

National Institute of Environmental Health Sciences
Worker Training Program

Exploring Workplace Training Interventions Addressing Workplace Stress and Addiction

Report from the
Spring 2019 Workshop



Sponsored in conjunction with



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Executive Summary

In fall 2018, the NIEHS [Worker Training Program](#) (WTP) hosted a technical workshop focused on [opioid-related hazards in the workplace](#). This workshop brought to light how opioids impact the body, and which industries face the highest risk of overdose. It also pointed to the importance of prevention and eliminating stigma associated with misuse and addiction.

But the issue of addiction goes beyond opioids, as workers may use other drugs and substances to cope with work-related injuries and stress.

In spring 2019, WTP delved further into conversations about how [work-related stress](#) may contribute to substance use and addiction during a workshop held in Pittsburgh. More information about the agenda and presentation slides can be found on the [workshop website](#). The following are key themes from the workshop that should be considered to develop future workplace training curricula and promote a framework of prevention:

- Psychological stress, substance use, and addiction are important points of conversation to address health and safety for all workers. There is a connection between these issues and work-related injuries, trauma, and other workplace hazards.
- No worker is exempt from (or immune to) experiencing psychological stress, addiction, and other mental health and behavioral issues. They can affect everyone. These issues not only impact the worker, but they also impact workers' families, colleagues, and communities.
- By following the public health model – primary, secondary, and tertiary prevention – WTP grantees and partner organizations seek to mitigate risk factors that would lead to injuries, psychological stress, substance misuse, and suicide among workers.
- The peer support and advocate model has proven to be effective in reducing stigma and getting workers who need treatment into the recovery process.
- Access to treatment should be swift and include a variety of options that suit individual needs. One size (treatment) does not fit all.
- Employers, managers, unions, and organizations should integrate mental health resiliency as part of their training for workers. Similarly, employers should focus on enhancing their organizational capacity to better care for workers' psychological well-being.
- Eliminating stigma and reforming punitive workplace programs are key steps that can encourage workers to get help. Sharing stories is an effective strategy for combatting stigma.



A Note from WTP Director Joseph “Chip” Hughes

Just before the fall 2018 meeting, the Centers for Disease Control and Prevention (CDC) and the National Institute for Occupational Safety and Health published the first national data looking at opioid-related deaths by industry and occupation. We were troubled to learn that many of the workers that we provide training to worked in industries and held occupations that were included in the increased risk list.

At the same time, a study on [high-risk occupational opioid deaths in Massachusetts](#) raised the issue of work-related injuries as a trigger point for initial prescriptions, chronic drug usage, and resulting addiction and death.

Stress has emerged as a core issue for disaster responders at the Gulf of Mexico oil spill and ground zero, as well as Hurricanes Katrina, Harvey, Maria, and Florence, and Superstorm Sandy. We now know that chronic and acute workplace stress is an environmental and occupational health issue, as well as a trigger for substance use.

The journey to untangle the workplace opioids crisis took a great step forward at our spring 2019 meeting in Pittsburgh, where we heard the perspectives of workers, users [recovering addicts], and their family members on stigma and lack of treatment for workers. We are beginning to see a path for our training program to make a difference.

(Photo courtesy of Steve McCaw, NIEHS)

Introduction

Why Is This Topic Important?

The World Health Organization defines work-related stress as the response that people may have when presented with work demands that are not matched to their knowledge and abilities and which challenge their ability to cope. Demands of the contemporary work environment make workplace pressures and stress seemingly unavoidable.¹

Several factors can contribute to workers' levels of stress, including poor wages, long hours, and limited staffing.² Such stress is possible in any occupation, but very common in physically demanding and hazardous jobs, like construction and transportation. PTSD is common, especially as it relates to [workers involved in emergency and disaster response](#).

- 1 [World Health Organization, Occupational Health, Stress at the Workplace](#). [Accessed 23 July 2019].
- 2 [Total Worker Health, National Institute for Occupational Safety and Health](#). [Accessed 24 July 2019].

Traditionally, mental health has not been considered an occupational health and safety issue; however, the connections between psychological stress, addiction, and even suicide are becoming increasingly evident to occupational health advocates and specialists.

Both work-related injuries and stress can lead to pathways of substance use and addiction. Opioids are a class of drugs that are commonly prescribed to alleviate pain, but these drugs are highly addictive. The connection between workplace stress, pain, and addiction is a priority focus area for WTP, especially as more studies show a correlation between risks of opioid-related deaths

(Photo courtesy of Demia Wright, NIEHS)



and industry and occupation.^{3,4} Many of the workers trained by WTP are among high-risk industries impacted by the [opioid epidemic](#); additionally, some workers trained by WTP are also witnessing higher rates of suicide and workplace violence.

Although stress is a normal condition of life, chronic stress can lead to negative impacts on a person's physical and emotional well-being.⁵ Research shows that stress is a well-known risk factor in the development of addiction, as well as vulnerability of relapse.⁶ Research also shows that chronic stress can have systemic effects on the neural circuitry in the brain; additionally, stress and addiction activate similar mechanisms and pathways in the brain.^{7,8,9}

Workshop participants gathered in small groups to discuss examples of workplace stressors and the impact that they can have on workers. Participants mentioned that [workplace violence](#) and bullying can be significant contributors to stress. Some workers experience issues with work and life balance – due to the nature of their work, they are required to split shifts, work overtime, or spend lots of time away from family.

