



THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

CPWR Opioids Webinar

February 27th, 2020

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Executive Director

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CPWR Data Center Director



Overview

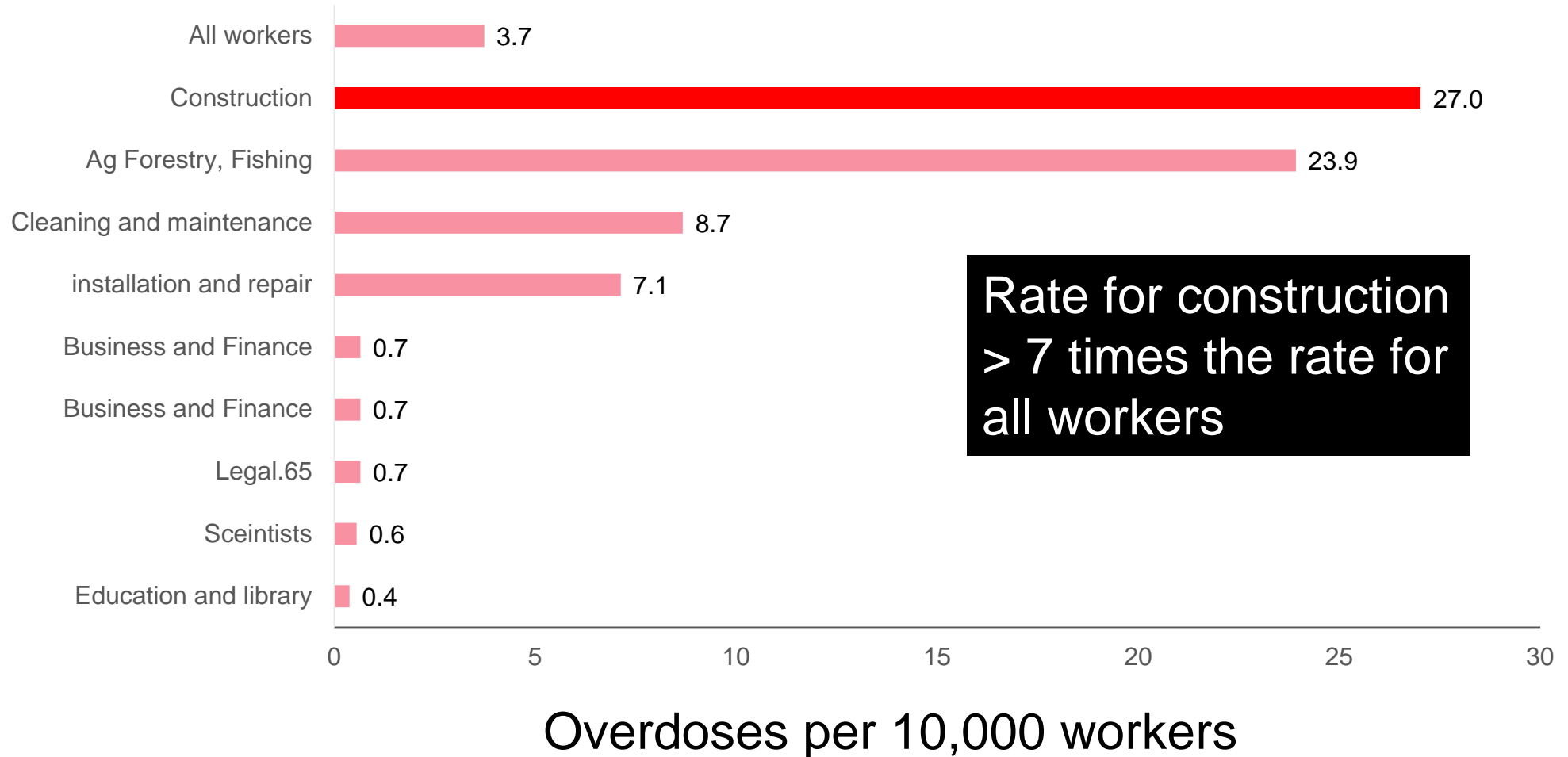
1. Why this is important
2. New data
3. CPWR resources

WHY?



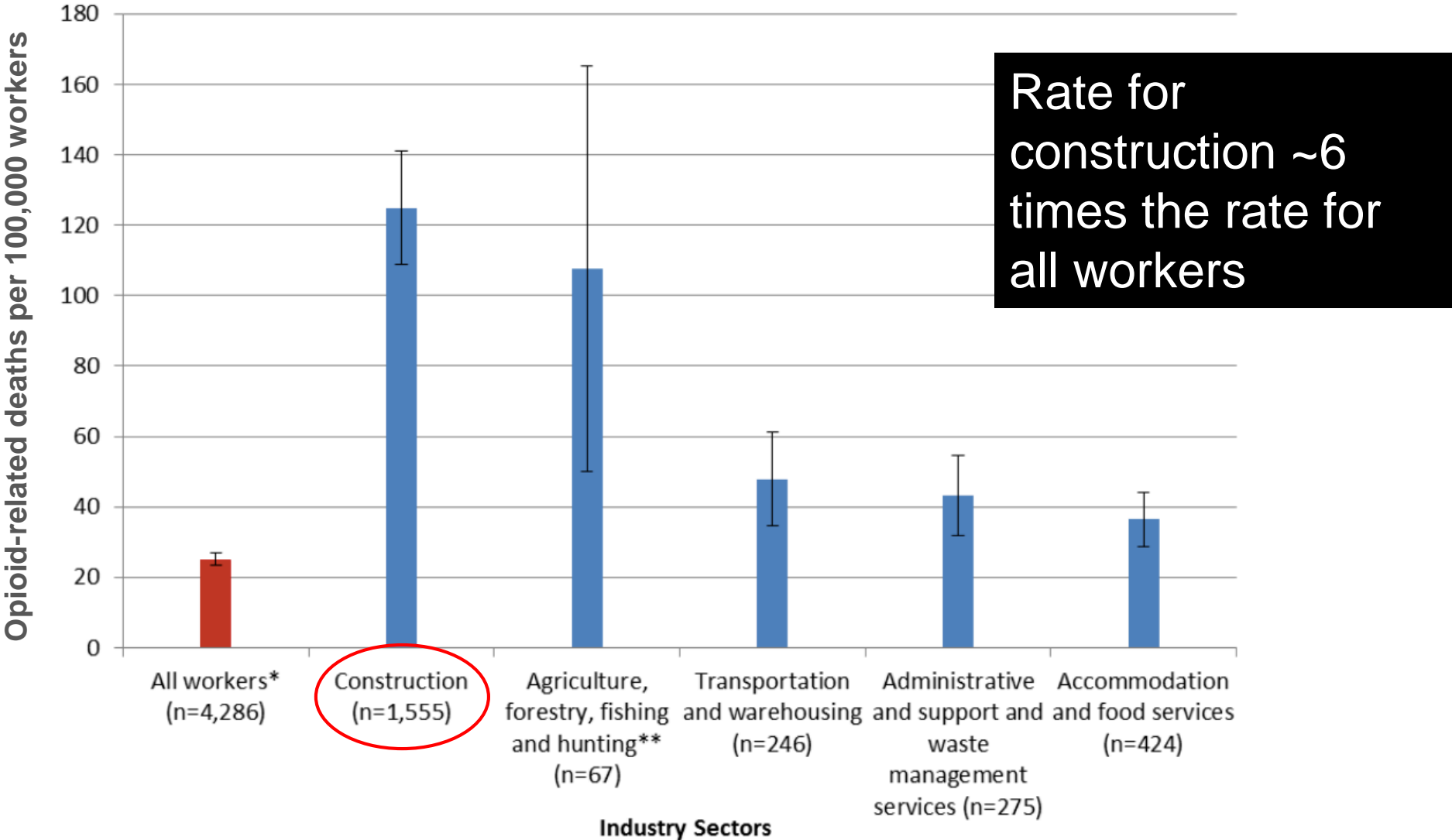
Photo courtesy CPWR's electronic
Library of Construction
Safety and Health
Photo by Earl Dotter

