



THE CENTER FOR CONSTRUCTION  
**RESEARCH AND TRAINING**

# New Research on Mental Health & Construction Part 2

**JUNE 17, 2025**

**Moderator:** Chris Trahan Cain, CIH, Executive Director, CPWR

**Panelists:**

**Behzad Esmaeili, PhD**, Associate Professor of Civil and Construction Engineering & Joint Appointment with Industrial Engineering, Purdue University

**Bradley Evanoff, MD, MPH**, Professor of Occupational, Industrial, and Environmental Medicine, Assistant Dean for Clinical and Translational Research, and Director of the Division of General Medical Sciences, School of Medicine


# Housekeeping

- Today's webinar will be recorded and automatically shared via follow-up email.
- The recording and slides will also be posted on [cpwr.com/webinars](https://cpwr.com/webinars).
- Attendees are automatically muted! Please submit panelist questions via the Q&A box.
- Spanish audio is available via simultaneous interpretation

# Simultaneous Interpretation

## Interpretación simultánea

### WINDOWS - MAC (Navegador web/Browser)


1. En los controles del seminario web, haga clic en **Interpretación** 
2. Haga clic en el idioma que desee escuchar.
3. (Opcional) Para escuchar solo el idioma interpretado, haga clic en **Silenciar audio original**.

**Nota:** Hay que unirse al audio del seminario web a través de audio o VoIP de la computadora. No podrá escuchar la interpretación de idiomas si utiliza las funciones de audio de teléfono [llamada directa](#) o [recibir llamada](#).

### ANDROID - iOS (Aplicación móvil/Mobile App)

1. En los controles del seminario web, toque los puntos suspensivos **...**
2. Toque **Interpretación de idiomas**.
3. Toque el idioma que desee escuchar.
4. (Opcional) Toque el botón de alternancia **Silenciar audio original**.
5. Haga clic en **Finalizado**.

**Nota:** No podrá escuchar la interpretación de idiomas si utiliza las funciones de audio de teléfono [llamada directa](#) o [recibir llamada](#).

1. In your webinar controls, click **Interpretation** 
2. Click the language that you would like to hear.
3. (Optional) To hear the interpreted language only, click **Mute Original Audio**.

**Note:** You must join the webinar audio through your computer audio/VoIP. You cannot listen to language interpretation if you use the [dial-in](#) or [call me](#) phone audio features.

1. In your webinar controls, tap the ellipses **...**
2. Tap **Language Interpretation**.
3. Tap the language you want to hear.
4. (Optional) Tap the toggle to **Mute Original Audio**.
5. Click **Done**.

**Note:** You cannot listen to language interpretation if you use the [dial-in](#) or [call me](#) phone audio features.

# SUICIDE PREVENTION PRACTICES FOR IRONWORKERS

*Research Team :*

**Johnson Adetooto**

**Maritsa Romero, MPH**

**Laura Schwab Reese, Ph.D.**

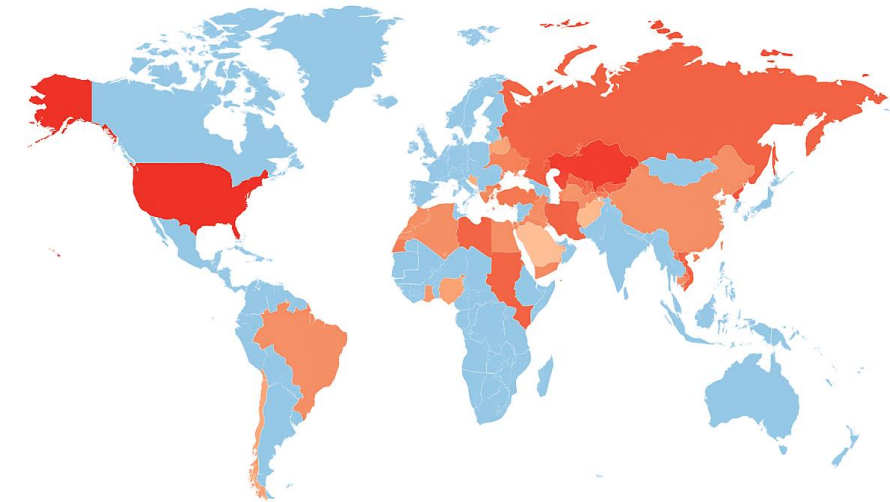
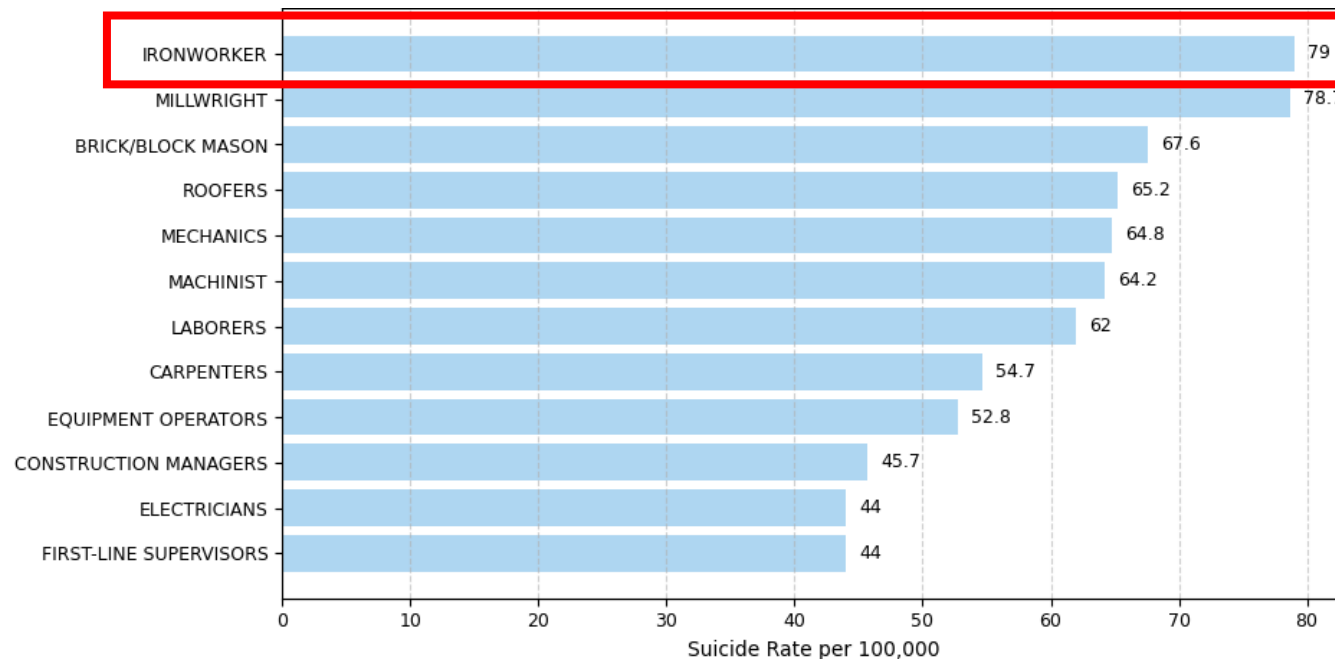
**Behzad Esmaeili, Ph.D.**