- 3 Hawkins D, Roelofs C, Laing J, Davis L. [Opioid-related overdose deaths by industry and occupation-Massachusetts, 2011-2015](#). Am J Ind Med. 2019 Oct;62(10):815-825. doi: 10.1002/ajim.23029. Epub 2019 Jul 26. PubMed PMID: 31347714.
- 4 Harduar Morano L, Steege AL, Luckhaupt SE. [Occupational Patterns in Unintentional and Undetermined Drug-Involved and Opioid-Involved Overdose Deaths – United States, 2007-2012](#). MMWR Morb Mortal Wkly Rep 2018; 67:925-930.
- 5 [American Psychological Association. Understanding Chronic Stress](#). [Accessed 24 July 2019].
- 6 Sinha R. [Chronic stress, drug use, and vulnerability to addiction](#). Ann N Y Acad Sci. 2008 Oct; 1141:105-30. doi: 10.1196/annals.1441.030. Review. PubMed PMID: 18991954; PubMed Central PMCID: PMC2732004.
- 7 Al'Absi M. 2007. [Stress and Addiction: Biological and Psychological Mechanisms](#). Academic Press. [Accessed 25 July 2019].
- 8 McEwen BS. [Neurobiological and Systemic Effects of Chronic Stress](#). Chronic Stress (Thousand Oaks). 2017 Jan-Dec;1. doi: 10.1177/2470547017692328. Epub 2017 Apr 10. PubMed PMID: 28856337; PubMed Central PMCID: PMC5573220.
- 9 McEwen BS, Bowles NP, Gray JD, Hill MN, Hunter RG, Karatsoreos IN, Nasca C. [Mechanisms of stress in the brain](#). Nat Neurosci. 2015 Oct;18(10):1353-63. doi:10.1038/nn.4086. Epub 2015 Sep 25. Review. PubMed PMID: 26404710; PubMed Central PMCID: PMC4933289.

Diseases and Deaths of Despair

Diseases and deaths of despair is a relatively new phrase that was coined by Princeton economists Anne Case and Angus Deaton when they reported the [rising trend of morbidity and mortality in the 21st century due to drug abuse, alcohol, and suicide](#).

This is backed by data from the CDC, which reports a rise in deaths due to [drug abuse, alcohol, and suicide](#) over the past two decades. Recent [articles](#) suggest that the decline in U.S. life expectancy is largely due to increased prevalence of these diseases of despair.

Several underlying factors may contribute to the alarming increase in diseases and deaths of despair for workers, many of which were discussed during the WTP spring 2019 workshop.

Shortages in staffing or resources can also contribute to work-related stress, as the workers who remain onsite are often required to work overtime. Systems for payment and compensation can also bring about stressful conditions for workers and employers alike. Trauma is especially common for first responders and volunteers who are on the frontlines of disaster response, as well as for those who investigate workplace fatalities.

Further discussion led participants to identify key gaps in health and safety that may lead to work-related stress or injury, such as lack of employer commitment to implement safety procedures, inadequate hazard assessment and control, and lack of support systems, such as sick or family leave time.

“Impacts on mental health can last longer than most physical injuries,” said Ashlee Fitch, lead

investigator for WTP grantee the [Steelworkers Charitable and Educational Organization](#) (SCEO). She said cumulative or chronic stress can wear on workers over time, often suppressing important mental and physical functions of the body. Stressful working conditions increase the likelihood of fatigue, injury, and substance use.

According to Hughes, workers often deal with these issues in silence. In doing so, they face increased risk of diseases of despair. “We are here to break down the stigma and better understand the role that workplace factors play on stress and addiction,” he said.

Why Is WTP Getting Involved?

Through its broad network of grantees across the nation, WTP reaches thousands of workers in various occupations, including environmental cleanup, transportation, health care, and construction. Stress and fatigue are commonplace due to the hazardous and physically demanding nature of these jobs. Many of the same workers are witnessing firsthand the impact of opioids in the workplace. For example, first responders are responding to a significantly higher volume of calls due to overdose, leading to increased risk of exposure. Other workers, such as those in construction, are noticing how the pathway of opioid addiction commonly begins with prescriptions for work-related injuries.

Recent data also show that suicide rates are on the rise among U.S. workers. A CDC report showed that from 2000 to 2016, the suicide rate among working aged adults (16-64 years old) increased by 34%. Further analysis of standard occupational categories showed that the construction and extraction occupation group had the highest suicide rate for males; however, the arts, design,

entertainment, sports, and media occupation group had the highest suicide rate for females.¹⁰

WTP’s efforts to educate workers on issues related to mental health and stress are not new. In fact, WTP’s experience with training on these topics can be traced back to development of the [Responder and Community Resilience Training Tool](#) (also known as the Disaster Resiliency Training Tool) following the 2010 Deepwater Horizon oil spill. This tool was developed to deliver awareness-level training to workers and communities impacted by disasters, seeking to empower them to better recognize symptoms of disaster work-related stress, obtain support through various resources, and build resilience through stress reduction and coping strategies.

“The Disaster Resiliency Training Tool has been a hallmark of our program.”

—Chip Hughes, WTP Director

Many WTP partners and awardees have used the training tool to deliver resiliency training to workers, homeowners, and volunteers following both natural and man-made disasters. For example, Adam Gonzalez, Ph.D., founding director for the [Mind-Body Clinical Research Center](#) at Stony Brook University, and his colleagues are using the training tool to [better equip disaster responders](#) on how to recognize and cope with stress.

Not only are disaster responders at increased risk for PTSD and other health issues, but research shows that experiencing subsequent trauma and

¹⁰ Peterson, C, Stone DM, Marsh SM, Schumacher PK, Tiesman HM, McIntosh WL, Lokey CN, Trudeau AT, Bartholow B, Luo F. [Suicide Rates by Major Occupational Group – 17 States, 2012 and 2015](#). MMWR Morb Mortal Wkly Rep 2018; 67 (Erratum).

stress can exacerbate or reactivate symptoms. In 2017, Gonzalez and colleagues released a study that reported a significant association between PTSD in 9/11 responders and exposure to traumatic events related to Superstorm Sandy.¹¹

Gonzalez and his team continue to explore PTSD among disaster responders, and different methods for stress management and coping. He said preliminary data from a randomized controlled trial of Hurricane Sandy responders revealed promising data – those who received the disaster resiliency training showed moderate improvements in perceived stress management.