Rate of Opioid Overdose Deaths by Industry, Ohio, 2010-2016*



* Highest and lowest rate industries. Source: Cleveland Plain Dealer

Industry sectors with opioid-related overdose death rates significantly higher than the average rate for all workers, Massachusetts workers, 2011-2015, n=4,302



New Data in this Webinar

- Three new data sources analyzed:
 - Census of Fatal Occupational Injuries (CFOI)
 - Medical Expenditure Panel Survey (MEPS)
 - National Survey of Drug Use and Health (NSDUH)
- Many Limitations
- Some Surprising Results

Overdose Fatalities at Worksites and Opioid Use in the Construction Industry

Xiuwen Sue Dong, DrPH*, Raina D. Brooks, MPH, Chris Trahan Cain, CIH

Foreword

Construction workers are among the segments of the U.S. population opioids have hit hardest. Recent state-level studies of opioid overdose deaths show that construction workers are six to seven times more likely to die of an overdose than workers in other professions. The impact of opioids to our field led us to make it the focus of this Quarterly Data Report.

Section 1 examines a small subset of construction workers who died of an overdose: those who died on a worksite. These are figures for which we have national data, but there is not equivalent national data yet about how many of the 130 Americans who die each day from an opioid overdose work in construction.

This report also reveals other gaps in our understanding of the impact of opioids on construction workers. For example, Section 2 contains the surprising finding that the percentage of construction workers who used prescribed opioids, on average, is slightly lower than workers in all industries combined. Our assumption before conducting this analysis was the reverse, given that construction has one of the highest injury rates of all industries, particularly musculoskeletal disorders that often result in chronic pain and long-term pain management. One possible explanation for this counter-intuitive finding: construction workers are less likely to have health insurance than workers in other major industry sectors, and so they may be less likely to receive a prescription for opioids than workers in other sectors.

While the impact of opioids on the construction industry and its workers is becoming clearer, there remains much we need to learn to understand and respond to the damage they are causing. We look forward to receiving your feedback on this important report and working collectively to minimize the impact opioids are having on workers, their families, the industry, and society overall.

Chris Trahan Cain
Executive Director
CPWR

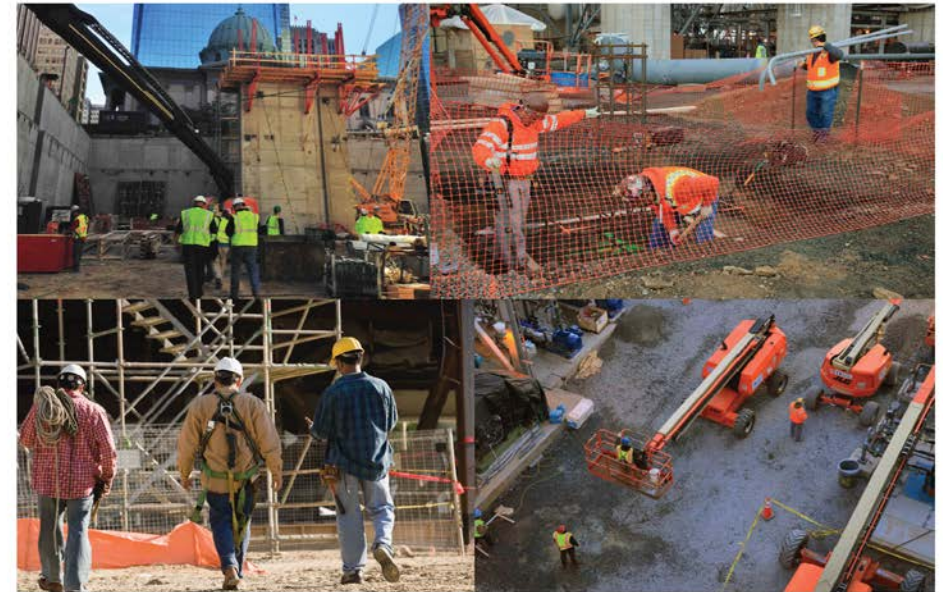
* Correspondence to: Xiuwen Sue Dong, SDong@cpwr.com.

KEY FINDINGS

- Unintentional overdose fatalities in the construction industry jumped from 7 deaths in 2011 to 65 deaths in 2018, a nine-fold increase in eight years.
- Between 2011 and 2017, one in four (25.3%) construction workers with work-related injuries used prescribed opioid pain relievers, compared to approximately one in ten (8.9%) of their counterparts who were not injured.
- Older construction workers were more likely to use prescribed opioid pain relievers, while younger construction workers were more likely to use illicit drugs.
- Uninsured construction workers were less likely to use prescribed opioid pain relievers, but more likely to use illicit drugs than their insured counterparts.

Introduction

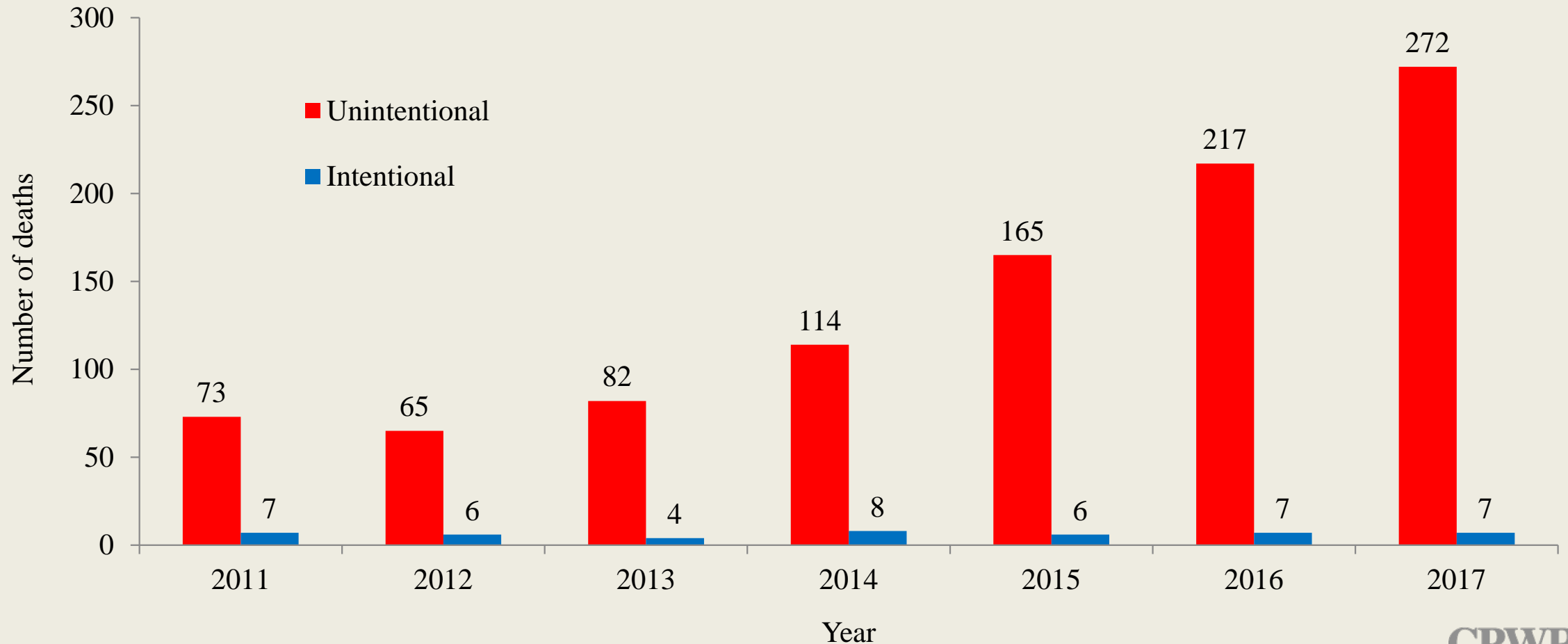
Overdose deaths and opioid use have risen to epidemic levels in the United States. Researchers have found that the risk of overdose fatality and opioid use was higher in construction than in other industries (Dissell, 2017; MDPH, 2018 Tiesman et al., 2019; MDPH, 2019; Thumula et al., 2017; Asfaw et al., 2019). In response to this emerging issue, North America's Building Trades Unions (NABTU) established a [Task Force](#) in January 2018. CPWR has supported this effort by compiling existing and developing new [resources](#) for the construction industry (CPWR, 2019). NIOSH has also joined the efforts to address this hazard, and developed a variety of online resources to support workers and employers battling the crisis (NIOSH, 2019a, 2019b). To better understand this increasing epidemic in construction and provide insight for safety and health interventions, this Quarterly Data Report examines the trends of overdose fatalities at workplaces, prevalence of prescribed opioid use and drug abuse, and the association of work-related injuries with prescription opioid use in construction. The data used for this report were obtained from three large, nationally representative datasets, including the Census of Fatal Occupational Injuries (CFOI), Medical Expenditure Panel Survey (MEPS), and the National Survey of Drug Use and Health (NSDUH). Due to the complex measures used in this report, users should review the accompanying notes and text with the charts, as well as the definitions included.



