Using *Total Worker Health*® Principles to Advance Worker Safety and Well-Being

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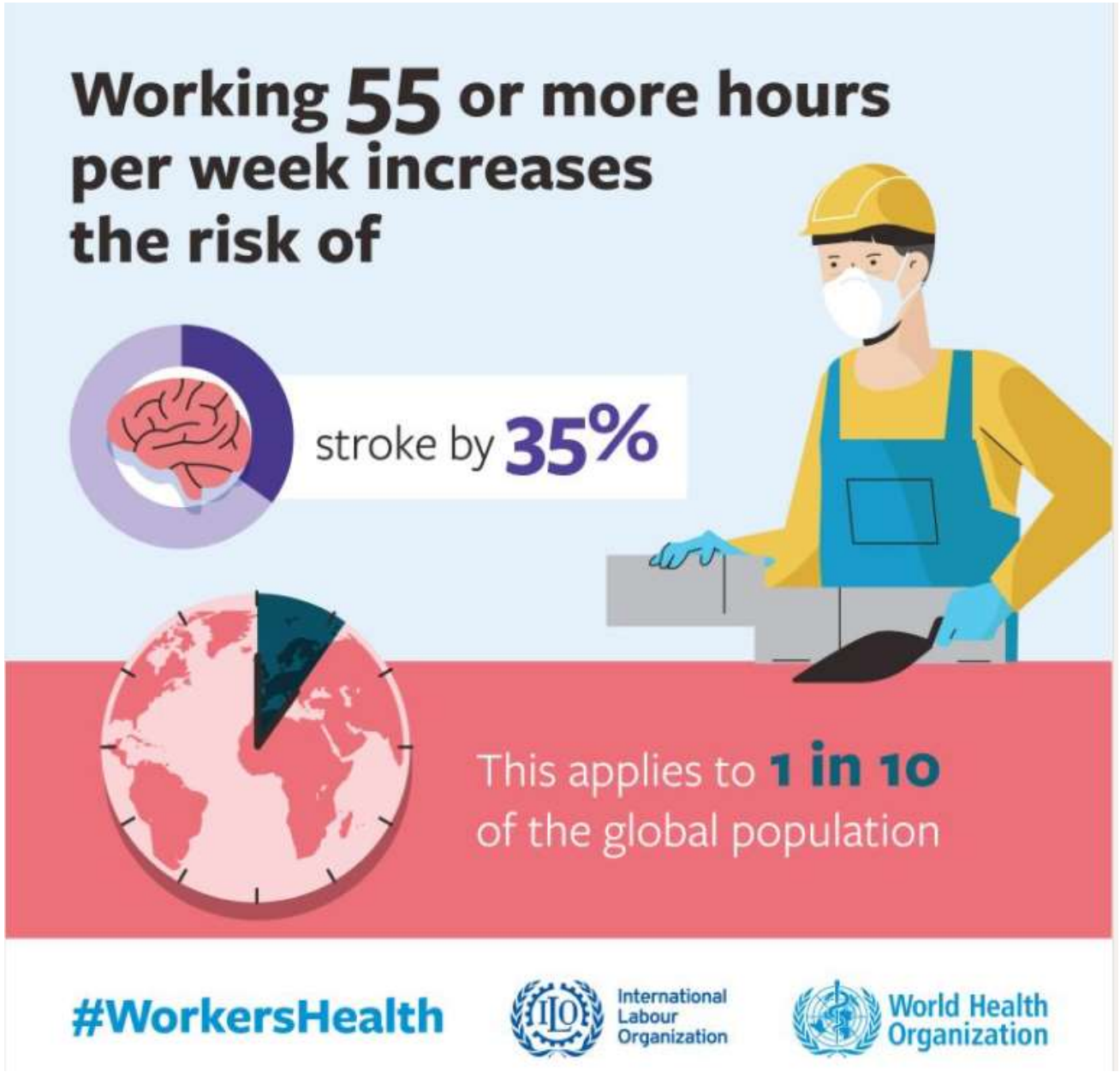
California Industrial Hygiene Council (CIHC) Virtual Annual March Summit 2022
March 16, 2022
8:15 – 9:30 am PDT

Photo Credit: Jawad Qasrawi/Hazards Magazine, 22 July 2014



https://www.who.int/news/item/16-09-2021-who-ilo-almost-2-million-people-die-from-work-related-causes-each-year

"Work is getting tougher, longer and harder to do. People are working more hours because they're scared they won't get a promotion, or will lose their job. Doing more with less is at the heart of corporate culture, and that's not how people do the best work…

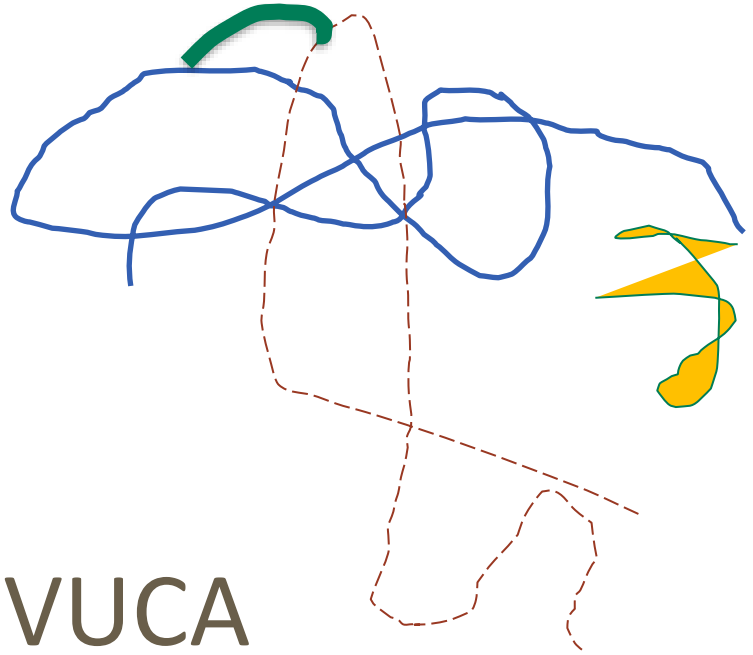
…There's this gigantic self-care industry out there all focused on how to cope with that stress; but to prevent, or reduce, or eliminate burnout, it's not about fixing the people. It's about fixing the job."

--Christina Maslach. Interdisciplinary Healthy Workplaces Center

https://www.bbc.com/worklife/article/20210426-why-we-may-be-measuring-burnout-all-wrong

Work as we *knew* it

21st Century Work



VUCA

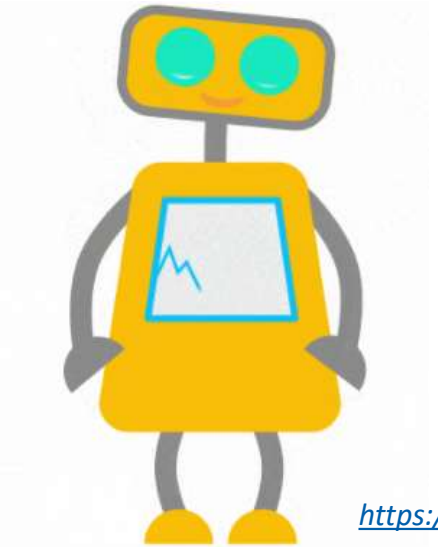
Future of Work

- Work
  - Artificial intelligence
  - Technologies
  - Robotics
- Workforce
  - Demographics
  - Economic security
  - Skills
- Workplace
  - Organizational design
  - Technological job displacement
  - Work arrangements

https://www.cdc.gov/niosh/topics/future-of-work/default.html

Technological Job Displacement

https://www.reuters.com/article/us-usa-tech-3d-printed-house-idUSKBN2AG2CA. Feb 16, 2021



https://woebothealth.com/products-pipeline

Painting sold for $432,000 in 2018
Portrait of Edmond de Belamy, from La Famille de Belamy (2018). Courtesy of Christie's Images Ltd.