Education Coordinator Luis Vasquez from WTP grantee the [International Chemical Workers Union Council](#) (ICWUC) shared how critical [resiliency training](#) was in responding to Hurricane Maria in Puerto Rico.

Vasquez explained that Puerto Rico is roughly 3,500 square miles and the major metropolitan area is populated by nearly two million people. Hurricane

Maria destroyed many homes and thousands of people lost their loved ones. During recovery, electricity outages lasted in most communities for months. It took hours for people to get access to fuel, food, water, and other resources as assistance on the island was infrequent.

“How do you cope with these conditions? How do you deal with this going on for weeks or months at a time?” Vasquez asked. “We can’t just talk about the physical hazards; we need to talk about the mental hazards as well.”

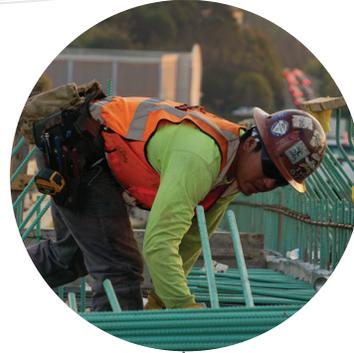
Altogether, these experiences serve as a foundational piece of WTP’s aim to tackle workplace stress and addiction through awareness-level training. Undoubtedly, these efforts fall under [theme two](#) of the [NIEHS 2018-2023 Strategic Plan](#), which aims to move from data, to knowledge, to action by responding to emerging health issues and engaging with affected communities.

11 Bromet EJ, Clouston S, Gonzalez A, Kotov R, Guerrero KM, Luft BJ. 2017. [Hurricane Sandy exposure and the mental health of World Trade Center responders](#). J Trauma Stress 30(2):107–114.

(Photo courtesy of Demia Wright, NIEHS)



Workplace Stress, Pain, and Substance Use Among Target Populations for WTP



Firefighters

- One cross-sectional study of firefighters reported a significant association between work-related injuries, burnout, and post-traumatic stress disorder (PTSD) symptoms.
- Another study showed that greater post-traumatic stress symptoms were associated with increased risk of firefighters reporting suicidal thoughts or attempts.
- A nationwide survey of firefighters led by the International Association of Fire Fighters (IAFF) and NBC showed that 19% have had thoughts of suicide and 27% have struggled with substance abuse.

Truck Drivers

- “PTSD is increasing in truck drivers,” said Peter Orris, M.D., chief of occupational and environmental medicine at the University of Illinois School of Public Health. “If left untreated, it can become chronic and may turn to self-medication.” As far back as twenty years ago, a study conducted by Orris and colleagues showed that truck drivers’ level of psychological distress was significantly higher than the U.S. working population. Orris is currently working on a follow-up study to further delineate these findings.
- A study surveying a random sample of truck drivers showed that 27% experienced depression.
- A 2018 systematic review and meta-analysis showed that the interplay between sleep problems and psychiatric stressors may lead to poorer health outcomes in truck drivers.

Construction Workers

- A statewide study in Massachusetts showed that the rate of opioid-related overdose deaths for construction workers was nearly six times the average rate for all workers in the state from 2011 to 2015.
- A pilot study showed a high prevalence of mental distress for construction workers; authors also reported an association between mental distress and increased frequency of pain and injuries in construction workers.

Preventing Harm, Promoting Wellness

With the pressing issues of stress and substance use noted in different industries, WTP seeks to explore meaningful ways to intervene and protect workers. This calls for strategies to not only prevent harmful injuries, but to provide support and promote holistic wellness.

Proactive Approaches to Minimize Risk

Cora Roelofs, Sc.D., an occupational health research scientist from the University of Massachusetts, Lowell, said that prevention and intervention strategies are needed to address workplace stress and addiction. She added that WTP's expertise and national reach offers many opportunities to embed these strategies in worker empowerment, education, and training.

Roelofs reiterated how different factors, such as long hours and lack of safety standards, can contribute to increased risk of work-related diseases of despair. She said that prevention at the source is most ideal, with efforts aimed at lessening the primary risk factors and stressors that lead to these issues. To illustrate this point, she presented a conceptual model of modifiers and mediators that can be used as a framework for preventing harm and promoting wellness in the workplace (Figure 1).