1. Workplace Overdose Fatalities

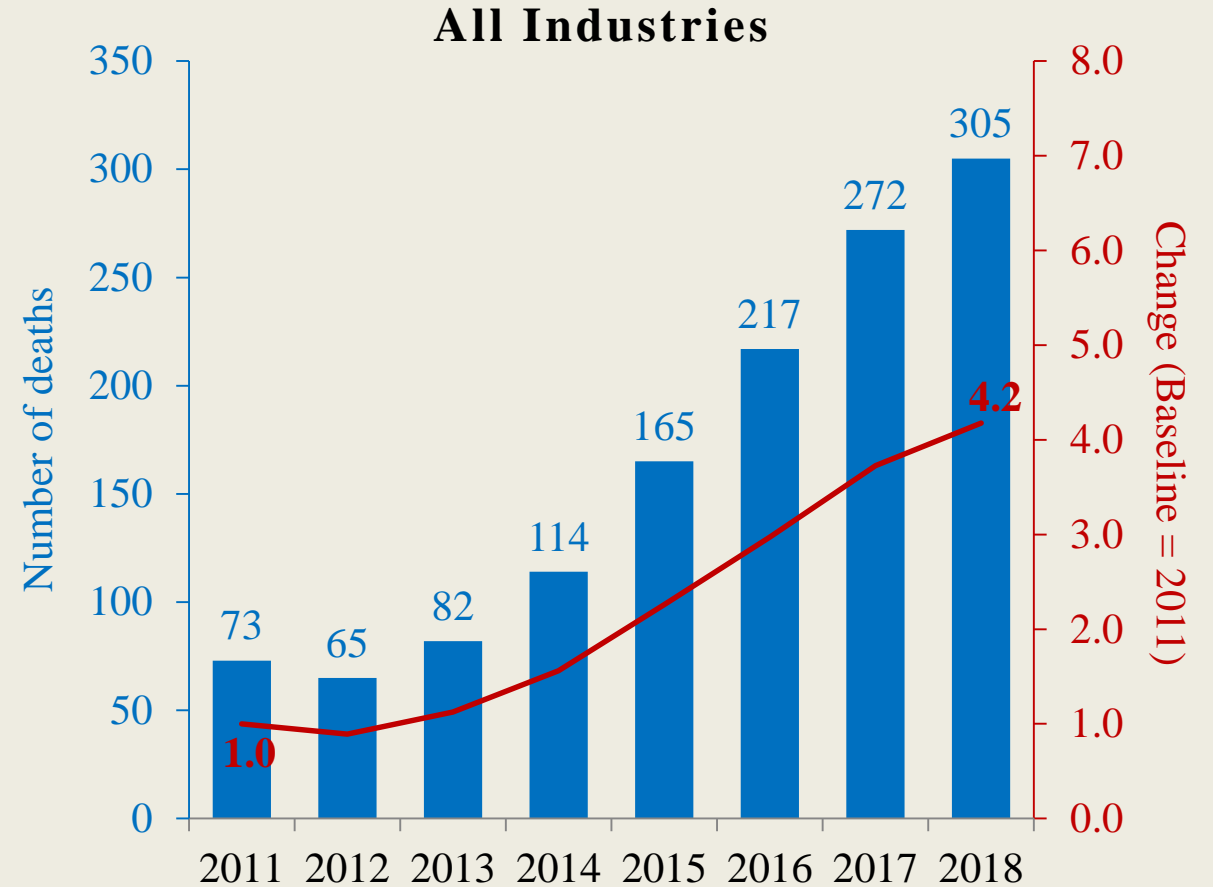
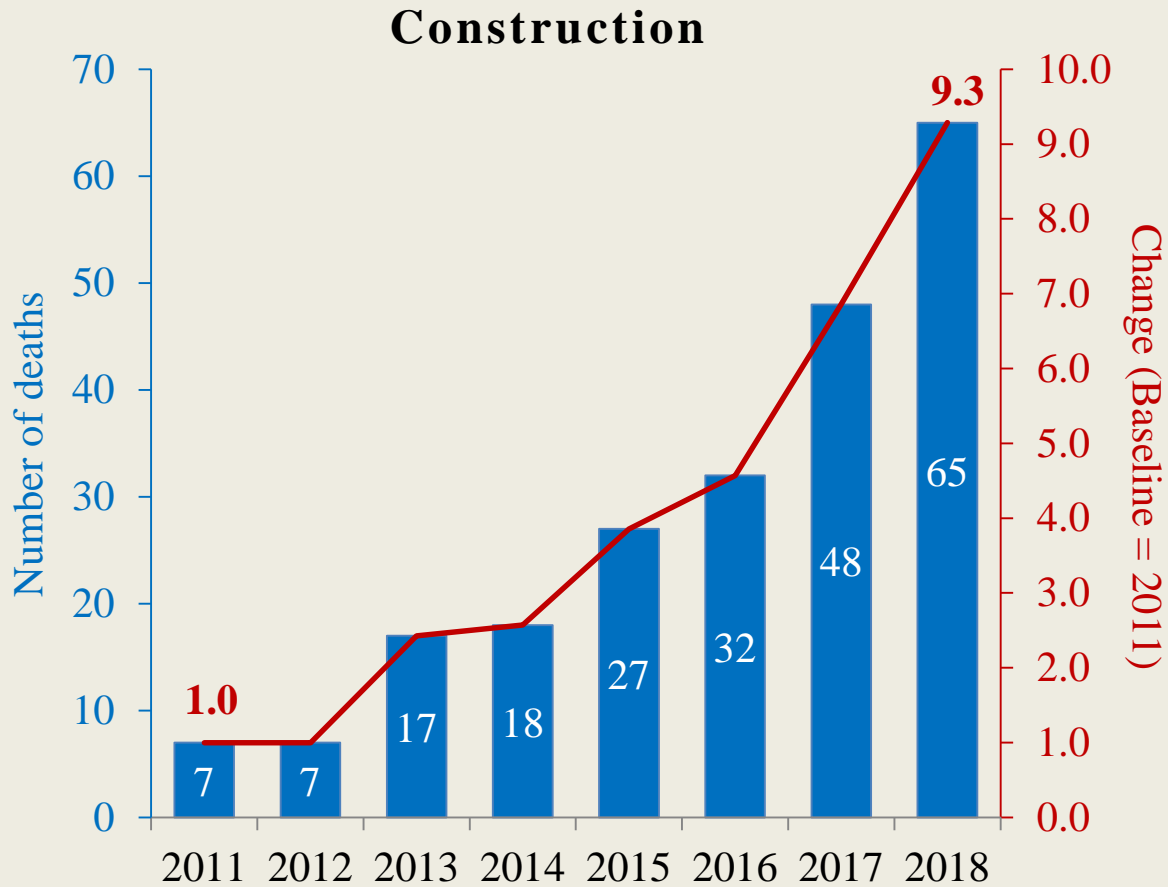
- ❖ **Data Source:** The Census of Fatal Occupational Injuries (CFOI)
 - **2011-2017 Data:** From CFOI research files; calculations by the CPWR Data Center
 - **2018 Data:** BLS website: <https://www.bls.gov/iif/>
- ❖ **Definition: Overdose** — a category of Event/Exposure in the BLS Occupational Injury and Illness Classification System (OIICS), version 2.01
 - **1125:** Drug overdose—intentional self-harm
 - **1224:** Drug overdose—intent unknown
 - **5510:** Nonmedical use of drugs or alcohol—unintentional overdose
 - **5542:** Drug overdose—accidental overdose from medical injection