## Significance

- In 2022, **6,000** U.S. Construction workers died by suicide
- **6 Times** more than on-site construction fatalities



One death every 43 seconds



**5.7 times**  
*the national average*

# Causes of Suicide

## Causes of Suicide in Construction

### Antecedents

- Alcohol, drug use
- Relationship problems
- Low job control
- Work-family conflict

### Unstable work environment

- Frequent project changes
- High turnover rates
- Job insecurity
- Tight deadline

## Ironworkers' Specific Factors

### Hazardous work environment

- Exposure to toxins, radiation, vibration
- Physically demanding and high-risk tasks

### Psychosocial stressors

- Isolation at heights
- High pressure to meet production demands

## Gaps in Knowledge

- ❑ Many global suicide prevention efforts exist, but most are not trade-specific.
- ❑ Construction-focused programs often lack targeted support for high-risk groups like ironworkers.
- ❑ Current strategies are too generic—ironworkers need tailored, employer-initiated mental health interventions.



## Aim and Objectives

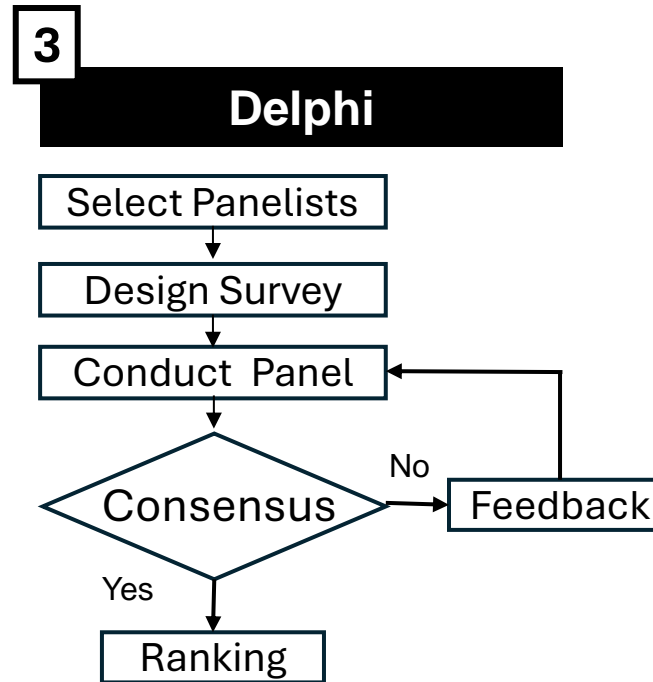
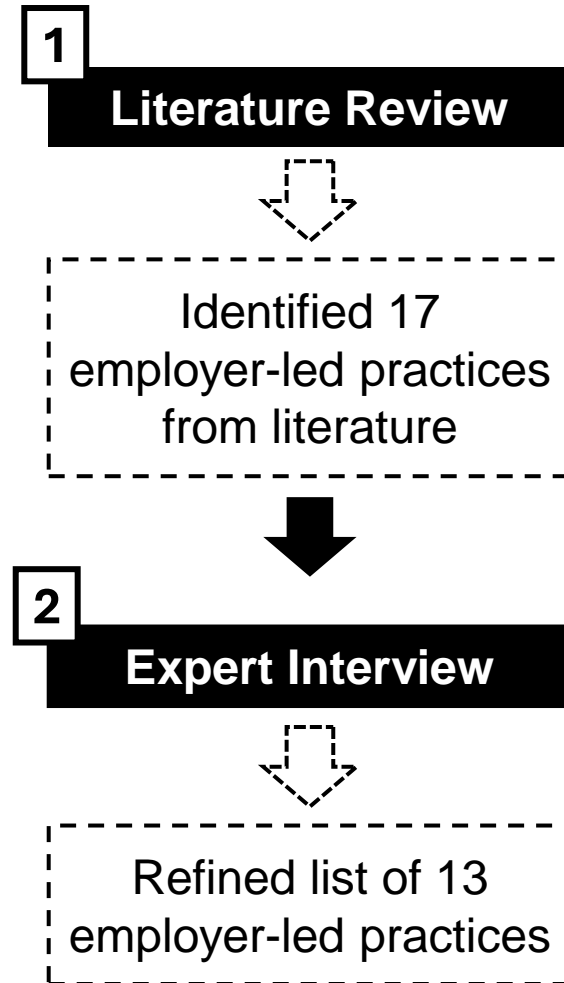
**Overall Aim:** is to identify and evaluate best practices to prevent suicide among ironworkers.