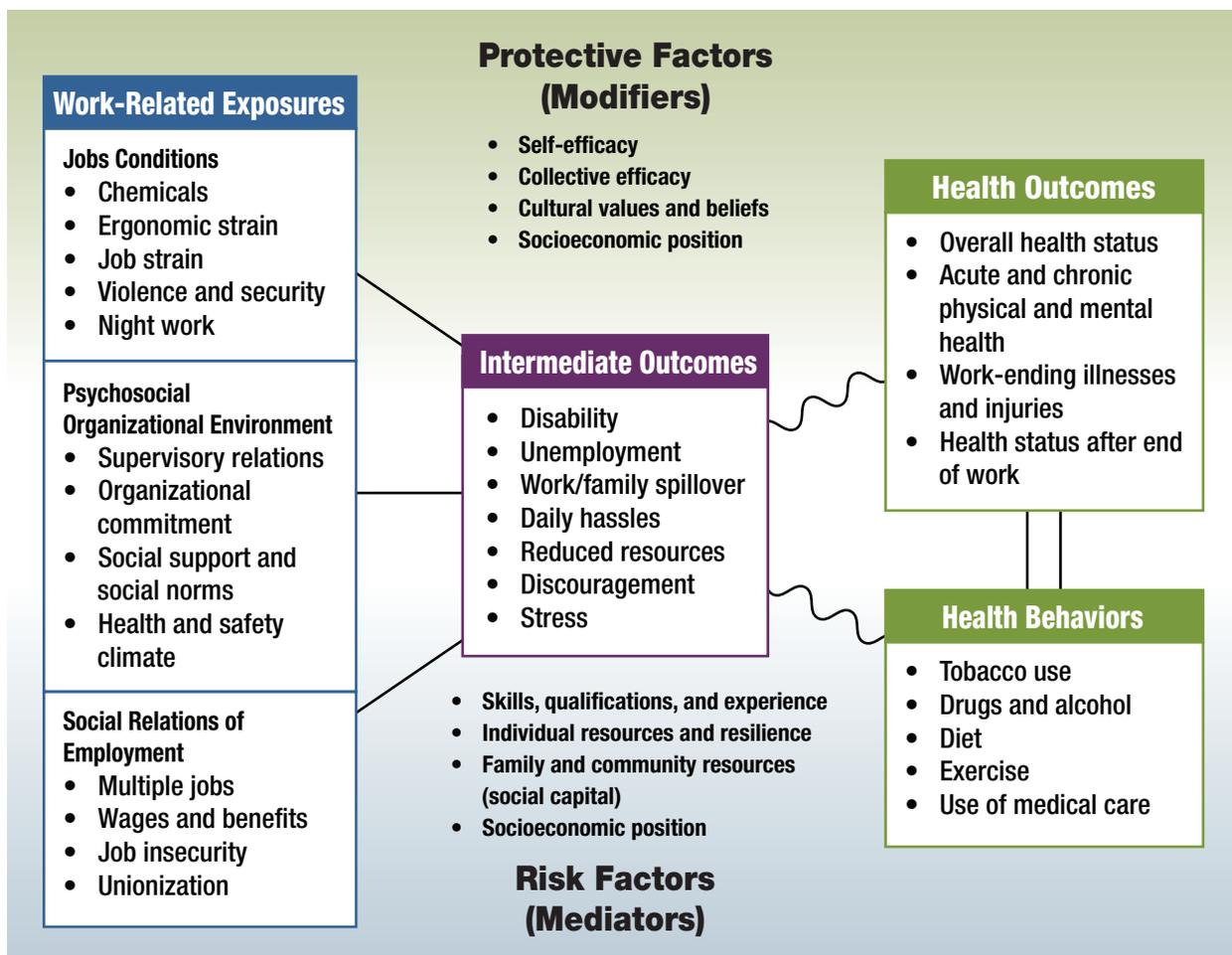


Figure 1: Adapted from Roelofs' presentation.

Safety efficacy refers to the knowledge, skills, and attitudes necessary to make and sustain positive change; these factors fall into different levels of influence, such as political, community, organizational, interpersonal, and intrapersonal. According to Roelofs, by determining the root issues and problems in knowledge, attitude, or skill set, we can more easily identify primary risk factors that contribute to stress and addiction.

Roelofs shared examples of primary, secondary, and tertiary prevention strategies that can be used to prevent opioid use, addiction, and overdose among high-risk worker groups. For example, at the primary level, more focus could be given to preventing acute or chronic injuries and pain. At the secondary level, health care providers could focus on providing workers with appropriate and timely pain management. At the tertiary level, employers could emphasize promotion of employee assistance and peer support programs.

“Our focus should be on creating a healthy workforce using a proactive instead of reactive approach.”

—Cora Roelofs, Ph.D.

During a small group activity, workshop participants also shared some practical primary, secondary, and tertiary prevention actions that can be taken to address workplace stress and addiction (see Appendix).

Gloria Workman, Ph.D., a clinical psychologist from the U.S. Department of Veterans Affairs (VA), Office of Mental Health and Suicide Prevention, shared the

need to minimize risk factors and boost protective factors, especially as it pertains to addressing the increase in suicide rates among veterans. Workman said the public health approach uses a systematic, scientific method for understanding the causes and preventing suicide: define and monitor the problem; identify risk and protective factors; disseminate successful strategies widely; and develop and test prevention strategies.

The VA has adopted a three-tiered approach for suicide prevention. In the first tier, prevention strategies are designed to reach the entire veteran population; however, in the second tier, strategies are designed to reach subgroups of the population that may be at increased risk. The third tier is designed to reach individual veterans who have been identified as having a high risk for suicidal behaviors.

She shared some examples of innovative practices for suicide prevention that fall into each of the tiers. She also shared more about the [National Strategy for Preventing Veteran Suicide](#), which aims to provide a framework for identifying priorities, organizing efforts, and contributing to a national focus on veteran suicide over the next decade. This strategy leverages the public health approach to suicide prevention and focuses on the importance of collaboration and urgency.