The majority of overdose fatalities at worksites were unintentional (All industries, 2011-2017)



Source: Fatal injury data were generated by the CPWR Data Center with restricted access to the BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS.

Unintentional overdose fatalities in construction workplaces increased ninefold from 2011 to 2018, more than twice the increase for all industries



Source: Fatal injury data in 2011-2017 were generated by the CPWR Data Center with restricted access to the BLS CFOI micro data, including all employment in the construction industry. The 2018 data were obtained from the BLS website, <https://www.bls.gov/iif/>, and includes fatalities in the private construction sector only. The views expressed here do not necessarily reflect the views of the BLS.

Codes of SOURCE from the OIICS

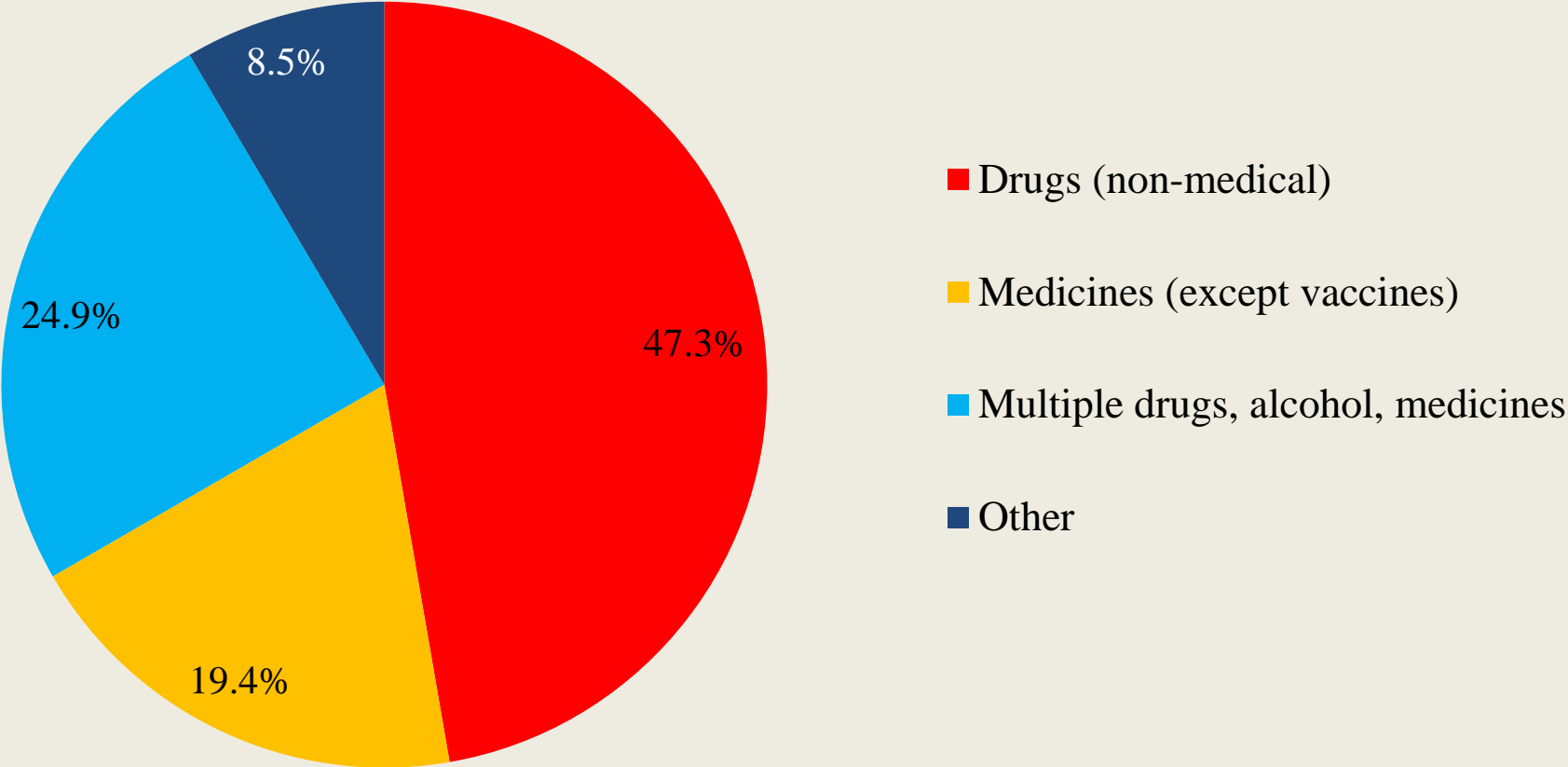
SOURCE 184*

Drugs
Alcohol
medicines

- 1840: Drugs, alcohol, and medicines, unspecified
- 1841: Alcoholic beverages
- **1842: Drugs—nonmedicinal**
- 1843: Medicines, except vaccines (anesthetics over the counter drugs, prescription drugs)
- 1844: Vaccines
- 1848: Multiple drugs, alcohol, and medicines
- 1849: Drugs, alcohol, and medicines, n.e.c.