Chang CC, Tamers SL, Swanson N. The Role of Technological Job Displacement in the Future of Work. NIOSH Science Blog, Feb 15, 2022.

Work and worker health in the post-pandemic world: a public health perspective

- Social-political-economic environment
- Employment and labor patterns
- Enterprise
- Worker

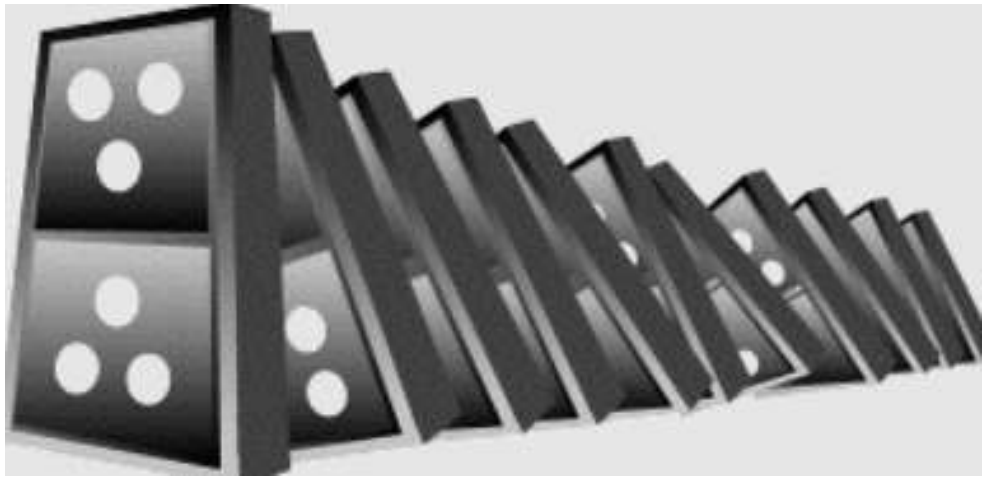
Peters SE, Dennerlein JT. Wagner GR, Sorensen G. Work and worker health in the post-pandemic world: a public health perspective. *The Lancet Public Health*. 2022;7(2):e188-e194.

Total Worker Health®

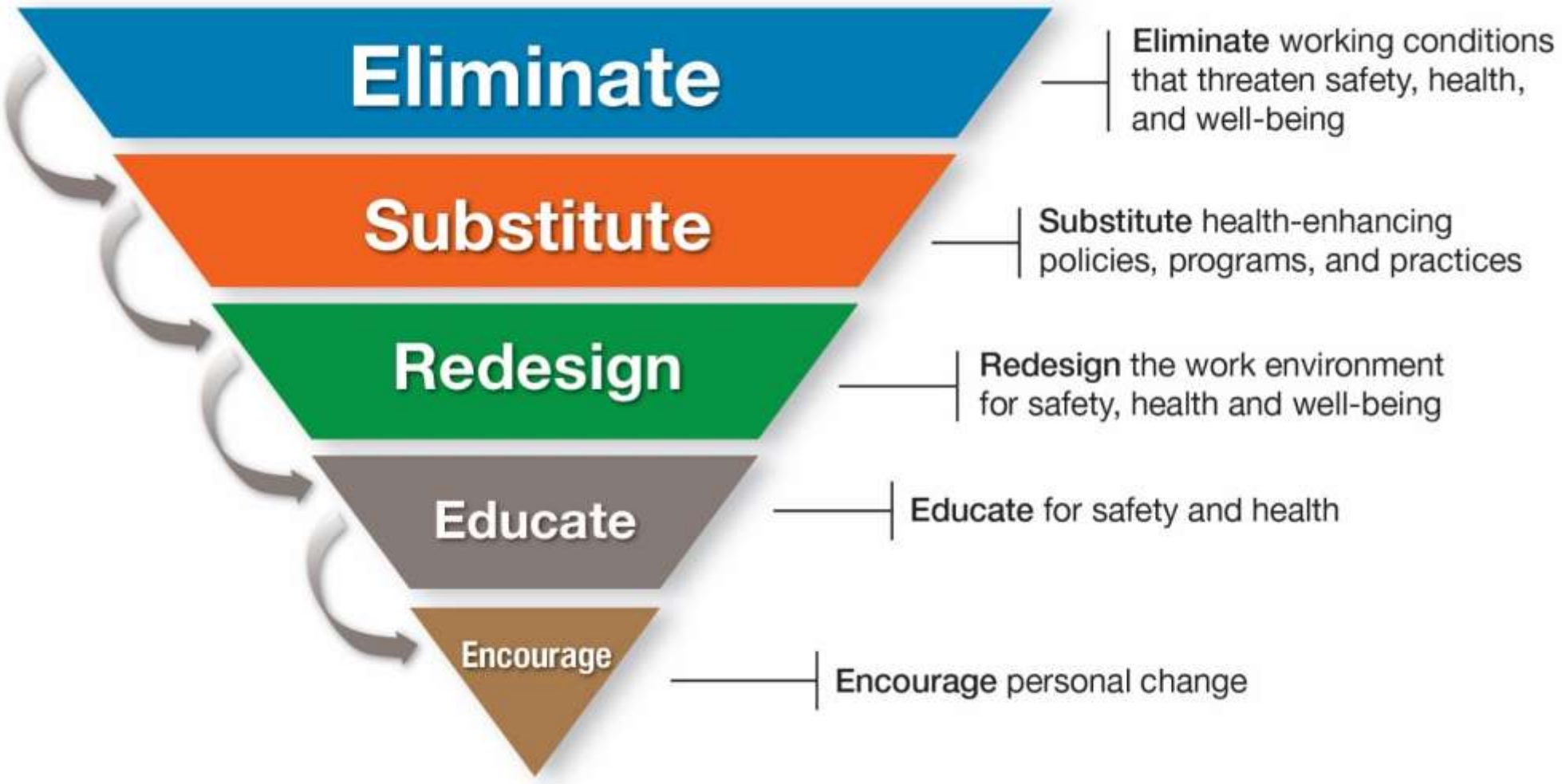
Policies, programs, and practices that integrate
Protection from work-related safety and health hazards with promotion of injury and illness **prevention** efforts to advance **worker well-being**

Other Models

- Root cause analysis
- Macro- and cognitive ergonomics
- Systems engineering
- Health in all policies
- Socio-ecologic model
- Social determinants of health



Hierarchy of Controls Applied to TWH



Safe staffing

Physical environment

Example of Integrated Approach: Sleep and Fatigue

Health-supportive policies

Sleep education

Example of Integrated Approach: Musculoskeletal Disease

Flexibility & control

Psychosocial health

Ergonomic consultations

Self-management strategies

Total Worker Health® Key Tenets

What it is…

- √ A *Total Worker Health* (TWH) approach examines how the work organization and work itself can holistically influence worker safety, health, and well-being
- √ TWH embraces voluntary, participatory interventions
- √ TWH programs protect workers' rights and privacy

What it is NOT…

- × TWH does not "blame the worker"
- × TWH is not consistent with workplace policies that discriminate against or penalize workers for their individual health conditions or create disincentives for improving health
- × TWH is not a wellness/health promotion program that has been implemented without simultaneously providing safe and healthful working conditions

https://www.cdc.gov/niosh/twh/faq.html

Worker Well-Being

Chari R, Chang CC, Sauter S, Petrun Sayers EL, et. al. Expanding The Paradigm of Occupational Safety And Health: A New Framework For Worker Well-Being. https://journals.lww.com/joem/Abstract/publishahead/Expanding_The_Paradigm_of_Occupational_Safety_And.98687.aspx