Model of Wellness and Peer Support

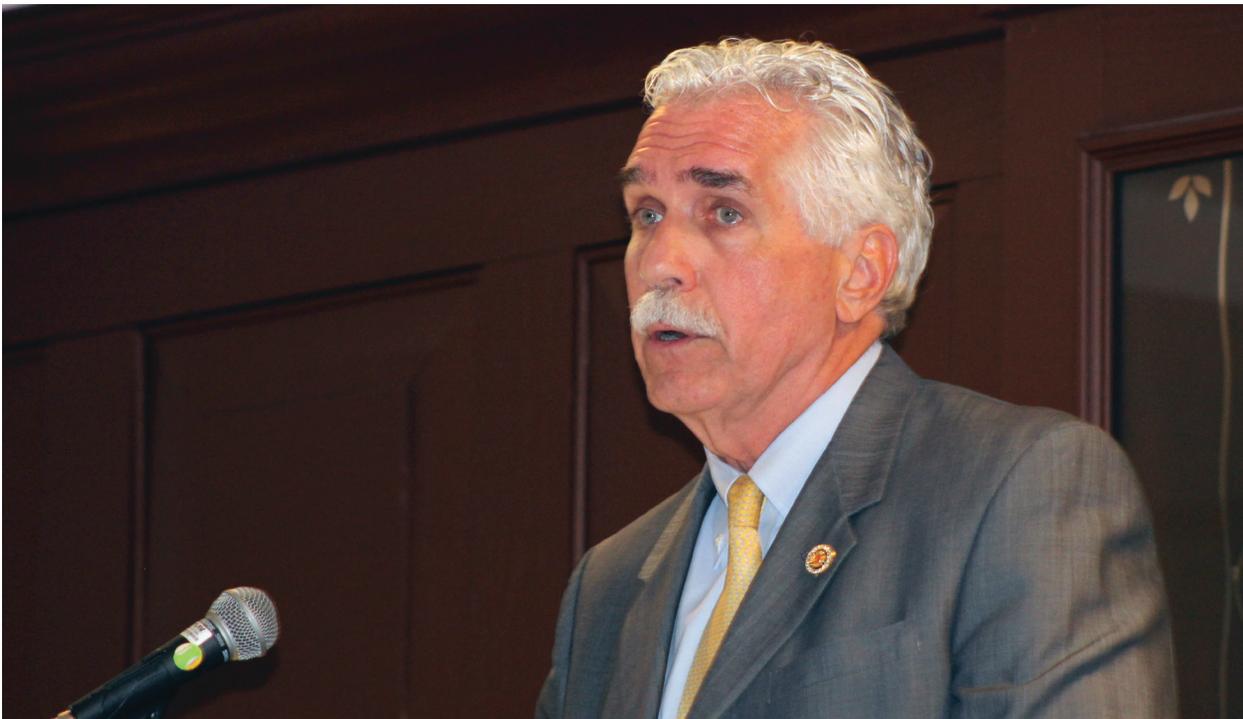
The IAFF provides a great model of promoting health and wellness in the workplace through various initiatives, including their [wellness fitness initiative](#) and behavioral health services.

The IAFF wellness fitness initiative, offered through IAFF and the International Association of Fire Chiefs Joint Labor Management, provides a centralized resource for fire departments throughout the U.S. and Canada. IAFF's behavioral health services include a number of initiatives, such as an online behavioral health awareness course and resiliency and peer support training programs.

Patrick Morrison, assistant general president for health, safety, and medicine for IAFF, explained that IAFF has moved away from the employer-driven critical incident stress management model and toward the peer support model.

Morrison said peer support is one firefighter helping another. Peers are educated on critical behavioral health problems that impact the fire service, and are trained to use active listening, assessment, and crisis intervention skills. As of March 2019, IAFF has provided peer support training to nearly 4,000 firefighters.

Overall, the peer support model is an effective intervention, helping to ensure workers have a



Before retiring in 2003, Morrison was a career firefighter for 21 years. He recalled how critical peer support was for him during his career.

“Mental and behavioral health are big issues for the fire service,” he said during the keynote address. “As a peer, one firefighter helps another and provides a trusted bridge to services that are needed.”

(Photo courtesy of Cleveland Smith, OAI, Inc.)

meaningful pathway for recovering from addiction and returning to work safely. Morrison noted that it is critical for peer support teams to have the oversight of clinicians, who can provide expertise on mental health, substance abuse, and treatment resources beyond the scope of a trained peer. IAFF uses specific criteria to screen clinicians and determine whether they would be a good fit within peer support teams. For IAFF, clinicians must not only understand the culture of the fire service, but they must also embrace the peer support model, be trained in evidence-based practices, and be accessible.

A unique aspect of IAFF's behavioral health services is the [Center of Excellence in Behavioral Health Treatment and Recovery](#), which offers [treatment and recovery support](#) for firefighters. The Center sits on approximately 15 acres of land in Upper Marlboro, Maryland, and includes four bunk houses that are designed to resemble a fire house.

Morrison said the Center has treated more than 750 firefighters since it was first formed in 2017 and continues to [rebuild and save lives](#). Of the 750 firefighters treated at the Center to date, 40% of them were admitted with a PTSD diagnosis while the other 60% were admitted with other clinical diagnoses, such as major depressive, substance use, and social anxiety disorders.

Moving forward, IAFF plans to expand their behavioral health training by offering both a clinicians' awareness course and peer recovery mentor course in 2020. There is also potential for a suicide training course in the future. IAFF is also working to build support for the [Helping Emergency Responders Overcome Act](#), a bill that was introduced in early 2019 by Ami Bera, representative for California's 7th Congressional District. Morrison said the bill would enable development of a system to collect suicide data on firefighters and other first responders; it would also allow grant funding to establish and enhance peer support programs.



Photo courtesy of Morrison's presentation.

Raising Awareness, Reducing Stigma, and Promoting Change

Many trainers and advocates have made it their life mission to provide peer support and address the stigma associated with addiction and other mental health issues in the workplace. Furthermore, advocates are boldly speaking out on changes needed in workplace culture to address these issues.

Awareness of Opioids and Lifestyle Issues

Steve Romero, health and safety representative for the [International Union of United Automobile, Aerospace, and Agricultural Workers of America](#) (UAW), shared a story about the tragic loss of his brother, Jeff, who died at the age of 48 after prolonged narcotics use.

“We are fighting a horrible disease. I know there is nothing I can do to bring back my brother, but by sharing his story, I can do something to help others.”

—Steve Romero

Romero explained that Jeff became addicted to opioids after facing athletic injuries along with the physical demands of working in the Ford manufacturing plant. Romero said that when it became too difficult for doctors to prescribe him more drugs, Jeff turned to the streets for access to opioids. A few years before he passed, he was taking nearly 20-30 OxyContin per day.

Romero and his sister, Tracy, UAW organizing director, later met Jonathan Rosen, an industrial hygienist with the [National Clearinghouse for Worker Safety and Health Training](#) (National Clearinghouse). Rosen encouraged them to share their experience with UAW.

Romero said the opioid epidemic has not only affected UAW members on the shop floor, but those in leadership positions as well. Rory Gamble, UAW international vice president and director of UAW’s Ford Department, lost his 21-year old granddaughter in early 2019 after she was exposed to something laced with fentanyl. Through a [new contract resolution](#), UAW is working with company partners to help families who are struggling with opioids.