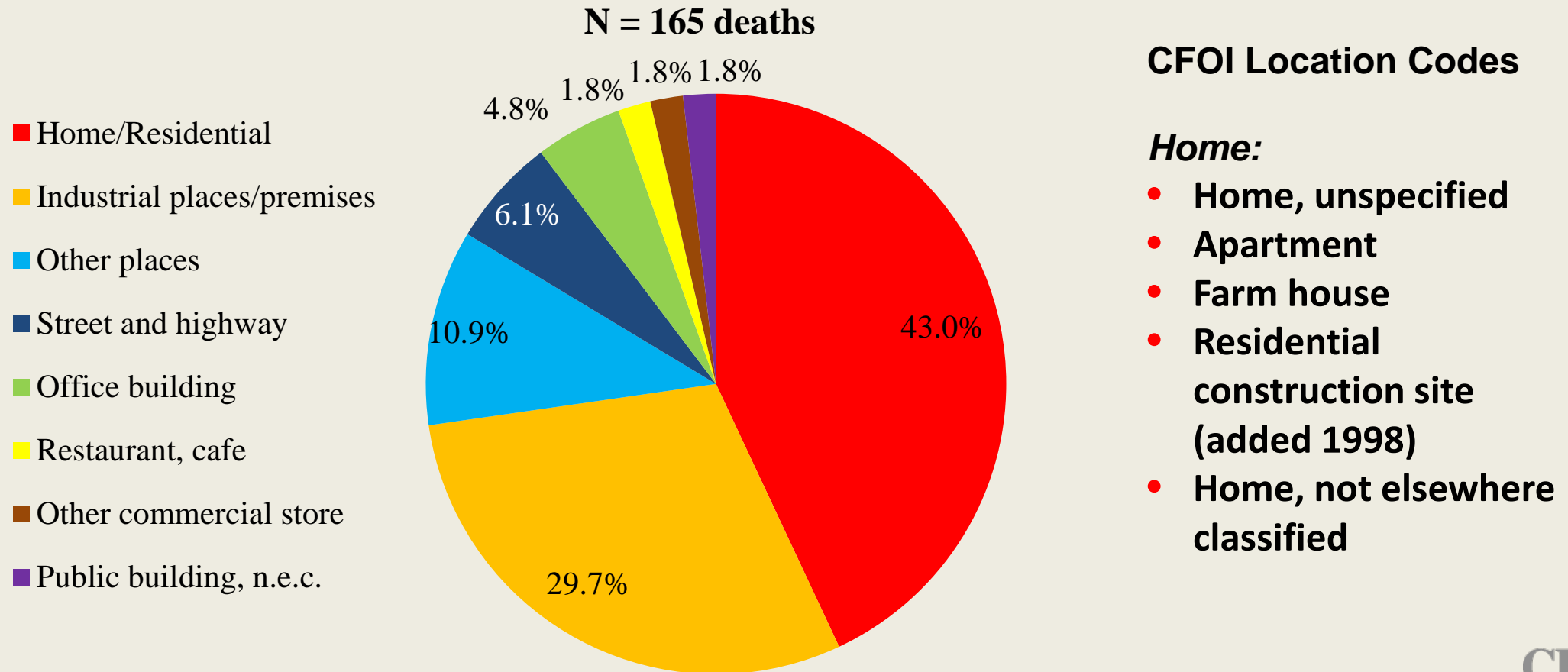
Nearly half of overdose fatalities at construction worksites were caused by drugs—nonmedical (sum of 2011-2017)

N = 165 deaths

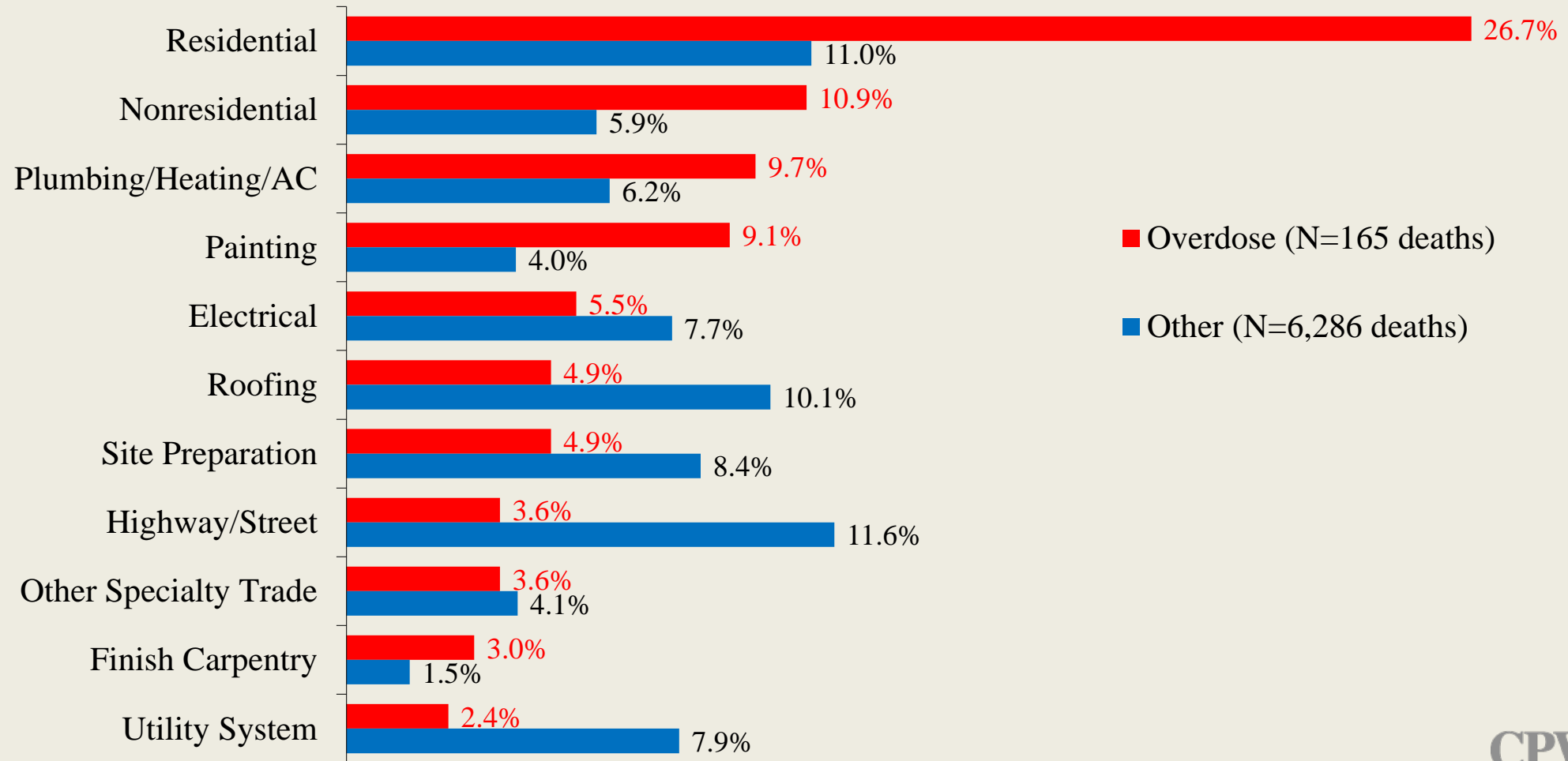


Source: Fatal injury data were generated by the CPWR Data Center with restricted access to the BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS.