### Specific Objectives:

1. Identify and prioritize employer-led practices to improve mental health;  
and
2. Conduct a longitudinal assessment of the Living Works suicide prevention training program.



## Obj #1 - Identify and Prioritize Employer-led Practices



Bias	Control
✓ Contracts	Randomize
✓ Myside bias	Provide reasons
✓ Recency	Panelist removal
✓ Dominance	Anonymity

### Consensus

- ✓ Median absolute deviation
- ✓ Kendall's W
- ✓ Cronbach's  $\alpha$

$$Abs. Dev. = \frac{\sum |X - Median|}{N}$$

Where

X = panelist rating

N = number of ratings

**Obj #2 - Longitudinal Assessment of the Living Works and ASSIST program.****Safetalk****Aim**

Recognizing warning signs of suicide and connecting at-risk individuals

**Activities**

- a) Identifying verbal, behavioral cues;
- b) Practicing referral techniques

**Outcome**

Enhance foundational awareness of suicide risks and referral capabilities

***Duration:*** 3 hours

**Asist****Aim**

Advanced intervention skills, including trust-building and safety planning

**Activities**

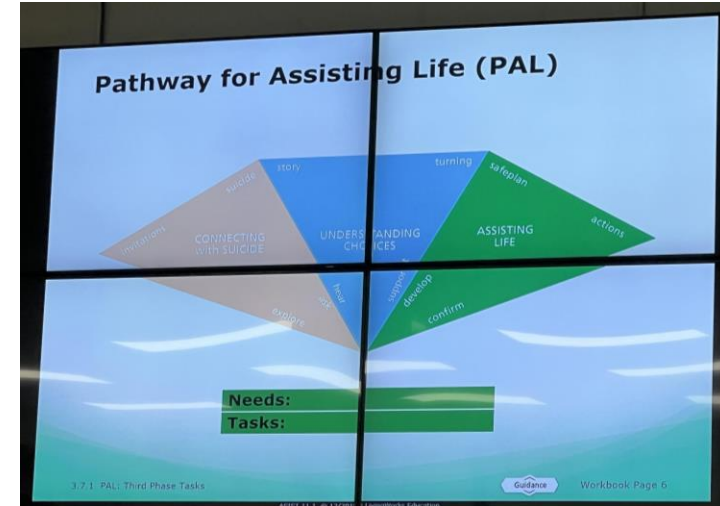
- a) Role-playing scenarios
- b) Group discussions
- c) Applying PAL model

**Outcome**

Equip participants with practical skills for direct intervention and safety planning