Workplace Physical Environment & Safety Climate

Workplace Policies and Culture

- Paid sick leave
  - Medical care
  - Recuperation
  - Infections

Psychological Health and Safety Management System

- Workplace Factors:
  - Job demands and requirements of effort
  - Job control or influence
  - Support
  - Reward
  - Fairness
- Minimum human needs and mental health at work:
  - Physical & psychological safety
  - Self-worth, esteem, social justice
  - Self-efficacy, accomplishment, autonomy
  - Belonging

ICS › 13 › 13.100

ISO 45003:2021

Occupational health and safety management — Psychological health and safety at work — Guidelines for managing psychosocial risks

This standard is available for free in read-only format

ABSTRACT

PREVIEW

This document gives guidelines for managing psychosocial risk within an occupational health and safety (OH&S) management system based on ISO 45001. It enables organizations to prevent work-related injury and ill health of their workers and other interested parties, and to promote well-being at work.

https://www.iso.org/standard/64283.html

Worker Evaluation & Experience

- Supportive supervision
  - Sleep
  - Job satisfaction
  - Well-being
  - Physical health
- Skill utilization - Employee health
- Job insecurity – Engagement

How can my work improve my well-being?

Do I feel safe at my workplace?

http://www.ilo.org/safework/areasofwork/gender-and-occupational-safety-and-health/lang--en/index.htm

Am I being heard and treated fairly at work?

Does this job help make me healthier?

Does my boss care if I am healthy and safe?

Health Status

- Insomnia
- Sleepy at Work
- Cognitive Functioning & Work Limitations
- Work-related Injury, Injury Consequence

Home, Community, & Society

- Family members impacted by worker injuries
  - More likely for hospitalization, musculoskeletal disease
- Life satisfaction -> occupational injury
- Financial insecurity
- Emotion and social support

NIOSH WellBQ (Worker Well-Being Questionnaire)

- Free for public use
- Accumulate and share data
- Create benchmarks (occupations, industries, workforces)
- Further knowledge about worker well-being

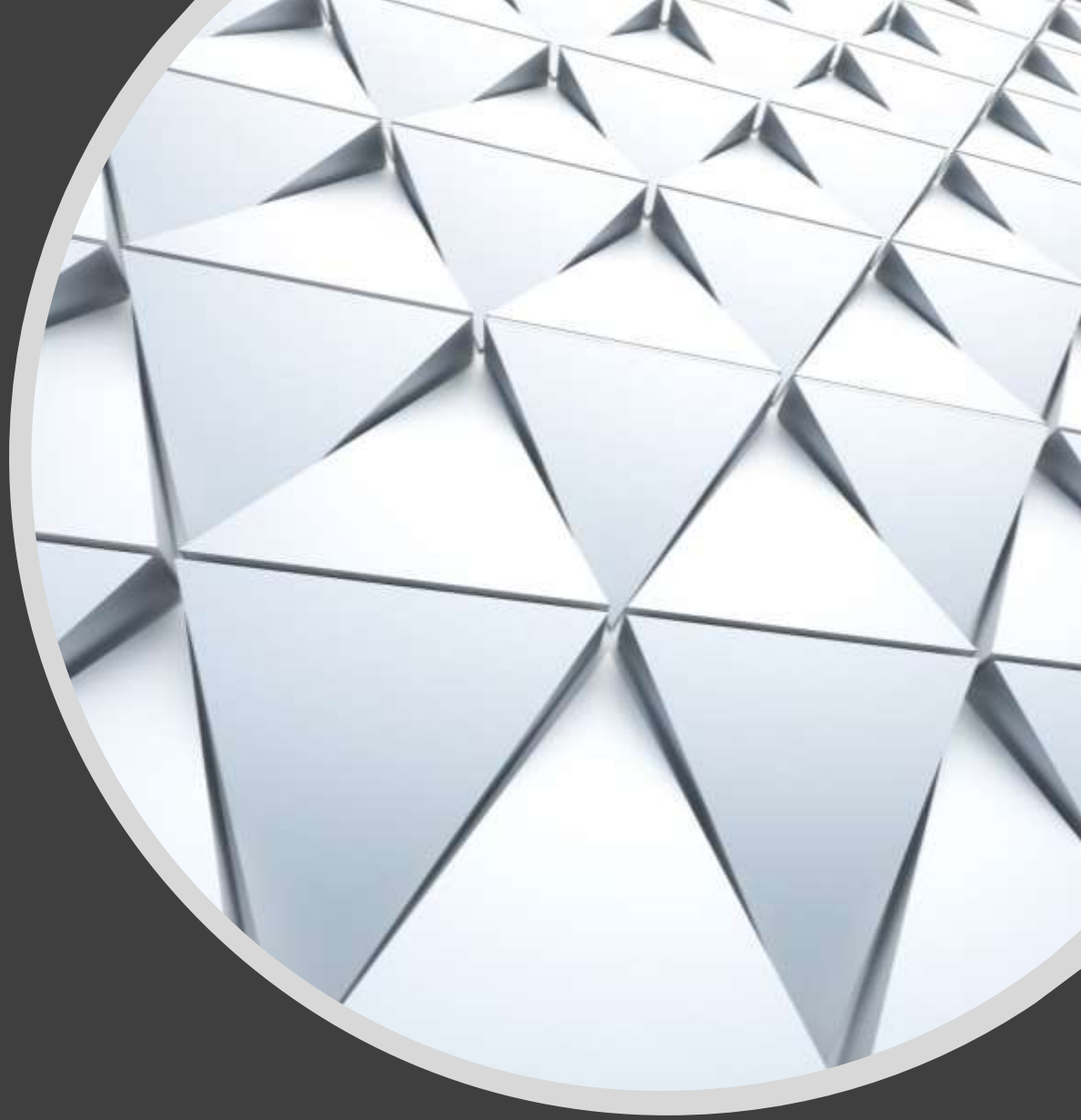
https://www.cdc.gov/niosh/twh/wellbq/default.html

Essential Elements for Advancing Worker Safety, Health, and Well-Being
https://www.cdc.gov/niosh/docs/2017-112/default.html

Substance Use and Work

Exploring the Link: Opioid Misuse and Work

Lack of employment	Insecure employment, new employment arrangements	Hazardous work and increased risk of work-related injury
Wages, working conditions that can predispose to chronic health problems or pain	Lack of benefits/paid sick leave	Industry/occupational, cultural, and geographic differences



Lifetime Odds of Dying for Selected Causes in the US, 2019

Cause of Death	Odds of Dying
Heart disease	1 in 6
Cancer	1 in 7
Chronic lower respiratory disease	1 in 27
Suicide	1 in 88
Opioid overdose	1 in 92
Fall	1 in 106
Motor-vehicle crash	1 in 107
Gun assault	1 in 289
Pedestrian Incident	1 in 543
Motorcyclist	1 in 899

Odds of Dying - Injury Facts (nsc.org)

Source: National Safety Council

Illicit Drug Use and Overdose Deaths Among US Workers

- According to the National Survey of Drug Use and Health, in 2019, an estimated ***3.8%*** of respondents aged 18 years or older reported illicit drug use in the previous year. An estimated ***63.5%*** of these self-reported users were employed full- or part-time.
- In 2019, ***93%*** of the 70,630 US drug overdose deaths occurred among the working age population, persons aged 15-64 years.
- In 2019, the Bureau of Labor Statistics reported that overdose deaths at work from non-medical use of drugs or alcohol accounted for ***5.8%*** of occupational injury deaths, the seventh year in a row that this percentage increased. (In 2013, this percentage was ***1.8%***.)