About 43% of overdose fatalities in construction workplaces occurred at *home/residential* sites (sum of 2011-2017)



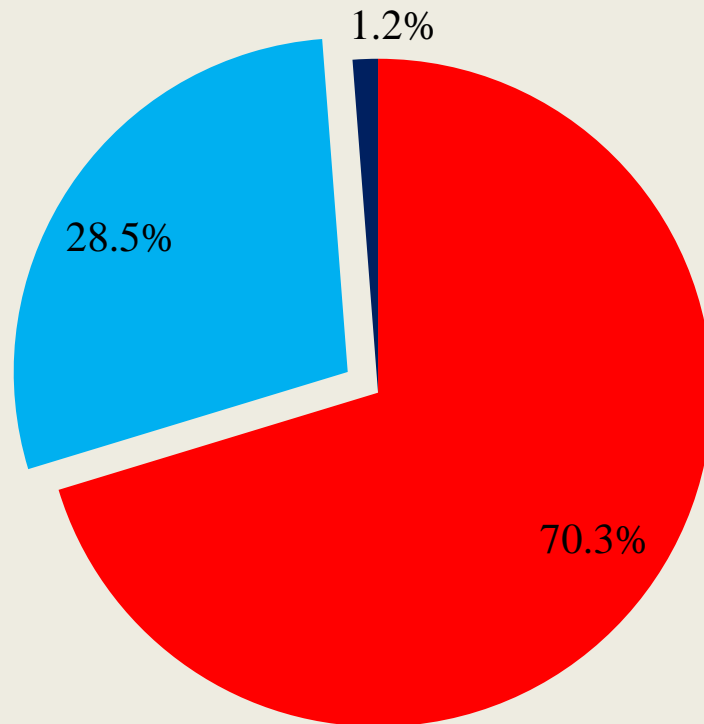
The number of workplace overdose fatalities was disproportionately high in Residential Building Construction (NAICS 23611) (sum of 2011-2017)



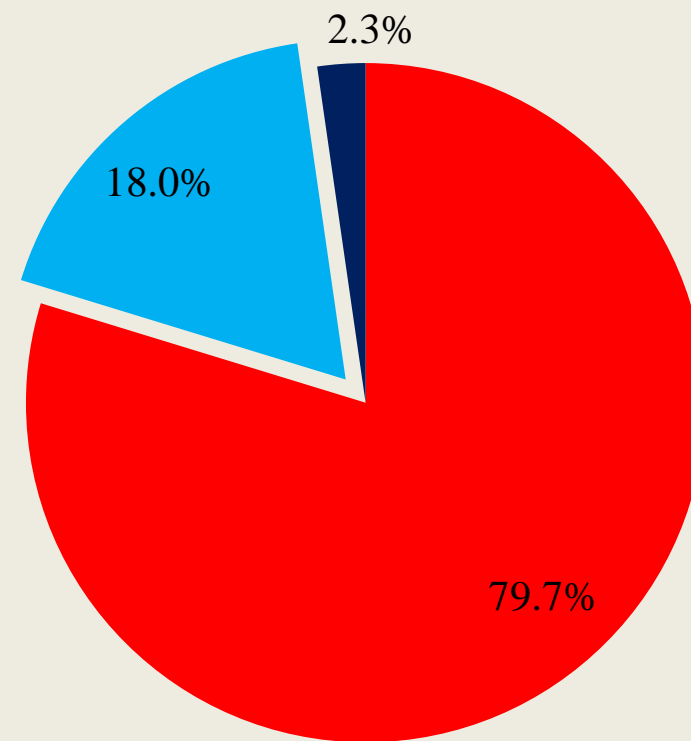
Source: Fatal injury data were generated by the CPWR Data Center with restricted access to the BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS.

The number of workplace overdose fatalities in construction was disproportionately high among self-employed workers (sum of 2011-2017)

Overdose (N = 165 deaths)



Other Causes (N = 6,286 deaths)



■ Wage-and-salary ■ Self-employed ■ Others

Note: "Others" includes work for family business, volunteer, and type of employment not reported.

Source: Fatal injury data were generated by the CPWR Data Center with restricted access to the BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS.

2. Prescribed Opioid Use

❖ **Data Source:** The Medical Expenditure Panel Survey (MEPS), a set of large-scale surveys of families and individuals, their medical providers (doctors, hospitals, pharmacies, etc.), and employers across the United States, cosponsored by the Agency for Healthcare Research and Quality (AHRQ) and the National Center for Health Statistics (NCHS).

- Household Component (HC)
- Medical Provider Component (MPC, supplement to HC)
- Insurance Component (IC)

❖ **Three Data Files from HC**

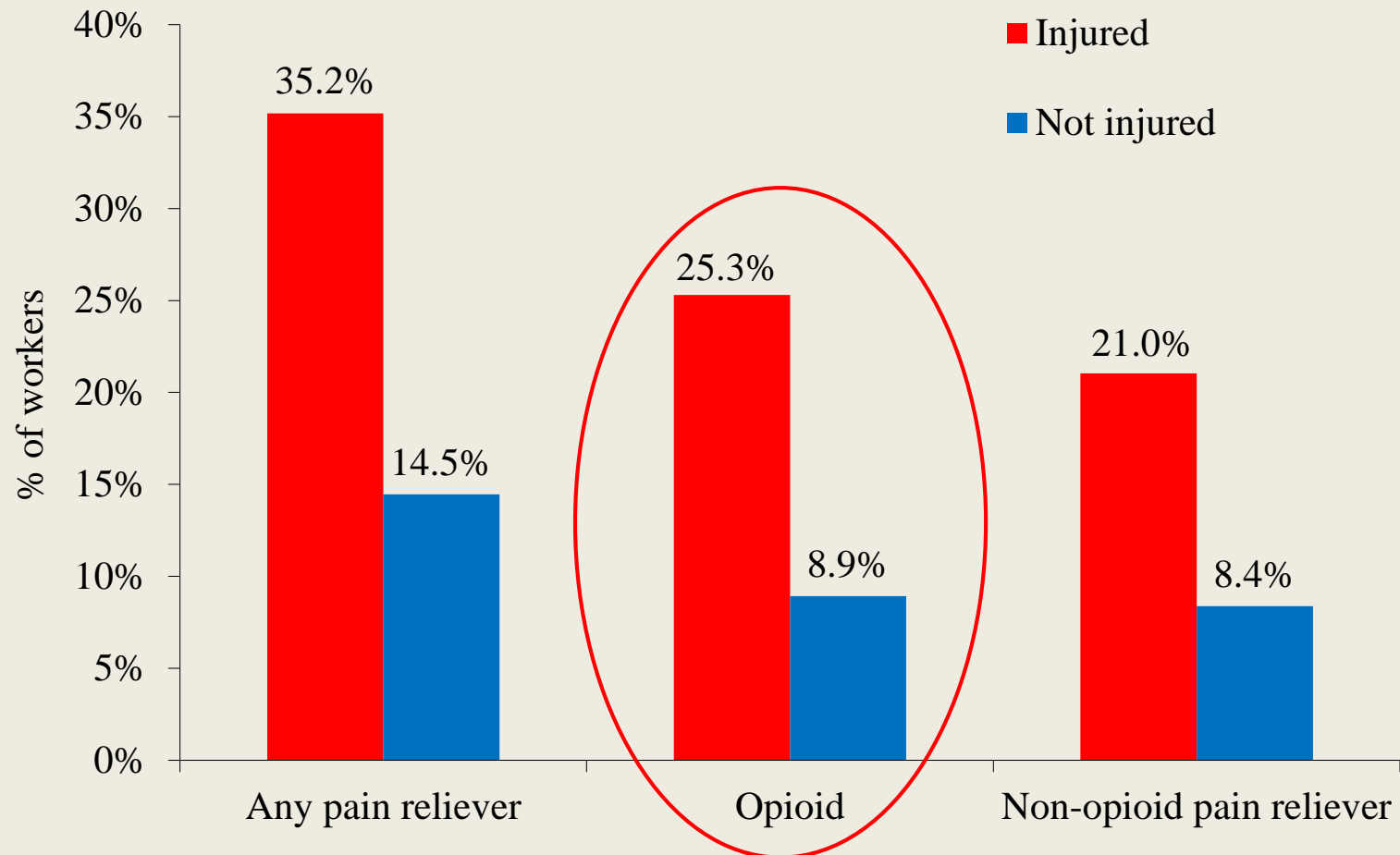
1. Full Year Consolidated Data File
2. Medical Conditions File
3. Prescribed Medicines File