***Duration:*** 14 hours (2 days)

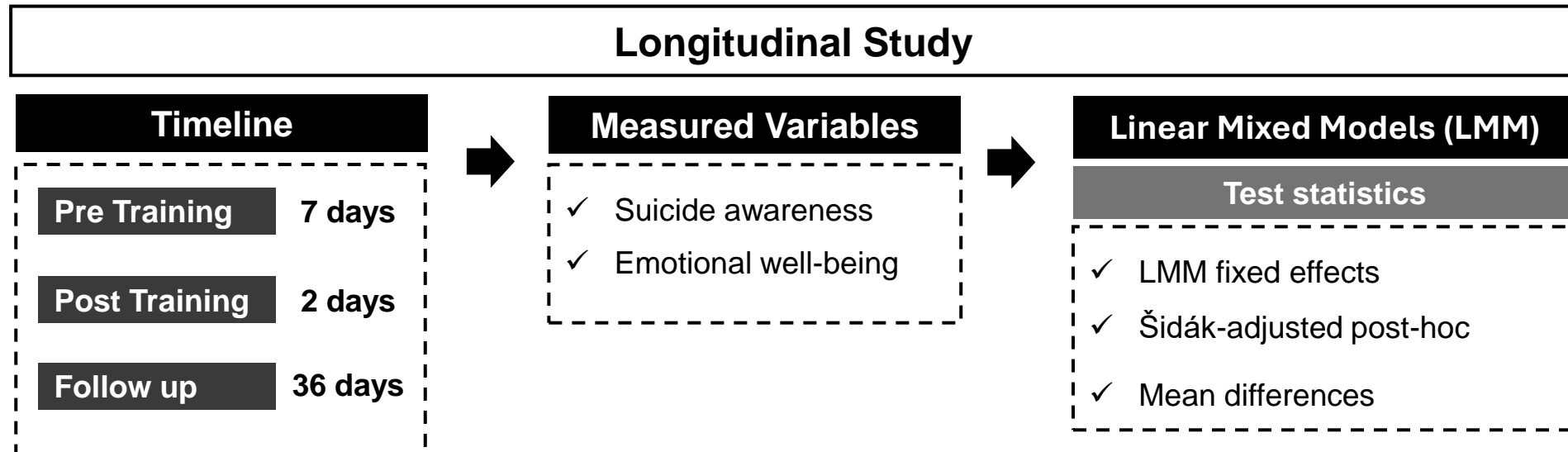
## Obj #2 - Longitudinal Assessment of the Living Works and ASSIST program.



## Obj #2 - Longitudinal Assessment of the Living Works and ASSIST program.

### Research Questions

1. Does the training enhance emotional well-being among ironworkers over time?
2. Does participation in LivingWorks ASIST/safeTALK improve ironworkers' suicide awareness
3. Does LivingWorks ASIST/safeTALK sustain suicide awareness improvements in ironworkers over time?



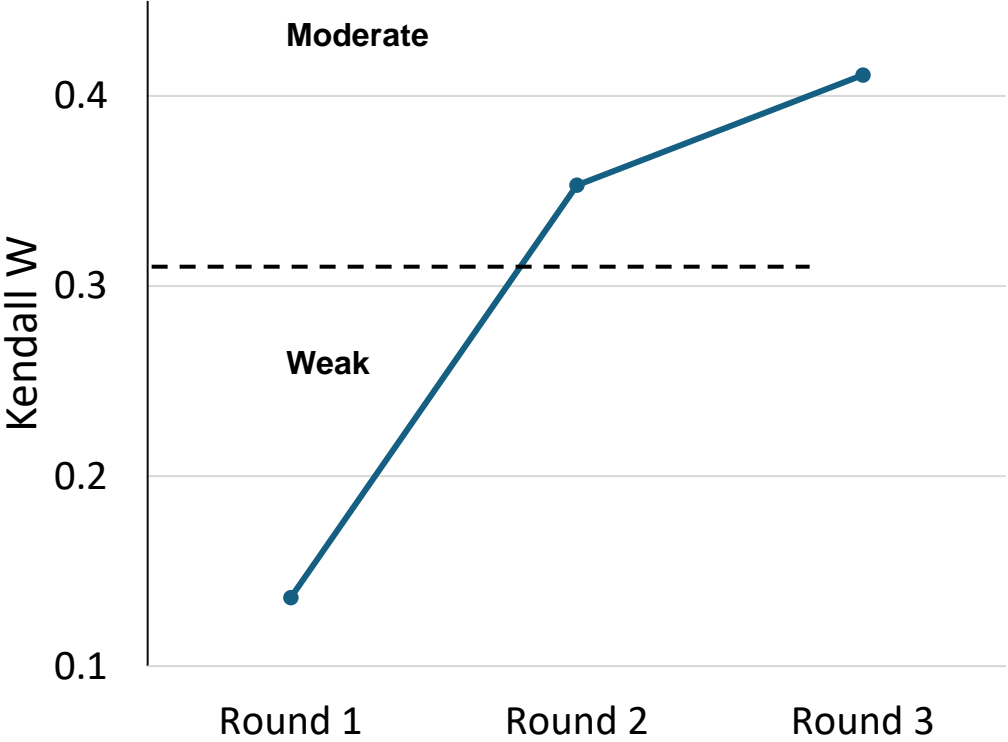
## Obj #1 - Identify and Prioritize Employer-led Practices

S/N	Employer-Led Practices
1	Train employees to detect and refer suicidal coworkers.
2	Use role-play to teach suicide crisis intervention.
3	Follow up after injury or suicide attempt.
4	Add mental health topics to safety training.
5	Promote connection through team-building activities.
6	Support return-to-work after illness or injury.
7	Discuss mental health in meetings and communications.
8	Offer counseling after failed drug tests.
9	Use guest speakers to encourage help-seeking.
10	Distribute suicide prevention items (e.g., stickers, bracelets).
11	Limit mandatory overtime and travel.
12	Educate on diversity and anti-discrimination.
13	Enforce zero-tolerance for bullying and harassment.