Arturo Archila, a specialized emergency response trainer with the SCEO’s [Tony Mazzocchi Center](#), shared his perspective on mental health as a union right training. Archila said he has noticed the importance of engaging with marginalized communities and creating safe spaces for difficult conversations.

“To address stigma, we need to listen to the concerns expressed by the communities we serve,” he said. “We have to take action now in order to build capacity for the long-term.”

Kyle Zimmer, health and safety director for Local 478 with the [International Union of Operating Engineers](#) (IUOE), said the union's resolution now includes an emphasis on substance abuse, addiction, and peer support.

Their local Member Assistance Program (MAP) began in 2010 – after a power plant exploded, they started it for workers who experienced trauma. Since then, they have built the program from the bottom-up, ensuring that it is all-encompassing and adaptive to the lifestyle issues they notice within the union.

“Opioids are just a subset of the problem,” Zimmer said. “People want to learn about ways to cope with stress on the job.”

Now, IUOE is taking a head-on approach to address addiction, suicide, and other lifestyle issues. Zimmer said on April 29 – May 2, 2019, people representing more than 24 local unions came together and participated in an introductory lifestyle course at the training center in Crosby, Texas. The course covers a range of topics, including ethics, stress, addiction, bullying, and suicide prevention.

Zimmer and Ashley Dwyer, MAP coordinator, work together to ensure that the MAP addresses the needs of members and their families. A short video called “[The Road Home](#),” shares more about IUOE's MAP and how it is changing lives by providing a path to prevention, recovery, and support.



Photo courtesy of IUOE video, "The Road Home"

Reducing Stigma and Fostering Trainee Success

WTP grantee [OAI, Inc.](#) is using psychosocial interventions to normalize drug use and foster success for Chicago trainees within their [Environmental Career Worker Training Program](#) (ECWTP).

Like many other training organizations, OAI faces the dilemma of having a pool of individuals who want to receive training. They have developed a screening and intervention system to identify individuals who are most likely going to stick with the training program. Candidates are required to complete seven stages to be selected for inclusion.

Support is provided for all candidates, even those who don't pass the screening phase. Candidates that pass this phase are placed into a Power Skills Training course, which seeks to empower them as individuals. The curriculum discusses substance use and talks about the cost and benefits of drug abuse to normalize the issue. OAI staff focus on highlighting the benefits the trainee receives from using drugs but sees if the benefit can be substituted by another means. OAI staff also work to normalize the stigmatization of failure by talking about failures the trainee has faced, essentially creating a support group.

OAI staff use one-on-one meetings with trainees, which allows them to gather information about the individual, identify any psychosocial barriers, and develop an individual employment plan. This allows staff to build trust with trainees, and provides an opportunity to observe trainees' behavior.

Trainees also go through random drug screenings. A ten-panel drug screen test allows detection of multiple illegal drugs and prescription drugs that demonstrate the potential for abuse. If the trainee is comfortable, they will self-report and admit their usage to staff. For those trainees who test positive for drug use, a deeper conversation is held. For more help and support, trainees are then referred to local partner organizations that specialize in clinical assessment, detox for substance use disorders, mental health issues, or transitional housing.

This intervention proved to be effective for OAI ECWTP trainees between 2016 and 2018. At the program starting point with 78 trainees, 42% tested positive for an illegal substance and 2% tested positive for cocaine and ecstasy. At program completion with 64 trainees, only 9% tested positive for an illegal substance and 1% tested positive for PCP.

Treatment and Recovery is Possible

Stephanie Campbell from the [New York State Office of Alcoholism and Substance Abuse Services](#) described her work as director for the state's ombudsman project, the [Community Health Access to Addiction and Mental Healthcare Project \(CHAMP\)](#), and how it helps individuals and families get access to treatment and recovery resources. Campbell said the program was created in 2018 to address discrimination issues posed by insurance companies and treatment providers against people in need of treatment services. It is free, confidential,

and available to anyone regardless of the type of insurance they do or do not have.

"We are working hard to support families, because substance abuse is a family disease," she said. "It impacts families, both emotionally and financially."

Workshop participants listened intently as Campbell shared her own personal story of recovery, which led to her career and passion of advocating for people struggling with addiction.

"Heroin was the best antidote to my upbringing," Campbell said as she recalled her teenage and early adult years living on the streets of Saint Marks Place in New York. "I left home at the age of 15 and was living in and out of abandoned buildings. I didn't think I would make it to age 20."

Campbell said one day, everything changed for her when a woman showed compassion for the desperation and pain that she was facing. "It was the first time in my life that I had someone look at me, not with judgement, but with compassion. She led me to my first mutual aid meeting, and while there, they told us 'let us love you until you learn how to love yourself.'"

This is how stigma is addressed – by providing safe spaces for people to engage in uncomfortable conversations.

"I share this story because we do recover," Campbell said. "There are 23.5 million of us who are in recovery and we go on to live incredible lives."

Campbell explained the growth of the recovery movement that she has witnessed in her state, which has grown from three recovery community organizations to almost 50. Currently, there are over 1,000 peers trained to provide recovery support across the state.

Campbell said historically, recovery and harm reduction communities have been separated; now, she and many others are working to integrate the two communities because of their common goal towards advocacy. “We are all advocates,” said Campbell to the workshop participants. “So, if no one has thanked you today, I want to thank you right now.”

“What is happening in the recovery movement is something that is indescribably liberating,” Campbell said.

According to Campbell, New York is the first state in the nation to pass a recovery tax incentive, where employers can get up to a \$2,000 tax incentive.

Pushing Against Punitive Policies

Holly Hinds from [CrossPoint Partners](#) shared how punitive policies like zero-tolerance can create challenges in addressing opioids and other substance use issues in the workplace.

“The language of the zero-tolerance policy carries a negative tone. It implies that substance use disorder is a character failure, and that it is associated with undesirable behavior or criminal activity. This creates fear and stigma.”