https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetTabsSect1pe2019.htm#tab1-60b;
https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetTabsSect1pe2019.htm#tab1-60a;
https://www.cdc.gov/niosh/topics/opioids/data.html

Substance Use Disorders in Workers

- ***1 in 12*** workers has an untreated substance use disorders (SUDs).
- Construction, mining, and service occupations have the highest rates of alcohol and other drug use disorders – and jobs in these industries are often *safety-sensitive* positions.
  - Education, healthcare, and professional and protective services jobs have the lowest.
- Industries with higher numbers of workers with alcohol use disorders also have more workers with illicit drug, pain medication, and marijuana use disorders.

https://www.prnewswire.com/news-releases/new-analysis-employers-stand-to-save-an-average-of-8-500-for-supporting-each-employee-in-recovery-from-a-substance-use-disorder-301183912.html

Prescription Drug Misuse and Employers

- Over ***70%*** of 501 HR decision makers said their workplace has been impacted by prescription drugs.
- Only ***19%*** of respondents felt extremely well prepared to deal prescription drug misuse.
- Almost ***50%*** were very confident they had appropriate HR policies and resources to deal with prescription drug misuse or abuse.
- ***70%*** would return an employee to work after the employee receives appropriate treatment.

https://www.nsc.org/getmedia/ee37d83e-486c-4869-b63d-275413fa767d/national-employer-drug-survey-results.pdf

Stigma Around SUD Remains Pervasive Among Public—and Practitioners

The Shatterproof Addiction Stigma Index (SASI) was conceived to assess attitudes about substance use and those who engage in substance use.

Almost 3 in 4 respondents find someone currently using substances to be untrustworthy

One in three are unwilling to move next door to a person currently using substances or have them as a personal friend

Over half of respondents indicated that a person's SUD is caused by their own bad character or lack of moral strength

3 in 4 respondents do not believe that a person with a SUD is experiencing a chronic medical illness

Source: https://www.shatterproof.org/our-work/ending-addiction-stigma/shatterproof-addiction-stigma-Index

The Cost of Substance Use Disorders

- The average employer pays ***$2,918*** in health insurance premiums or self-pay annually for workers without SUDs. For those with SUDs, those costs are approximately ***$4,770*** per worker, and ***$3,961*** per worker in recovery.

- Additional annual average costs to an employer for each worker with an untreated SUDs have ***risen 30% in just three years***.

- Employers spend an average of ***$8,817*** annually on each employee with an untreated SUD.

https://www.prnewswire.com/news-releases/new-analysis-employers-stand-to-save-an-average-of-8-500-for-supporting-each-employee-in-recovery-from-a-substance-use-disorder-301183912.html

Workers in Recovery

- Each employee who recovers from a SUD saves a company over ***$8,500*** on average.
  - Treatment prompted or mandated by an employer is more successful than treatment initiated or encouraged by friends or family members.

- Workers who are actively in recovery help employers avoid ***$8,175*** in turnover, replacement and healthcare costs.

https://www.prnewswire.com/news-releases/new-analysis-employers-stand-to-save-an-average-of-8-500-for-supporting-each-employee-in-recovery-from-a-substance-use-disorder-301183912.html
Weisner et al. (2009). Substance use, symptoms, and employment outcomes of persons with a workplace mandate for chemical dependency treatment. Psychiatric Services, 60(5), 646-654. https://ps.psychiatryonline.org/doi/pdf/10.1176/ps.2009.60.5.646

Impact of COVID-19 on Substance Misuse and Substance Use Disorders

During late June, 40% of U.S. adults reported struggling with mental health or substance use*

*Based on a survey of U.S. adults aged ≥18 years during June 24-30, 2020

†In the 30 days prior to survey

For stress and coping strategies: **bit.ly/dailylifecoping**

Effects of COVID-19 on Substance Misuse and Substance Use Disorders

- Every state has reported increases in opioid-related mortality as well as ongoing concerns for those with a mental illness or substance use disorder (SUD)
- **"the perfect storm for folks who are substance dependent"**
  - https://blogs.cdc.gov/niosh-science-blog/2020/09/14/covid-19-and-oud/
- SAMHSA disaster distress helpline saw a nearly 900% increase in calls early in the pandemic compared to the same period in 2019
- Social distancing measures may cause individuals with SUD to be more isolated, lack social support, and have no one around to administer naloxone during an overdose
  - Hindered ability of individuals with SUD to access services such as counseling, therapy, and MAT

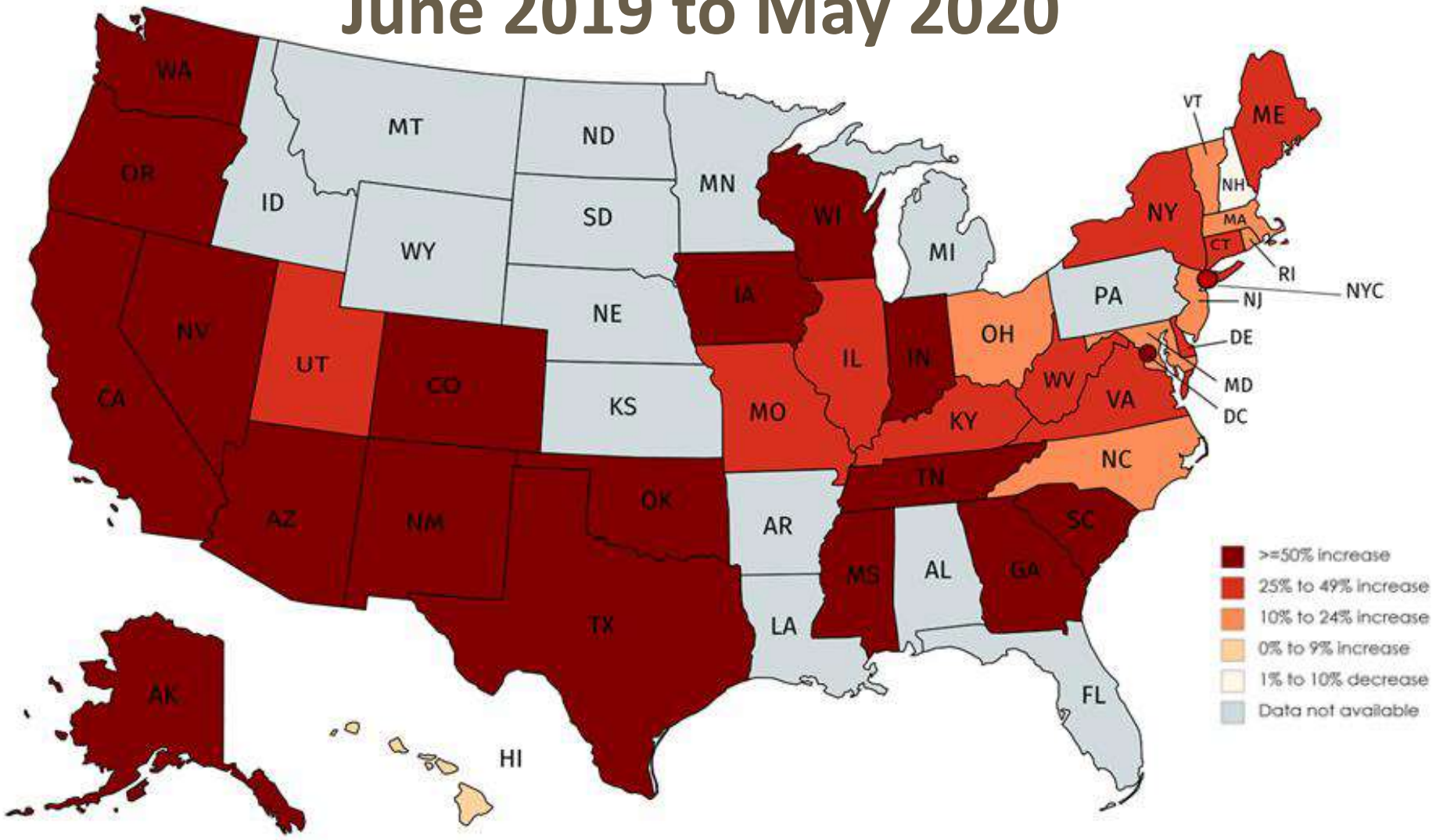
Sources: https://www.ama-assn.org/system/files/2020-06/issue-brief-increases-in-opioid-related-overdose.pdf
https://www.nationalgeographic.com/science/2020/04/coronavirus-pandemic-may-fuel-the-next-wave-of-the-opioid-crisis/