Obj #1 - Identify and Prioritize Employer-led Practices

Consensus



	Rounds		
Metric	R#1	R#2	R#3
Cronbach's (α)	0.921	0.930	0.932
Number of respondents	13	13	13
Kendall's (W)	0.136	0.353	0.411
Consensus level	Weak	Weak	Moderate
Chi square	28.2	55.012	64.064
Degree of freedom	12	12	12
Significant level	0.008	< 0.001	< 0.001

## Obj #1 - Identify and Prioritize Employer-led Practices

### Top 7 Employer-Led Practices

Mental health education (safety training)

Follow-up after injury/suicide attempt

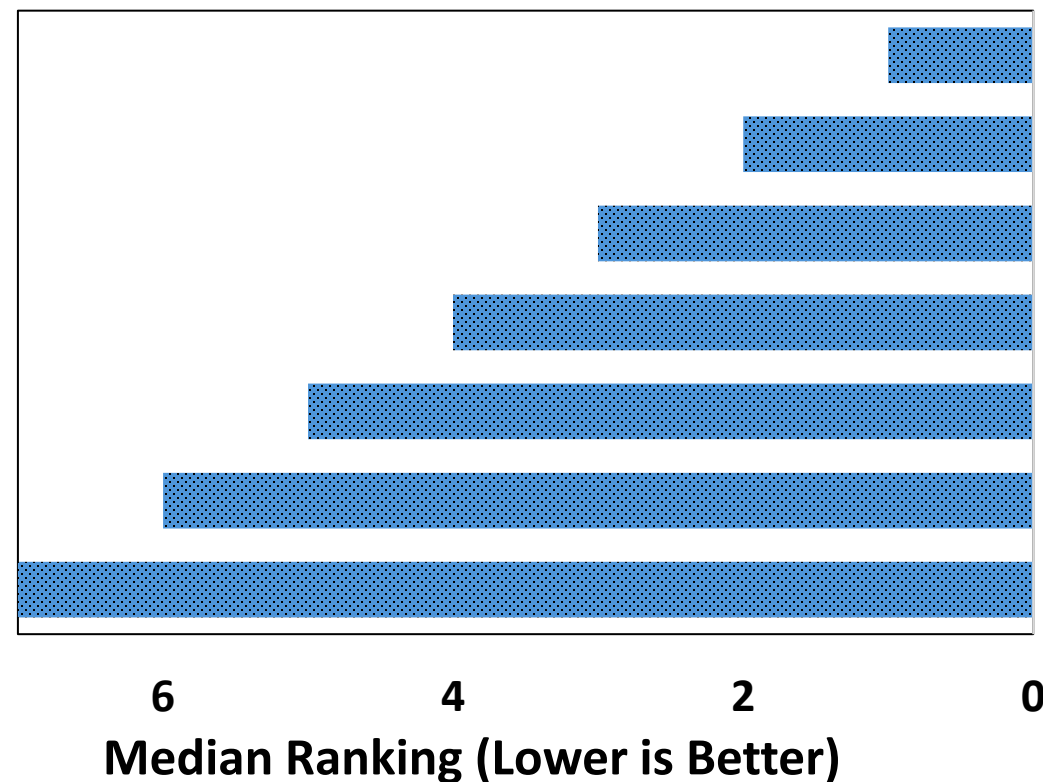
Train to detect suicidal signs

Return-to-work programs

Zero-tolerance for bullying/harassment

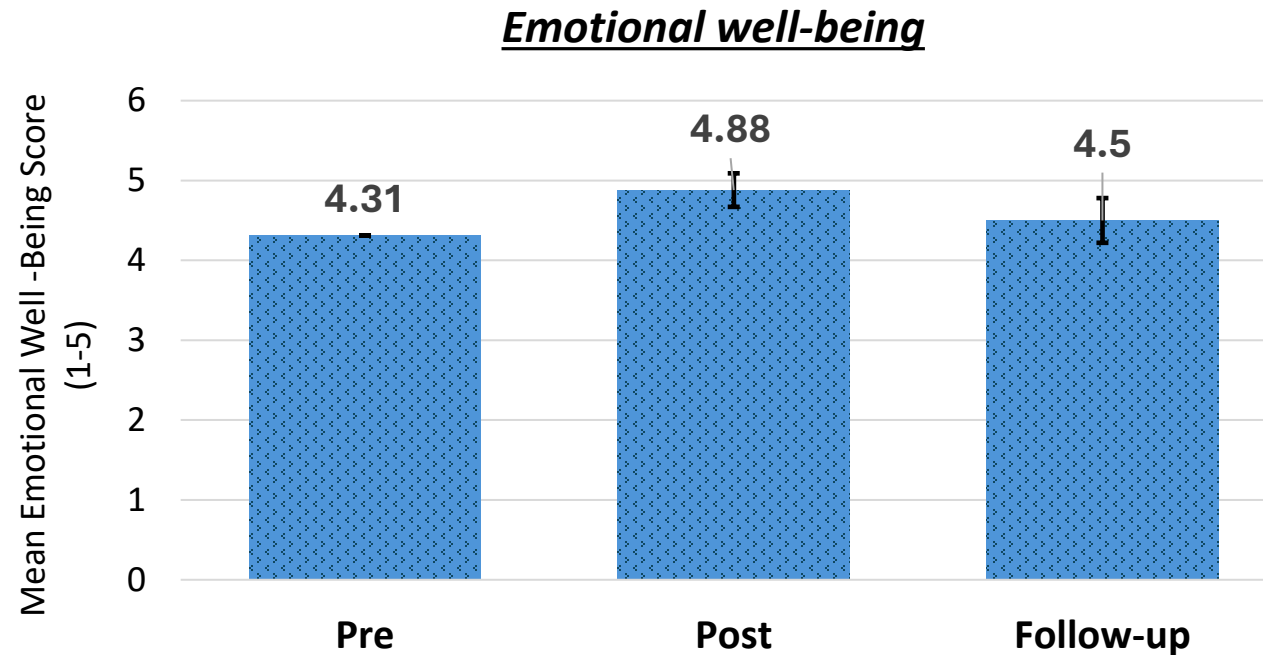
Stand-down/guest speaker

Diversity & discrimination education



## Obj #2 - Longitudinal Assessment of the Living Works and ASSIST program.

*Q: Does the training enhance emotional well-being among ironworkers over time?*



1. No lasting well-being improvement ( $p = .122$ ).
2. Short-term boost faded (Post: 4.88  $\rightarrow$  Follow-up: 4.50).
3. Training alone is insufficient (needs structural support).

## Obj #2 - Longitudinal Assessment of the Living Works and ASSIST Program.

*Q: Does participation in LivingWorks ASIST/safeTALK improve ironworkers' suicide awareness?*

