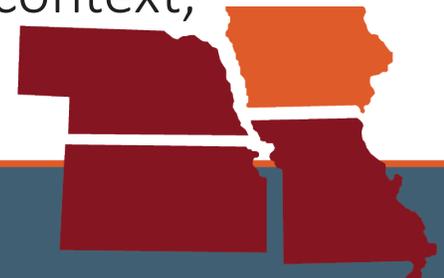


# #3 Develop a core set of measures and outcomes that are incorporated into all integrated intervention studies

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- Should reflect stakeholders' priorities and be built from a common conceptual framework
- Common measures are needed to determine baseline, intermediate, and long-term effects across studies, including valid and reliable measures of intermediate factors, such as high blood pressure; high cholesterol level; health outcomes; and risk behaviors, such as tobacco use and unhealthy eating.
- Outcome measures, including work-related illness and injury, should be harmonized where possible and limited within domains to reduce heterogeneity in future reviews and provide opportunities to pool findings in meta-analyses.
- Define key domain-specific contextual factors: the policy environment, worker populations, worksite characteristics, employer characteristics, financial context, health care access, and community and neighborhood contexts.



# Measurement Topic 1

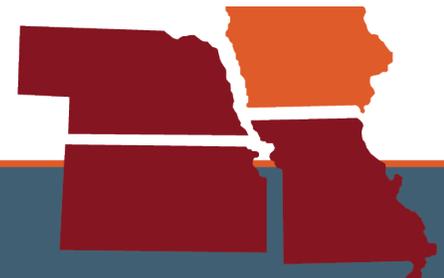
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Review of compiled measures and outcomes from Total Worker Health studies.

## Output:

A summary of current outcomes and measures in TWH research. (e.g., health, safety, utilization, occupational injury and illness surveillance, well-being and intermediate outcomes).

*Moderator: Kevin Kelly, PhD, Healthier Workforce Center at the University of Iowa*



	A	B	C	D	E	F	G
1	Study	Pronk	Anger	Feltner	CASE STUDIES	Larger Study	Design
2	Aljhajah et al., 2012	X	X				Quasi experimental/Two-group non-equivalent control group pretest/posttest quasi-experimental design
3	Allen et al., 2003			X			Controlled, nonrandomized, pre-post quasi-experimental
4	Barbeau et al., 2004		X	X		Healthy Directions	randomized, controlled workplace intervention trial
	Bertera, 1990		X				Two-group nonequivalent control group pretest/posttest quasi-



# Case Studies: Outcome Measures

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Health and safety outcomes (e.g., mortality, incidence of injuries, cardiovascular disease or cancer; morbidity related to injuries, illness or chronic disease; depression or anxiety; validated measures of functional status; QOL; stress or distress)

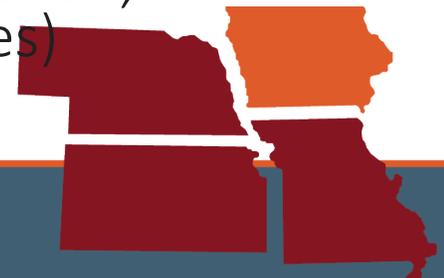
Utilization outcomes (e.g., hospitalizations, ED visits, outpatient clinic visits)

Occupational injury and illness surveillance outcomes (e.g., WC claims, injury or illness surveillance outcomes)

Intermediate outcomes (e.g., Tobacco, alcohol or other drug use; weight or BMI; blood pressure; cholesterol; exercise frequency; healthy eating behavior; hazardous work exposures; near misses)

Process outcomes (e.g., participation rates, recruitment methods)

Measures of Integration (e.g., organizational commitment, worker participation, content addressing both safety and health promotion, coordinated activities)



# Pronk 2013

script

## Experimental Studies on Integration of Worker Health Protection and Promotion Programs

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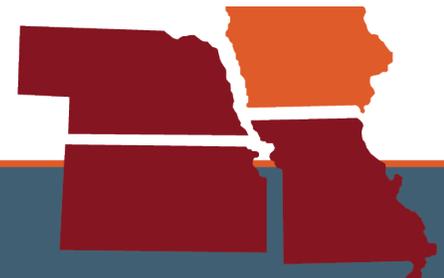
Study and Reference	Design	Health Outcomes	Economic Outcomes		Comment
			Productivity Loss Reduction	Health Care Expenditures	
The Brabantia Project (47)	Quasi-experimental pre-post study with comparison sites	+	+	NA	Study to improve the health and wellness by means of lifestyle changes and changes in working conditions among Dutch workers (3 Brabantia sites) and measured through changes in behavior, health risks, stress reactions, quality of work performed, and absenteeism
WellWorks-1 (48)	RCT at the worksite level	+	NA	NA	Study on the effects of a 2-year integrated health promotion and health protection intervention on changes in dietary habits and smoking
WellWorks-2 (49)	RCT at the worksite level	+	NA	NA	Study on the effects of an integrated health promotion and health protection intervention on participation in health promotion programs as well as programs to reduce exposures



# Observations from Workshop Discussions

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- Methods & Measures exist to address OSH questions
- No need to “reinvent the wheel”
- The selection of methods & measurement should be driven by the research question.



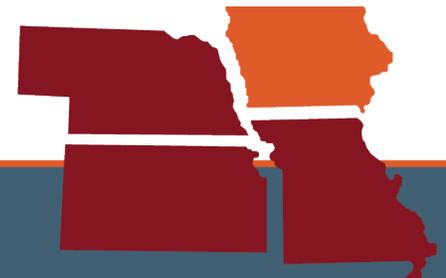
~~Total Worker Health~~

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# 3 Reviews of Integrated Interventions

Pronk 2013	Anger et al., 2015	Feltner et al., 2016
<p>Intervention and control or comparison groups and that provide direct evidence on the impact of integrated worker health programs on health-related outcomes and economic indicators</p>	<p>Intervention evaluation studies, analyzed with inferential statistics, published in the peer-reviewed literature, that:</p> <ul style="list-style-type: none"><li>(a) employed both traditional occupational safety and/or health (OSH, or health protection) AND wellness and/or well-being (HP) in the same intervention study;</li><li>(b) reported outcomes relevant to both OSH and HP, whether those results were statistically significant or not</li></ul>	<p>Intervention had to be designed with the dual objective of improving workplace health and safety and overall health, health behaviors, or risk factors for chronic diseases.</p> <p>Must include a <b>component aimed specifically at improving workplace health and safety</b> and a <b>component aimed at improving overall health, health behaviors, or risk factors for chronic diseases</b></p> <p>Only studies with a concurrent control group</p>
<p>N=11</p>	<p>N = 17</p>	<p>N = 15</p>

# Conceptual Model