Increase in Fatal Drug Overdoses Across the United States Driven by Synthetic Opioids Before and During the COVID-19 Pandemic

- The recent increase in drug overdose mortality began in 2019, prior to the declaration of the COVID-19 National Emergency in the United States in March 2020, and has continued.
- The increases in drug overdose deaths appear to have accelerated during the COVID-19 pandemic.
- **Synthetic opioids** are the primary driver of the increases in overdose deaths. State and local health department reports indicate that the increase in synthetic opioid-involved overdoses is primarily linked to illicitly manufactured **fentanyl**.

Sources: https://emergency.cdc.gov/han/2020/pdf/CDC-HAN-00438.pdf

Changes in Fatal Drug Overdoses by State from June 2019 to May 2020



https://emergency.cdc.gov/han/2020/pdf/CDC-HAN-00438.pdf, https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

Overdose Deaths Reached Record High as the Pandemic Spread

More than 100,000 Americans died from drug overdoses in the yearlong period ending in April, government researchers said.

A memorial service in Baltimore last year for a man who died of an overdose. Overdose deaths have more than doubled since 2015. Andrew Mangum for The New York Times

- Up 30% from prior year; more than the toll of car crashes and gun fatalities combined
- Largely a result of lost access to treatment, rising mental health problems, and wider availability of dangerously potent street drugs
- About 70% of deaths were among men between the ages of 25 and 54

"It has to be easier to get treatment than to buy a bag of dope."

Source: https://www.nytimes.com/2021/11/17/health/drug-overdoses-fentanyl-deaths.html

NIOSH Efforts to Address Substance Misuse and Substance Use Disorders

A worker's exposure to opioids can take many forms. Work itself can result in painful injuries for which an opioid can be prescribed by a physician. Chronic opioid use can lead to an Opioid Use Disorder—a treatable brain condition. Emergency workers can be exposed to opioids when responding to an opioid overdose or working to detect and decontaminate an affected area. NIOSH has collected data, conducted research and field investigations, and is committed to the principles of *Total Worker Health*® to better understand the crisis and recommend policies, programs, and practices to help workers and employers face this challenge together.

-NIOSH Director, John Howard, M.D.

Using Total Worker Health® Strategies to Combat Opioid Harms

….policies, programs, and practices that
integrate protection from work-related safety & health hazards
with promotion of injury and illness prevention efforts
to advance worker well-being.

Why does it matter for opioid use and misuse?

- Effects of opioid use and misuse not isolated to work or home environments
- Prevention and intervention require comprehensive, integrated solutions
- Coordinated “systems approaches” are vital, meet the needs of workers more completely, and are more efficient

Sources:
https://www.cdc.gov/niosh/topics/opioids/default.html
https://www.cdc.gov/niosh/twh/totalhealth.html

Using Naloxone to Reverse Opioid Overdose in the Workplace: Information for Employers and Workers

Using Naloxone to Reverse Opioid Overdose in the Workplace: Information for Employers and Workers

Introduction

Opioid misuse and overdose deaths from opioids are serious health issues in the United States. Overdose deaths involving prescription and illicit opioids doubled from 2010 to 2016, with more than 42,000 deaths in 2016 [CDC 2016a]. Provisional data show that there were more than 49,000 opioid overdose deaths in 2017 [CDC 2018a]. In October 2017, the President declared the opioid overdose epidemic to be a public health emergency.

Naloxone is a very effective drug for reversing opioid overdoses. Police officers, emergency medical services providers, and non-emergency professional responders carry the drug for that purpose. The Surgeon General of the United States is also urging others who may encounter people at risk for opioid overdose to have naloxone available and to learn how to use it to save lives [USSG 2018].

The National Institute for Occupational Safety and Health (NIOSH), part of the Centers for Disease Control and Prevention (CDC), developed this information to help employers and workers understand the risk of opioid overdose and help them decide if they should establish a workplace naloxone availability and use program.

Background

What are opioids?

Opioids include three categories of pain-relieving drugs: (1) natural opioids (also called opiates) which are derived from the opium poppy, such as morphine and codeine; (2) semi-synthetic opioids, such as the prescription drugs hydrocodone and oxycodone and the illicit drug heroin; (3) synthetic opioids, such as methadone, tramadol, and fentanyl. Fentanyl is 50 to 100 times more potent than morphine. Fentanyl analogues, such as carfentanil, can be 10,000 times more potent than morphine. Overdose deaths from fentanyl have greatly increased since 2013 with the introduction of illicitly-manufactured fentanyl entering the drug supply [CDC 2016b; CDC 2018b]. The National Institute on Drug Abuse [NIDA 2018] has more information about types of opioids.

What is naloxone?

Naloxone hydrochloride (also known as naloxone, NARCAN® or EVZIO®) is a drug that can temporarily stop many of the life-threatening effects of overdoses from opioids. Naloxone can help restore breathing and reverse the sedation and unconsciousness that are common during an opioid overdose.

Side effects

Serious side effects from naloxone use are very rare. Using naloxone during an overdose far outweighs any risk of side effects. If the cause of the unconsciousness is uncertain, giving naloxone is not likely to cause further harm to the person. Only in rare cases would naloxone cause acute opioid withdrawal symptoms such as body aches, increased heart rate, irritability, agitation, vomiting, diarrhea, or convulsions. Allergic reaction to naloxone is very uncommon.

Limitations

Naloxone will not reverse overdoses from other drugs, such as alcohol, benzodiazepines, cocaine, or amphetamines. More than one dose of naloxone may be needed to reverse some overdoses. Naloxone alone may be inadequate if someone has taken large quantities of opioids, very potent opioids, or long acting opioids. For this reason, call 911 immediately for every overdose situation.

CDC NIOSH Centers for Disease Control and Prevention National Institute for Occupational Safety and Health

Opioids and Work

Opioid overdoses are occurring in workplaces. The Bureau of Labor Statistics (BLS) reported that overdose deaths at work from non-medical use of drugs or alcohol increased by at least 38% annually between 2013 and 2016. The 217 workplace overdose deaths reported in 2016 accounted for 4.2% of occupational injury deaths that year, compared with 1.8% in 2013 [BLS 2017]. This large increase in overdose deaths in the workplace (from all drugs) parallels a surge in overall overdose deaths from opioids reported by CDC [2017]. Workplaces that serve the public (i.e. libraries, restaurants, parks) may also have visitors who overdose while onsite.