Linked by Survey ID

Construction Workers

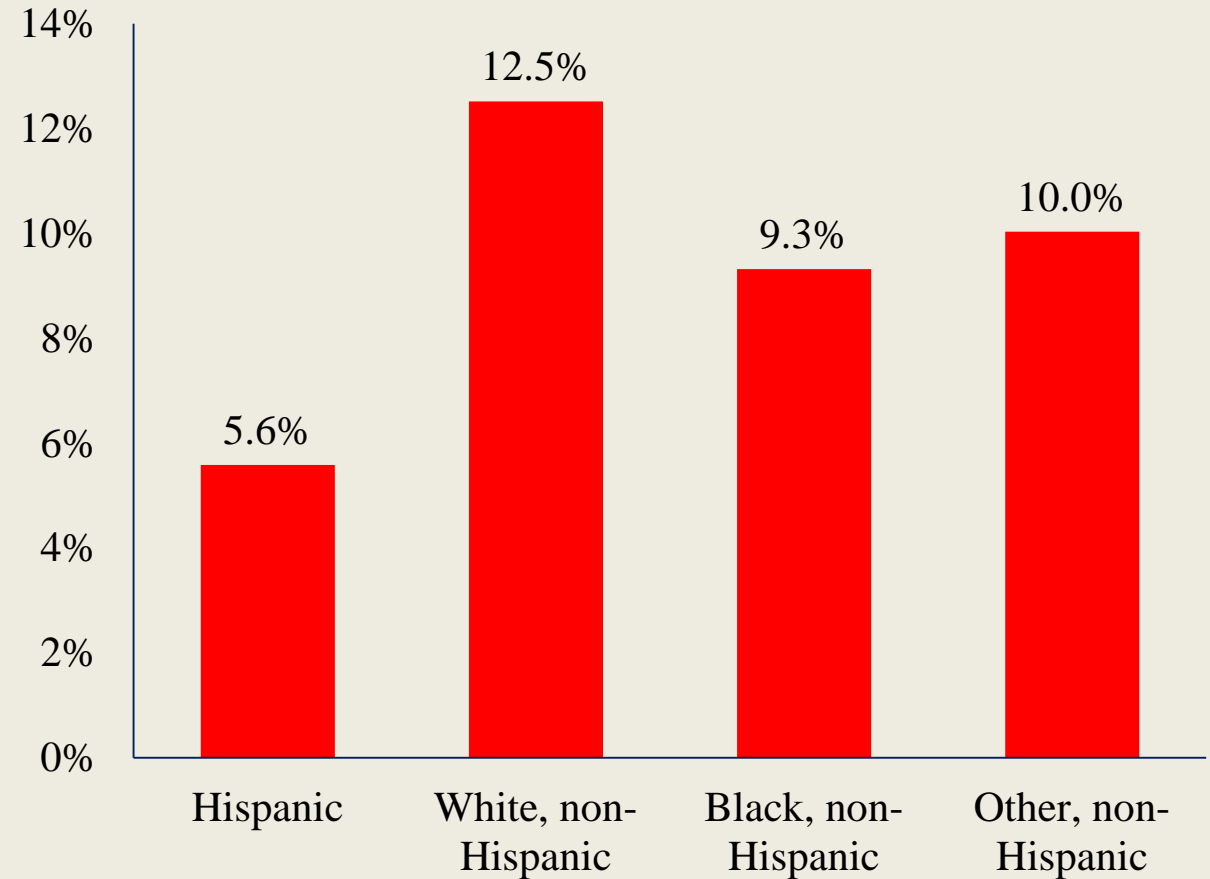
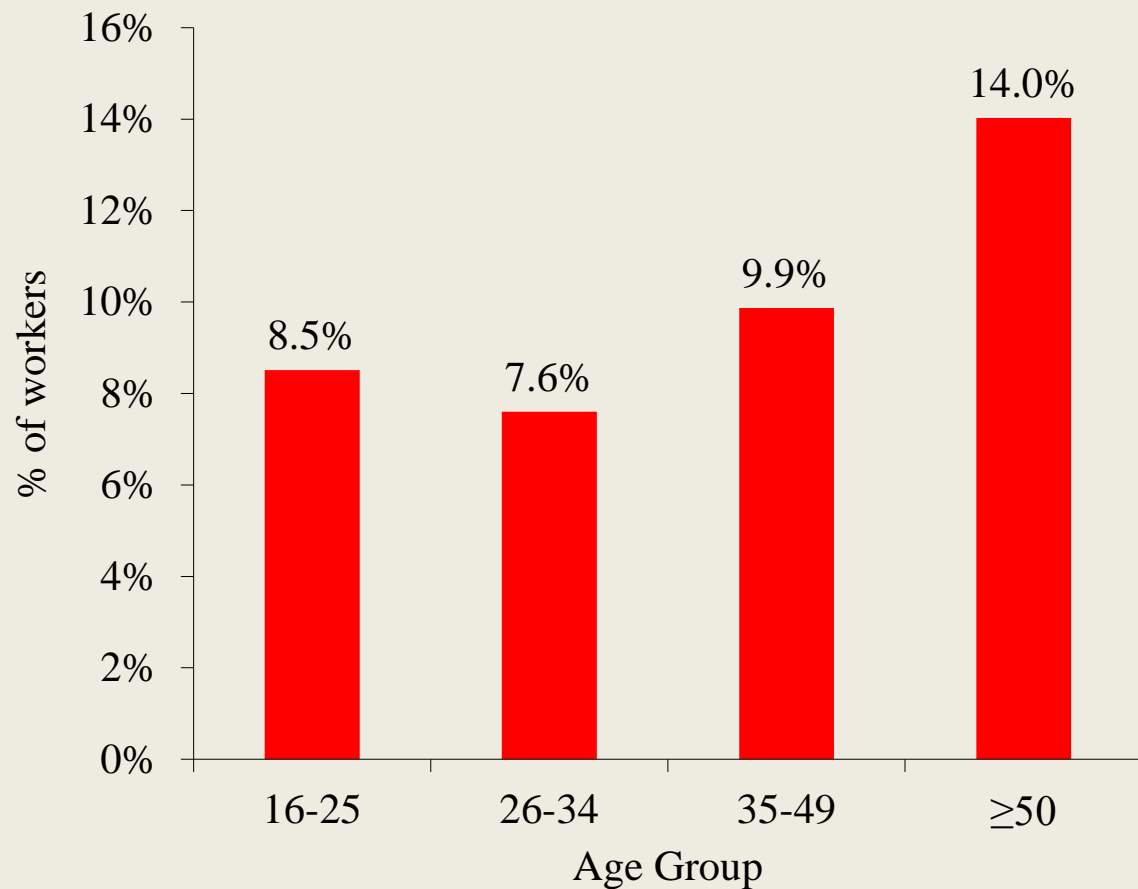
- 16+ years old
- Working in construction at least one of the three survey rounds in the year
- Regardless of occupation