### Suicide awareness

Asking about suicide increases risk

Recognize warning signs

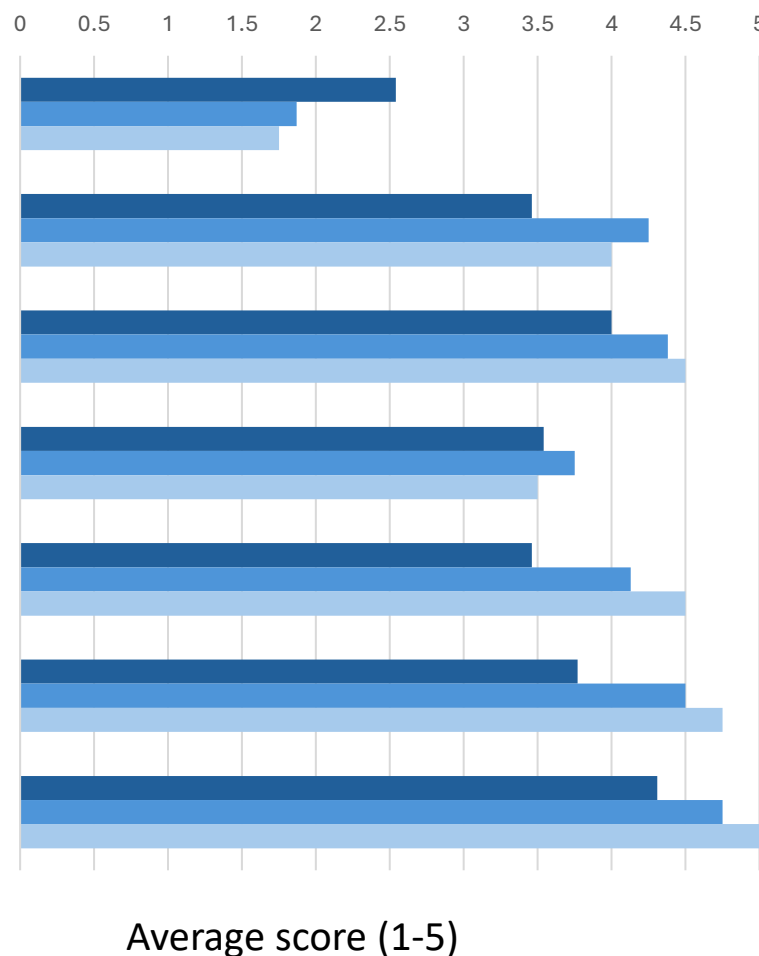
Suicide is a serious problem

Willing to ask for help

Know who to talk to

Notice coworker in distress

Willing to offer help



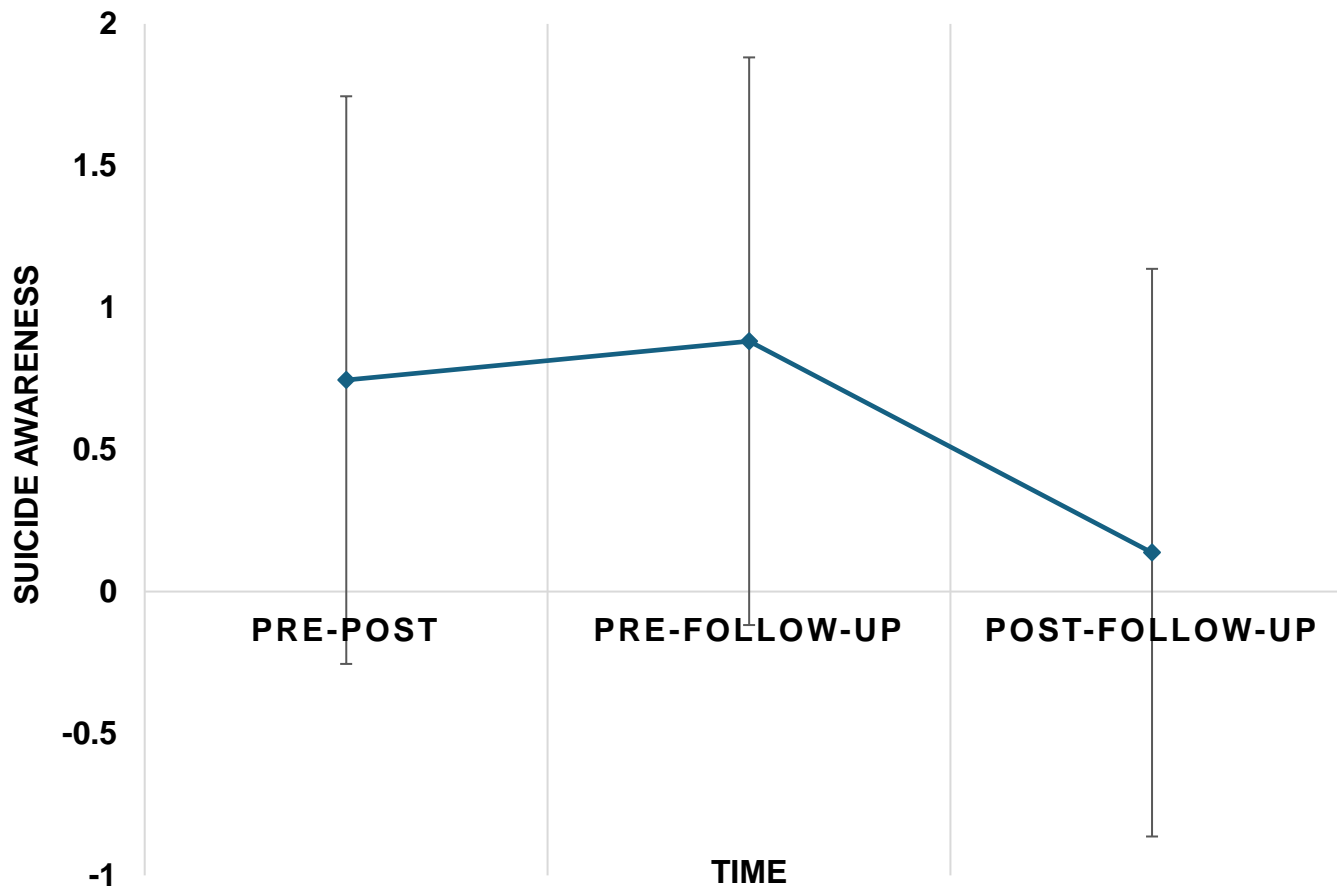
**1. Significantly improved suicide awareness ( $p < .001$ ).**

**2. Better recognition of warning signs (B2: 3.46→4.25).**

**3. Reduced harmful myths (B1: 2.54→1.75).**

## Obj #2 - Longitudinal Assessment of the Living Works and ASSIST Program.

*Q: Does LivingWorks ASIST/safeTALK sustain suicide awareness improvements in ironworkers over time?*



1. **Immediate post-training boost** (large positive bar)
2. **Sustained gains at follow-up** (smaller positive bar)
3. **Partial decline from a peak** (slight negative bar)



# Conclusions

## Findings

- ❑ Identify and rank employer-led practices to prevent suicide.
- ❑ Provide empirical evidence regarding the long-term impact of a suicide prevention training.

## Limitations

- ❑ Small sample size limits generalizability

## Future Works

- ❑ Apply behavioral theories to test how practices influence worker attitudes and actions.
- ❑ Develop models linking employer actions to mental health outcomes using theoretical frameworks.

Thank you for your time!



# Evaluating the Implementation of Two Peer-Support Programs for Mental Health



Washington  
University in St. Louis

---

SCHOOL OF MEDICINE

Healthy Work Center

Brad Evanoff  
Sami Tayeb

# Intro / Goals:

- Many trade unions and contractors are implementing *peer support programs* to better prevent suicide and protect mental health
- Little practical information about the barriers and facilitators of implementing peer support programs
- Evaluated the implementation, organizational effects, and effectiveness of two peer support programs

# Greater St. Louis Construction Laborers Health and Welfare fund

- Serves Locals 110 and 42 (~4200 active members and ~7000 retired members and dependents)
- “LEAN StL” program based on the “Laborers Escaping Addiction Now” program pioneered in Boston, includes an expanded focus to address suicide prevention and other mental health topics
- Two peer counselors hired March 2023, completed >200 hours of training, including MO certification for Peer Support Specialist and Community Health Worker, additional training in Behavioral Health and Substance Use counseling; joined the National Peer Recovery Alliance