—Holly Hinds

Hinds said the history of zero-tolerance policies can be traced back to the Vietnam War, when high rates of heroin addiction were noticed among returning service members. Originally, the military took a non-punitive approach with goals focused on treatment, rehabilitation, and retainment; unfortunately, addiction rates remained high. Later in 1981, a plane crashed on the USS Nimitz, a U.S. Navy aircraft carrier, killing 14 service members, injuring 48 others, and causing millions of dollars in property damage. An investigation showed that a portion of the crew members that were killed had used marijuana shortly before the crash occurred. The Department of Defense later instituted zero-tolerance policy, stating that if a service member tested positive for drugs, that they would be sent to court, martialled, and discharged. In 1986, the zero-tolerance policy was instituted for the entire civilian workforce; in 1988, Congress passed the Drugfree Workplace Act.

Hinds said currently, there is a movement to change the legal landscape – moving from zero-tolerance toward a fitness for duty model. Ultimately, this could have profound benefits in helping others view substance use disorder as a chronic, relapsing disease and prevent the loss of employees.

Addressing Challenges within the Medical Community

[Amy Liebman](#), director of environmental and occupational health for the [Migrant Clinicians Network](#) (MCN), shared some challenges of getting the medical community to think about workers.

Liebman said unfortunately, most clinicians and primary care providers only get a few hours of occupational health training. Some clinicians think occupational medicine is primarily about workers' compensation, but this is an adversarial system for both clinicians and patients. While

clinicians are wary of the legal system, forms, and potential delays, the patient fears job loss or worse outcomes.

There are also other challenges in getting primary care providers to address occupational health, pain management, and opioids. Most providers are uncomfortable with what they don't know and are unfamiliar with certain terminology. They usually refer out to pain management clinics rather than addressing pain directly. Also, given the nature of their jobs, they are often busy with little time to address patient concerns.

The MCN's [Environmental and Occupational Health Program](#) works to overcome these challenges through practical training, reporting, and providing resources and technical assistance. For example, MCN works with frontline providers to integrate a focus on environmental and occupational health into primary care. Screening questions are used for the primary care setting, which encourage providers to ask patients about their occupation and exposure to physical hazards.

Liebman described community health centers and community health workers (CHW) as a means to overcome challenges in primary care. She said community health centers can provide a primary care safety net for occupational health and safety. The CHW model is very similar to the peer support

model, in that lay people provide trusted sources of health information for their communities.

MCN partners with community health centers across the U.S. and Puerto Rico to establish [Centers of Excellence in Environmental and Occupational Health](#). According to Liebman, community health centers were the first responders in many Puerto Rico communities following Hurricane Maria. After the storm, the rates of suicide and opioid overdoses reportedly increased. Community health centers have been crucial in engaging communities, mobilizing efforts, organizing action, and implementing emergency preparedness on the island.

MCN also provides CHW training through a train-the-trainer model and an online [webinar series](#). Using grant support from the OSHA Susan Harwood Training Program, MCN was able to provide CHW training for more than 1,000 workers. MCN works to link clinicians with CHWs because they are most aware of what is happening in the community. MCN's CHW model has proven to be effective in increasing health and safety knowledge for several populations, such as immigrant dairy workers.¹²

12 Juárez-Carrillo PM, Liebman AK, Reyes IAC, Ninco Sánchez YV, Keifer MC. [Applying Learning Theory to Safety and Health Training for Hispanic Immigrant Dairy Workers](#). Health Promot Pract. 2017 Jul;18(4):505-515. doi: 10.1177/1524839916683668. Epub 2016 Dec 21. PubMed PMID: 28629275. [Accessed 11 September 2019]

Training Initiatives to Protect Workers

As a follow-up activity from the [fall 2018 workshop](#), WTP has been working with Rosen and the National Clearinghouse to develop and pilot a new opioid awareness-level training tool called, “Opioids and the Workplace: Prevention and Response.” This builds off WTP’s previously developed training tool, “[Prevention of Occupational Exposure to Fentanyl and Other Opioids](#).”

The new training tool is in a PowerPoint presentation format and includes aspects of the public health model of primary, secondary, and tertiary prevention. To keep participants engaged and promote discussion, it includes five small group activities. Participants should leave the training with a better understanding of the scope of the opioid crisis, the relationship between work and opioid use disorders, how to identify, prevent, and respond to exposure to opioids, and actions they can take in the workplace to prevent and respond to opioid misuse. Although it is designed to be a six-hour program, instructors are encouraged to modify and adapt the training to fit their organization’s needs.

To ensure the training tool meets the needs of the intended audience, WTP partnered with grantees to host community meetings and pilot trainings in West Virginia, New York, Washington, and Massachusetts. The pilot trainings took place during the summer of 2019, and a report is [forthcoming](#).

Pilot Training and Community Meeting in Massachusetts

The New England Consortium (TNEC) at the University of Massachusetts-Lowell was selected as one of four locations to [pilot WTP’s new training tool](#) focused on opioids in the workplace.

The pilot training took place in July 2019, where Rosen led participants through a six-hour program that included activities related to opioid addiction, prevention, and stigma, workplace actions, and other relevant topics.

Prior to the pilot training session, TNEC hosted a community meeting where participants shared their thoughts on opioids in the workplace and communities. Massachusetts is among the [top ten states](#) that has been hit the hardest by opioid-related drug overdose deaths in recent years. In 2017 alone, the state’s rate of drug overdose deaths was two times higher than the national rate, where the greatest increase in deaths was seen in cases that involved synthetic opioids.

[Jodi Sugerman-Brozan](#), executive director for [Massachusetts Coalition for Occupational Safety and Health](#) (MassCOSH), described their development of an opioid awareness curriculum and the effectiveness of using a train-the-trainer (TTT) model to deliver the training.

Each year, in conjunction with Worker Memorial Day, MassCOSH releases a [report](#) identifying trends in workplace injuries and fatalities. Over the past two years, they discovered a substantial jump in deaths resulting from suicide and overdoses on the job.