Workplace risk factors for opioid use

Opioids are often initially prescribed to manage pain arising from a work injury. Risky workplace conditions that lead to injury, such as slip, trip, and fall hazards or heavy workloads, can be associated with prescription opioid use [Kowalski-McGraw et al. 2017]. Other factors, such as job insecurity, job loss, and high-demand/low-control jobs may also be associated with prescription opioid use [Kowalski-McGraw et al. 2017]. Some people who use prescription opioids may misuse them and/or develop dependence. Prescription opioid misuse may also lead to heroin use (Cicero et al. 2017). Recent studies show higher opioid overdose death rates among workers in industries and occupations with high rates of work-related injuries and illnesses. Rates also were higher in occupations with lower availability of paid sick leave and lower job security, suggesting that the need to return to work soon after an injury may contribute to high rates of opioid-related overdose death [MDPH 2018, CDC 2018c]. Lack of paid sick leave and lower job security may also make workers reluctant to take time off to seek treatment.

Considering a Workplace Naloxone Use Program

Anyone at a workplace, including workers, clients, customers, and visitors, is at risk of overdose if they use opioids. Call 911 immediately for any suspected overdose. Overdose without immediate intervention can quickly lead to death. Consider implementing a program to make naloxone available in the workplace in the event of an overdose. The following considerations can help you decide whether such a program is needed or feasible:

- Does the state where your workplace is located allow the administration of naloxone by non-licensed providers in the event of an overdose emergency?
- What liability and legal considerations should be addressed? Does your state's Good Samaritan law cover emergency naloxone administration?
- Do you have staff willing to be trained and willing to provide naloxone?
- Has your workplace experienced an opioid overdose or has there been evidence of opioid drug use onsite (such as finding drugs, needles or other paraphernalia)?
- How quickly can professional emergency response personnel access your workplace to provide assistance?
- Does your workplace offer other first aid or emergency response interventions (first aid kits, AEDs, trained first aid providers)? Can naloxone be added?
- Are the risks for opioid overdose greater in your geographic location? The National Center for Health Statistics provides data on drug overdose deaths in an online state dashboard. [CDC 2018a.]
- Are the risks for opioid overdose greater in your industry or among occupations at your workplace? [See MDPH 2018 and CDC 2018c.]
- Does your workplace have frequent visitors, clients, patients, or other members of the public that may be at increased risk of opioid overdose?

Photo by ©Thinkstock

Review the above questions periodically even if a program is not established right away. Ideally, a naloxone program is but a part of a more comprehensive workplace program on opioid awareness and misuse prevention.

Establishing a Program

You will need policies and procedures for the program. These should be developed in consultation with safety and health professionals. Involve the workplace safety committee (if present) and include worker representatives. You also will need a plan to purchase, store, and administer naloxone in case of overdose. Additional considerations for establishing a program are described below.

Risk assessment

Conduct a risk assessment before implementing the naloxone program.

- Decide whether workers, visiting clients, customers, or patients are at risk of overdose.
- Assess availability of staff willing to take training and provide naloxone.
- Consult with professional emergency responders and professionals who treat opioid use disorders in your area.

Liability

Consider liability and other legal issues related to such a program.

Records management

Include formal procedures for documenting incidents and managing those records, to include safeguarding the privacy of affected individuals. Maintain records related to staff roles and training.

Staff roles

Define clear roles and responsibilities for all persons designated to respond to a suspected overdose. Include these roles and responsibilities in existing first aid or emergency response policies and procedures (first aid kits, AEDs, training for lay first-aid providers, and/or onsite health professionals).

Training

Train staff to lower their risks when providing naloxone. Staff must be able to:

- Recognize the symptoms of possible opioid overdose.
- Call 911 to seek immediate professional emergency medical assistance.
- Know the dangers of exposure to drug powders or residue.
- Assess the incident scene for safety concerns before entering.
- Know when NOT to enter a scene where drug powders or residues are visible and exposure to staff could occur.
- Know to wait for professional emergency responders when drug powders, residues, or other unsafe conditions are seen.
- Use personal protective equipment (PPE; nitrile gloves) during all responses to protect against chemical or biological exposures including opioid residues, blood, or other body fluids.
- Administer naloxone and recognize when additional doses are needed.
- Address any symptoms that may arise during the response, including agitation or combativeness from the person recovering from an overdose.
- Use additional first aid, CPR/basic life support measures. Opioid overdose can cause respiratory and cardiac arrest.

Prepare for possible exposure to blood. Needles or other sharps are often present at the scene of an overdose. Provide bloodborne pathogen training to responding staff members and consider additional protection, such as hepatitis B vaccination.

Using Naloxone to Reverse Opioid Overdose Factsheet (cdc.gov)

Naloxone: Establishing a Workplace Program

- **Risk assessment:** Conduct a risk assessment before implementing the naloxone program.
- **Liability:** Consider liability and other legal issues
- **Records Management:** Include formal procedures for documenting incidents and managing records
- **Staff Roles:** Define clear roles/responsibilities for all persons designated to respond to a suspected overdose
- **Training:** Train staff to lower their risks when providing naloxone
- **Purchasing and storing Naloxone:** Naloxone is widely available in pharmacies, follow manufacturer instructions for storing, keeping it near all other PPE (gloves, etc.)
- **Follow-up care planning:** Develop a plan for immediate care, referral, and ongoing support for any worker who has overdosed
- **Maintenance:** Re-evaluate your program periodically, assessing for new risks

https://www.cdc.gov/niosh/docs/2019-101/pdfs/2019-101.pdf?id=10.26616/NIOSHPUB2019101

NIOSH Workplace Solutions: Medication- Assisted Treatment for Opioid Use Disorder

- MAT is the gold standard.
- SUD is a chronic disease, treatable, manageable.
- *Employment and RTW strategies are critical, and MAT contributes to more stable, long-term employability.*

https://www.cdc.gov/niosh/docs/wp-solutions/2019-133/pdfs/2019-133.pdf

WORKPLACE SOLUTIONS

From the National Institute for Occupational Safety and Health

Medication-Assisted Treatment for Opioid Use Disorder

Summary

The opioid overdose epidemic continues to claim lives across the country with a record 47,600 overdose deaths in 2017. (This number represents 67.8% of the 70,237 overdose deaths from all drugs) [CDC 2018a]. More Americans now die every year from drug overdoses than in motor vehicle crashes [CDC 2016]. The crisis is taking an especially devastating toll on certain parts of the U.S. workforce. High rates of opioid overdose deaths have occurred in industries with high injury rates and physically demanding working conditions such as construction, mining, or fishing [Massachusetts Department of Public Health 2018; CDC 2018b]. Certain job factors such as high job demands, job insecurity, and lack of control over tasks have also been linked to opioid use [Kowalski-McGraw et al. 2017]. Medication-assisted treatment (MAT) (also known as medication-based treatment*) has been shown to be effective for many people with opioid use disorder [SAMHSA 2015b; National Academies of Sciences, Engineering, and Medicine 2019]. In addition to providing general information about MAT, this document provides information for employers wishing to assist or support workers with opioid use disorder.

Background

Challenges related to prescription drug misuse, illicit drug use, and addiction affect individual workers, their families, and both large and small businesses. In a 2017 National Safety Council survey, 70% of employers reported suffering the negative effects of prescription drug misuse; noting positive drug tests, absenteeism, injuries, accidents, and overdoses [Hersman 2017]. In 2013, the total U.S. societal costs of prescription opioid use disorder (OUD) and overdoses were $78 billion. Of that, about $2.8 billion was for treatment [Florence et al. 2016].†

In 2016, individuals with insurance coverage received $2.6 billion in services for treatment of opioid addiction and overdose, a dramatic increase from $0.3 billion in 2004 (based on claims data from large employers). Of that $2.6 billion, $1.3 billion was for outpatient treatment, $911 million was for inpatient care, and $435 million was for prescription drugs [Cox et al. 2018].

Employers may save up to $2,607 per worker annually (based on 2012–2014 data) by getting workers into treatment [NSC et al. 2016; NORC].