# Key Activities of LEAN StL Peer Counselors

- Provide advice and referral to individual workers and dependents
- Jobsite talks
- Apprentice classes on mental health and SUD
- Serve as interface between the union members and their MAP
- Help members to get access to union-sponsored benefits and community resources
- Reaching out to contractor associations
- Working to create a network of support

# Semi-structured Interviews

- 15: Union leaders, trustees, business agents
- **Adoption and Buy-In:** relatively smooth, initial concerns about cost
- **Satisfaction and Impact:** meeting or exceeding expectations, personal stories are key to perceived impact
- **Awareness and Utilization:** continuous communication is key; lived experience of the peer connectors seen as helpful to reducing stigma and encouraging utilization
- **Program fit and relevance:** peer support approach seen as particularly effective, good acceptance by leaders and workers

# Semi-structured Interviews (cont'd)

- **Sustainability:** ongoing need for mental health and substance use support is expected to maintain the program's relevance; program will need to evolve over time to meet the needs of members
- **Cost and Feasibility:** stakeholders believe the benefits far outweigh the costs
- **Challenges and Areas for Improvement:** need for additional staff as program grows
- **NEXT STEPS:** Continue interviews with leaders, interview members who have sought assistance through the peer counselors

# Other evaluation metrics

- Increased utilization of health plan and Member Assistance Program
- # Health plan claims for mental health / addiction increased ~ 20% in year following program implementation
- Program continues to thrive

# Second site – Tarlton Corporation

- Adapted the Australian suicide prevention program “MATES in Construction” for application in the US construction industry to improve awareness of suicide, and to increase help-seeking, help-offering, & referral
- St. Louis General Contractor, ~250 employees; 20-25 job sites
- Employs Union carpenters, cement masons, laborers, iron workers
- Participant in Suicide Prevention Stand-Downs since 2019



# Implemented pilot of a MATES adaptation

- Two day ASIST training for HR, safety managers
- Half-day SafeTalk Training for Peer Connectors
- General Awareness Training for all workers: Five days of TBTs Sept '23
- Hard Hat Stickers, resource cards
- Final TBT promoting the program: Jan 2024
- Interviews with trained personnel: March-May 2024



# Semi-structured Interviews

- 11 : HR, Workforce management, Superintendants, Safety Manager
- **Value of training:** SafeTALK and ASIST valuable and useful; increased confidence; recurring theme was that real life practice needed. Some had already used skills
- **Awareness/Observation/Empathy:** increased
- **Support Systems and Resources:** make it easier to connect individuals to the right resources based on their trust and comfort

# Semi-structured Interviews (cont'd)

- **Challenges and Suggestions:** share success stories, continuous education and refreshers, address specific needs of diverse populations
- **Overall Reception:** Worker reactions to GAT perceived as neutral to positive; over time, receptivity to program increased. Stigma about discussing mental health seen as decreasing. Peer connectors seen as beneficial in making support more accessible and creating culture of openness and support.

# Follow-up studies on MATES adaptation

- Implemented a second pilot program at United Erectors in Des Moines with similar results
- Received grant from CPWR to Implement and Evaluate MATES adaptation in six construction contractors
- Initial training underway in two contractors in Greater StL.



Healthy Work Center

<https://oshr.wustl.edu>

healthyworkcenter@wustl.edu

Many thanks to CPWR and -  
Greater St. Louis Construction Laborers Health and Welfare Fund  
Tarleton Corporation – Ryan Wehrle  
AGCMO – Brandon Anderson  
Healthier Workforce Center of the Midwest – Diane Rohlman  
United Erectors in Des Moines – Brad Churchill



Scan the QR code to learn more  
in the May CPWR report

# Highlighted CPWR Resources

- **Main Mental Health Page:** <https://cpwr.com/mentalhealth>
- **[Suicide Prevention](#) page**
- **[Mental Health Resilience Training](#):** A free discussion-based training with 9 modules that cover topics from general health, opioid awareness, suicide awareness, motivational interviewing. Each module can be taught in 30–50-minute sessions. Pick and choose those that work for you.
- **[Opioids Resources](#)**
- **CPWR/NABTU Opioid Awareness Training Program:** This piloted and updated training, intended for use by experienced instructors, can be utilized to increase awareness of the dangers of opioids and decrease the stigma associated with opioid use and asking for help.
  - [Presentation](#)
  - [Facilitator Guide](#)
  - [Participant Handout](#)
- **New newsletter sign-up:** [REASON \(Resources and Effective programs Addressing Suicides and Opioids Now\)](#)

# Highlighted CPWR Resources

- [All 5 new research papers on mental health](#)
- [Previous Webinars](#) (scroll to Mental Health category)
- **Data Center publications:**
  - [Fourth Quarter 2019 QDR](#) on opioid deaths on the job and opioid use among construction workers
  - [January 2022 Data Bulletin](#) on mental health during pandemic
  - [January 2023 Data Bulletin](#) on leading causes of death among construction workers
  - [September 2024 Data Bulletin](#) on mental health trends
  - [April 2025 Data Bulletin](#) on construction worker injuries, overdoses, and suicides