These alarming findings prompted MassCOSH to take action and develop an awareness-level opioid training curriculum to protect workers. This initiated their [Opioid Awareness Peer Training Pilot](#), with goals to educate workers about risk of opioid addiction, empower workers to advocate for themselves, and inform workers about addiction resources available.

MassCOSH partnered with three unions – the [International Brotherhood of Teamsters](#) (Local 25), [Ironworkers](#) (Local 7), and the [Massachusetts Nurses Association](#) – to deliver training pilots using a TTT approach. Prior to the training, MassCOSH conducted a needs assessment in order to

customize the training and support provided to each union. They then conducted one TTT session for two peer leaders from each site, which included training on [motivational interviewing](#) skills. Additional technical assistance and support was provided to each peer leader to conduct two trainings at their respective sites.

Throughout this process, MassCOSH learned that each union has specific needs, but there are some commonalities in how to best address opioids awareness across the sites. They learned that health and safety committees are key in preventing injury and illness and that strategies to empower workers to be their own advocates are critical. They also learned that ongoing emotional support is critical for trainers and trainees. There is a need to ensure pathways back to work are supportive for those who have experienced injuries or are in recovery.

In moving forward, MassCOSH hopes to incorporate the pilot training into their [Immigrant Worker Center](#) and [Teens Lead @ Work](#) programs. They also have plans to partner with the Harvard Total Worker Health Center to interview immigrant workers on their experiences with pain and pain management.

Conclusion: Moving the Prevention Framework Forward

Workshop participants shared reflections and challenges, as well as ideas on how to move the framework of prevention forward to address stress, substance use, and addiction in the workplace.

The message is clear – there is a connection between psychological stress, substance use, and addiction among workers. Just as with physical hazards, mental and behavioral issues are important in addressing a worker’s health and safety. These issues can affect everyone, especially workers’ families, colleagues, and communities.

Unfortunately, current efforts for combatting the opioid crisis fail to focus on the workplace. To address this issue, WTP grantees and partners must educate and mobilize the community of health care professionals, employers, unions, government officials, and other stakeholders to help them develop programs that prevent occupational injury, illness, and stress that can lead to opioid use, misuse, and addiction. This transformation can help create workplace environments and programs that can act as gateways to treatment and recovery for workers who need it.

Some of the greatest challenges WTP grantees and partners face in addressing these topics include staffing issues and lack of time to incorporate opioids into existing training. Other challenges include feeling inadequately prepared to facilitate training on this topic. Employers’ knowledge and perception can also present barriers in delivering training on these topics. While some employers

understand there is a connection between workplace injury and addiction, others do not.

Employers, managers, unions, and organizations should adopt components of wellness and mental health resiliency into their workplace policies to ensure workers are healthy and safe. One way for employers to do this is by integrating mental health resiliency as part of workers’ annual training requirements; another way is by establishing safe spaces and peer programs that workers can refer to when seeking access to recovery and treatment. Treatment should be swift and include a variety of options that suit individual needs, because one size does not fit all.

Eliminating stigma and reforming punitive workplace programs are key steps WTP grantees and partners can take to encourage workers with substance use disorders to get help. Educating workers, employers, and communities that addiction is a relapsing brain disease and not a moral failure is a key task. Sharing stories is an effective strategy for combatting stigma.

The narrative surrounding these issues in media, health care, and the workplace tends to add stigma, and often misconstrues the connection between addiction and work-related injuries, trauma, and other workplace hazards. In order to better educate workers, employers, and other

stakeholders on these issues, the narrative needs to change.

“As a program, we can change the narrative,” said Fitch. “We know what the headlines say now, but what should they say in the future?”

Participants gathered in small groups to create headlines that they would like to see in the future, such as:

- “Opioid epidemic eliminated.”
- “Re-engineering the workplace: Holistic approaches make the workplace safer.”
- “New programs radically reduce substance use and addiction: Recovery possible.”

- “Congress mandates ergonomic standards.”
- “Medicare for all passes.”
- “Collective bargaining rights restored.”
- “As unionization rates reach 100%, the pain ends.”

“The lessons that we tell others are sometimes the ones we’ve have to learn ourselves,” said Allan McDougall, coordinator for the United Steelworkers Emergency Response Team, as he reflected on his own personal journey to recovery. “Recovery doesn’t give you everything, but it does give you a second chance.”



(Photo courtesy of Demia Wright, NIEHS)

Appendix

Examples of primary, secondary, and tertiary prevention actions that can be taken to address stress and addiction in the workplace.

Primary	Secondary	Tertiary
Incorporate injury, illness, and hazard prevention programs (e.g., ergonomics, fall protection)	Use alternative pain management approaches	Strengthen organizational resiliency
Identify and mitigate job stressors (e.g., overtime, understaffing, etc.)	Reduce organizational and individual stigma	Promote reform of zero-tolerance policies
Modify workloads and use hierarchy of controls	Modify presumptions of impairment for positive tests with injuries and accidents	Increase access to management, counseling, EAPs, and professional services
Promote self-efficacy of worker, including time management, work-life balance, coping mechanisms	Improve access to mental health resources	Provide access to peer support, recovery, and addiction treatment programs
Provide access to self-care and wellness programs	Educate and train leadership (employers and management) about risk of addiction to opioids	Provide insurance resources, both short- and long-term
Protect workers potentially exposed to fentanyl during clean up or when responding to overdoses	Provide education and resources during job orientation process, support, and follow up as refresher module(s)	Use evidence-based treatment
Establish reasonable work expectations and improve work life balance	Offer awareness and resiliency training	
Encourage supportive workplace culture of togetherness and safety	Provide suicide prevention information and training	
Establish joint labor management health and safety committees	Provide education about appropriate administration of naloxone (Narcan)	
	Educate health care providers and patients about risk of addiction to opioids	



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