Despite these findings, 80% of individuals in need of treatment for a substance use disorder in 2016 did not receive treatment [CBHSQ 2017]. Making medication-assisted treatment (MAT) more readily available to people with OUD can help diminish the opioid crisis in the United States.

Treatment

What is medication-assisted treatment (MAT)?

MAT uses medications approved by the U.S. Food and Drug Administration (FDA) in combination with counseling and behavioral therapies to treat OUD involving misuse of either prescription

*Note that some experts recommend the term "medication-based treatment" or MBT instead of MAT. This change in nomenclature aligns with the premise that OUD is a chronic disorder for which medications are first-line treatments (often an integral part of a person's long-term treatment plan) rather than complementary or temporary aids on the path to recovery [National Academies of Sciences, Engineering, and Medicine 2019].

†The White House Council of Economic Advisers [CEA 2017] estimated the economic cost of these deaths related to opioids "using conventional economic estimates for valuing life routinely used by U.S. Federal agencies." The CEA report "also adjusts for underreporting of opioids in overdose deaths, includes heroin-related fatalities, and incorporates nonfatal costs of opioid misuse." CEA estimates that in 2015, the economic cost of the opioid crisis was $504.0 billion, or 2.8 percent of GDP that year."

CDC NIOSH

What is a recovery-supportive workplace?

A recovery-supportive workplace aims to **prevent exposure** to workplace factors that could cause or perpetuate a substance use disorder while **lowering barriers** to seeking care, receiving care, and maintaining recovery.

A recovery-supportive workplace **educates** its management team and workers on issues surrounding substance use disorders to **reduce the all-too-common stigma** around this challenge.

Workplace Supported Recovery

- Evidence-based policies and programs to:
  - Reduce risk of initiating substance use/misuse
  - Lower the threshold/barriers for seeking care
  - Educate, empower management teams
  - Lower stigma
  - Ensure privacy and confidentiality
  - Assist workers in recovery, reintegration, RTW
- Naloxone, MAT awareness/supports

Workplace Supported Recovery
Reduce stigma and send the right message

- Stigmatization (negative attitudes and stereotypes) can lead to prejudice, discrimination, social exclusion, and limited opportunities for employment and other life roles
- Frequently experienced by individuals with SUD or in recovery
- Visible educational materials and consistent discussions of the actual nature of SUDs, treatment, and recovery may help reduce stigma and encourage others to enter treatment

Key Talking Point **Substance use disorders are not a moral failing, recovery is possible, people can get better and return to work**

Opioids in the Workplace and ***Workplace Supported Recovery*** Webpages*:*

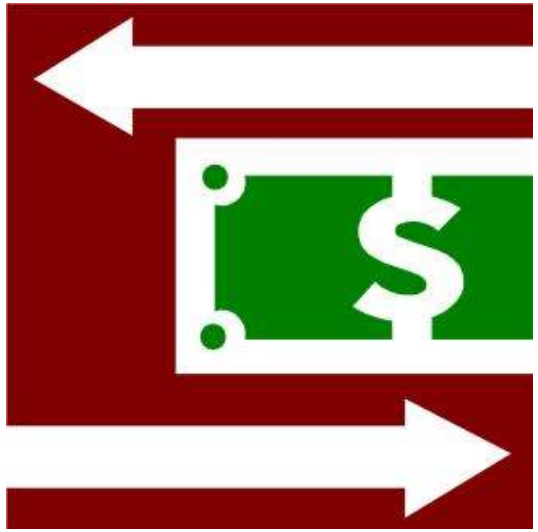
https://www.cdc.gov/niosh/topics/opioids/default.html

https://www.cdc.gov/niosh/topics/wsrp/default.html

Opportunities: Organizational Performance

Employee engagement

- Profitability
- Customer ratings
- Turnover
- Safety incidents
- Productivity
- Presenteeism
- Quality

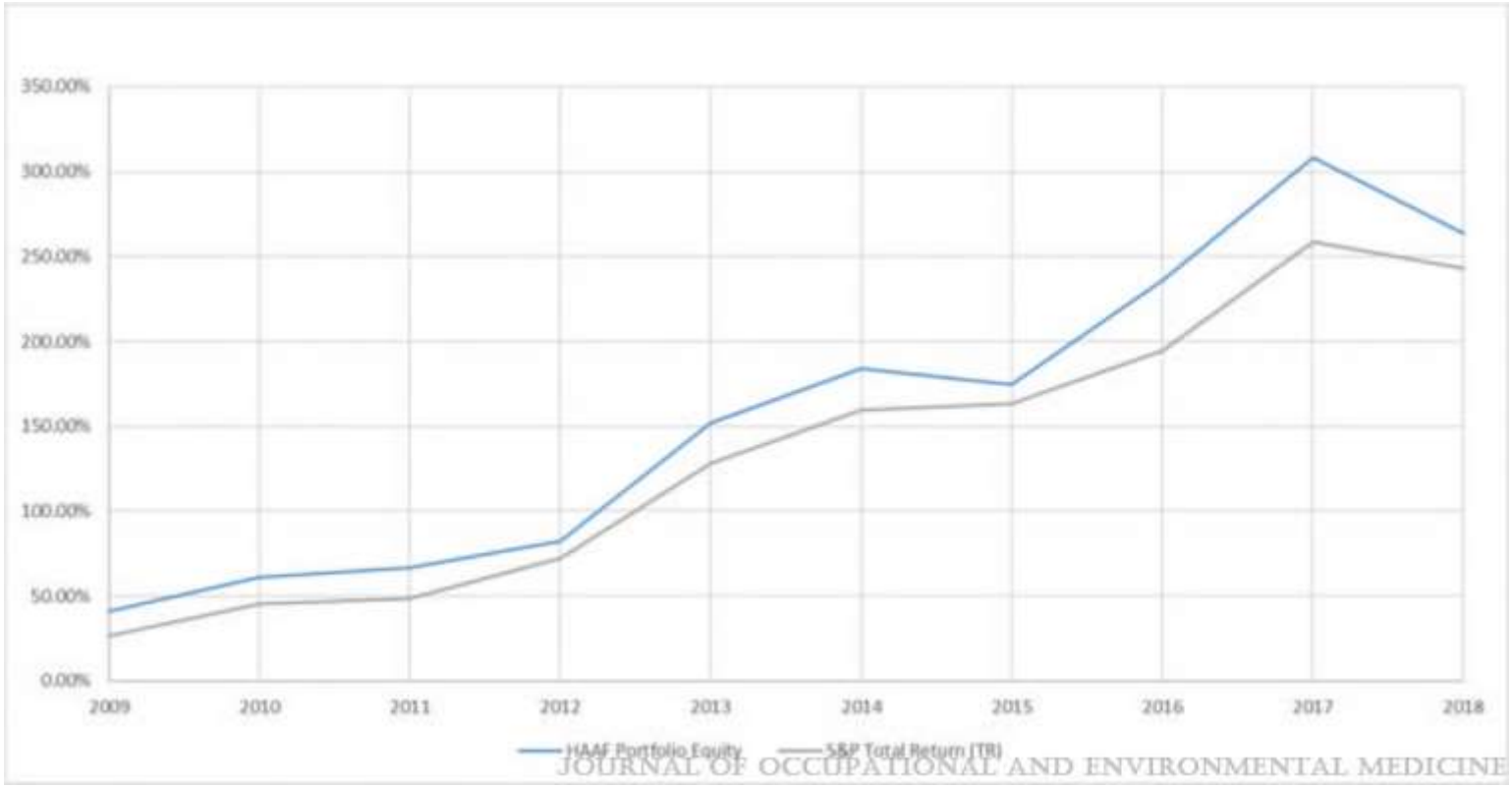


Opportunities:

- Risk Reduction as Innovation & Competitive Advantage
- Expanded Understanding of Worker Issues
- Metrics
- Collaboration

Organizational Performance

Relative performance—Health Advantage Appreciation Fund (HAAF) compared with S&P 500



Fabius, Raymond; Phares, Sharon. Companies That Promote a Culture of Health, Safety, and Wellbeing Outperform in the Marketplace. Journal of Occupational and Environmental Medicine63(6):456-461, June 2021. doi: 10.1097/JOM.0000000000002153.
https://journals.lww.com/joem/Fulltext/2021/06000/Companies_That_Promote_a_Culture_of_Health,.2.aspx

Building Capacity

Professionals

- Human resources managers
- Executive leadership
- Frontline & mid-level managers
- Occupational safety and health experts

Intermediaries

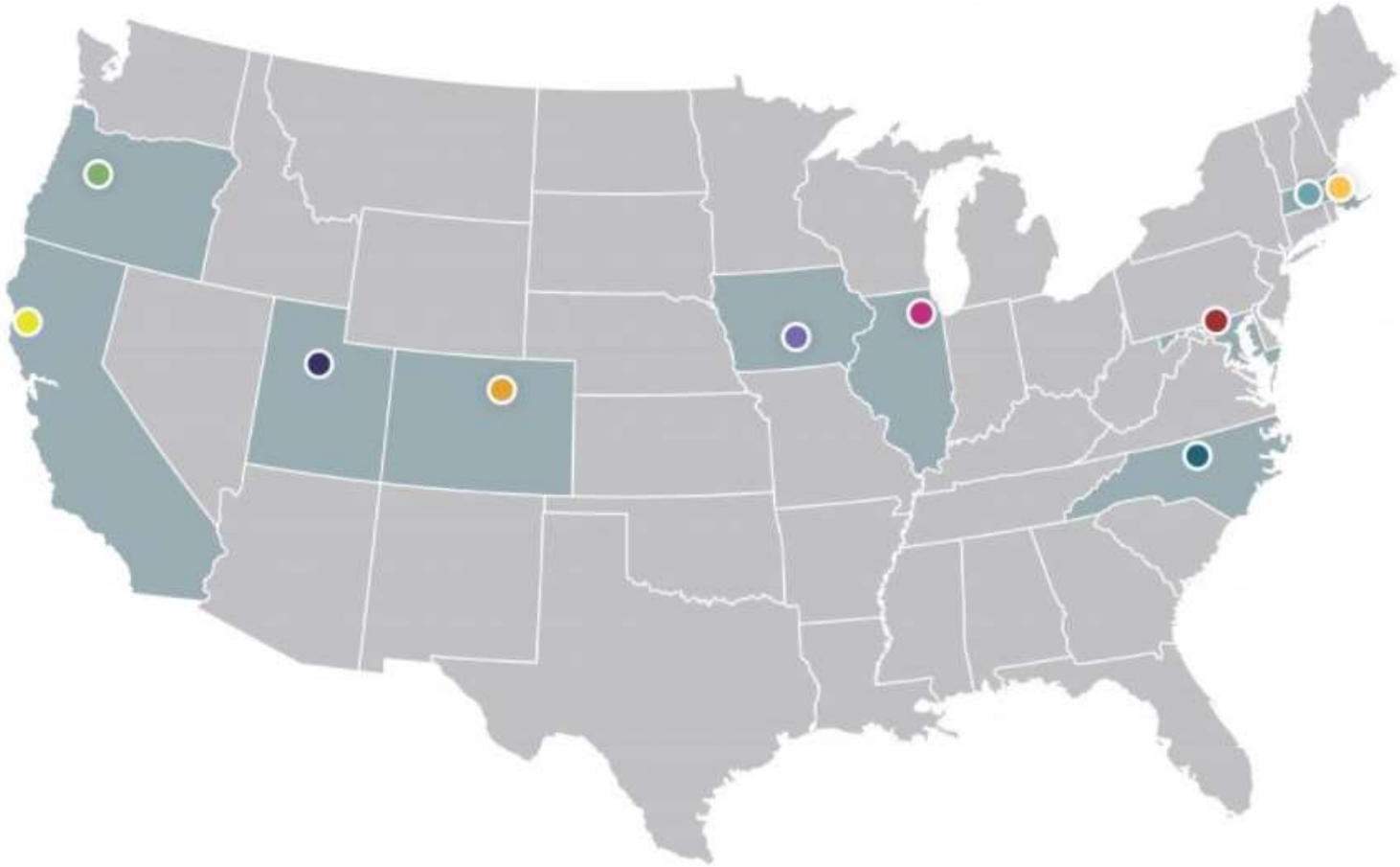
- Public health departments
- Workers' compensation insurers
- Business groups on health
- Community health organizations
- Journals and editors
- Technology sector
- Retirement benefits providers

Newman LS, Scott JG, Childress A, et al. Education and Training to Build Capacity in *Total Worker Health*®. J Occ and Env Medicine 2020. 62(8): e384-e391.

NIOSH *Total Worker Health*® Affiliates

NIOSH Total Worker Health® Affiliates	
AgriSafe Network	Mental Health America
American Association of Occupational Health Nurses	Miami Occupational Research Group, U of Miami
American College of Occupational and Environmental Medicine	Mount Sinai Entities
American College of Preventive Medicine	National Aeronautics and Space Administration
American Industrial Hygiene Association	National Association of Worksite Health Centers
American Society of Safety Professionals	National Institutes of Health
Association of Occupational Health Professionals in Healthcare	National Oceanic and Atmospheric Administration (NOAA) Office of Marine and Aviation Operations
Center for Intelligent Environments (CENTIENTS)	National Park Service
Centers for Disease Control and Prevention	National Safety Council
Center for Social Epidemiology	Nebraska Safety Council
City of Eugene, OR	Northern Kentucky University
City of Plano, TX	Ohio Bureau of Workers' Compensation
Dartmouth Hitchcock Medical Center	SAIF Corporation
Dr. James F. McNeil Vocational Consulting Services	Society for Occupational Health Psychology
Eastern Kentucky University	St. Louis Area Business Health Coalition
Eskenazi Health	St. Luke's Health System (Idaho)
Eugene Water & Electric Board	University of Alabama
HealthPartners Institute	University of Buffalo
Institute on Disability, U of New Hampshire	University of California –Davis
Interdisciplinary Center for Healthy Workplaces, U of CA –Berkeley	University of California –Los Angeles
International Brotherhood of Boilermakers	University of Georgia
ISSA—The Worldwide Cleaning Industry Association	University of North Carolina --Greensboro
Kentucky Injury Prevention and Research Center	University of Michigan
Labor Occupational Health Program, U of CA –Berkeley	University of Rochester
Laborers' Health & Safety Fund of North America	University of Texas Health Science Center at Houston
Madison County, NY	Western Kentucky University

NIOSH Centers of Excellence for *Total Worker Health®*



- California Labor Laboratory (CALL Center)
- Carolina Center for *Total Worker Health®* and Well-being
- Center for Health, Work & Environment
- Center for the Promotion of Health in the New England Workplace (CPH-NEW)
- Healthier Workforce Center of the Midwest
- Johns Hopkins P.O.E. *Total Worker Health®* Center in Mental Health (POE Center)
- Oregon Healthy Workforce Center (OHWC)
- The Harvard T.H. Chan School of Public Health Center for Work, Health & Well-being
- UIC Center for Healthy Work
- Utah Center for Promotion of Work Equity (U-POWER)

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http://www.cdc.gov/niosh/twh

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NIOSH *Total Worker Health* Group
https://www.linkedin.com/groups/4473829/

TWH in Action! eNewsletter

http://www.cdc.gov/niosh/TWH/newsletter/

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