One in four construction workers with work-related injuries used **prescribed opioids**, compared to one in ten of their counterparts who were not injured (average of 2011-2017)

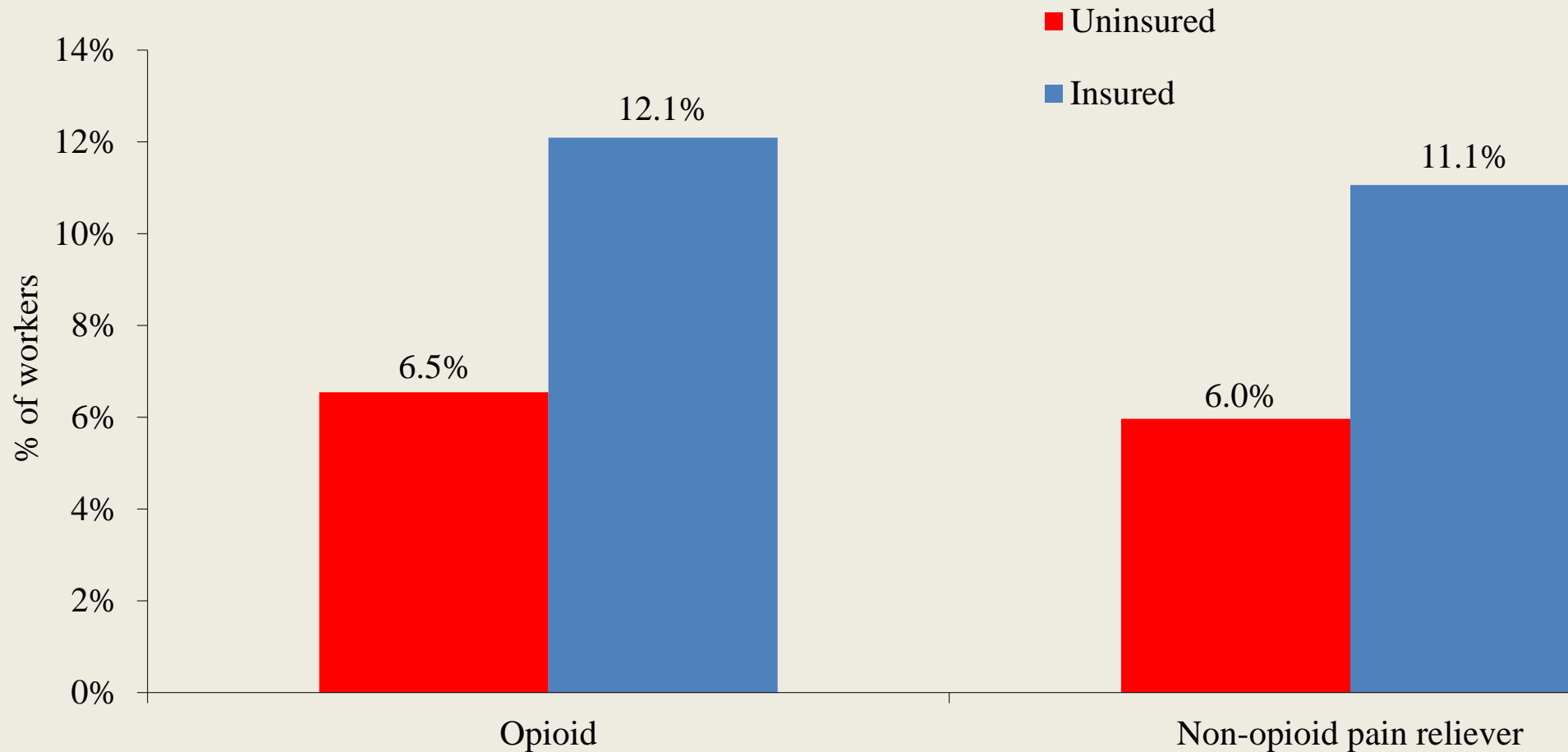


- **Work-related injury:** Medical condition resulting from an injury that occurred at work
- **Prescribed opioid:** Outpatient prescribed opioid analgesics purchased (1 or more prescription fills through the survey year) by respondents including narcotic analgesics and narcotic analgesic combinations

Older construction workers and white, non-Hispanics were more likely to use **prescribed opioids** (average of 2011-2017)



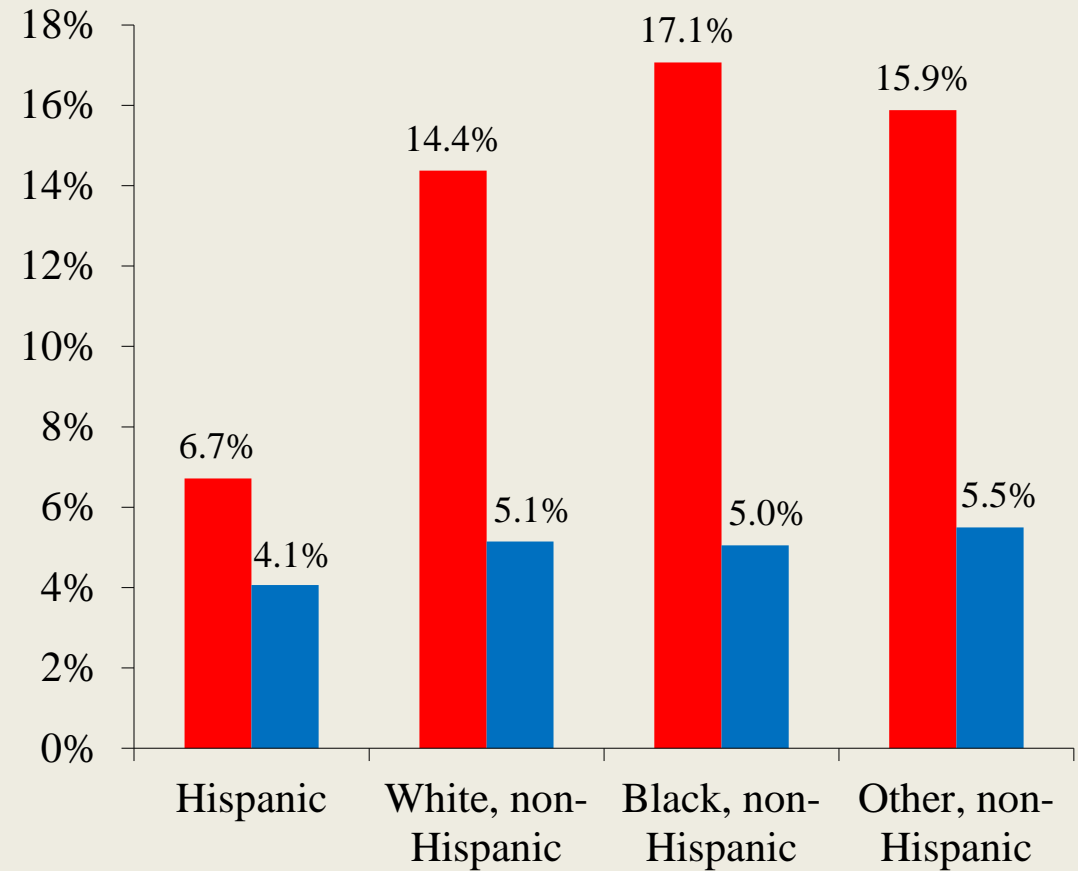
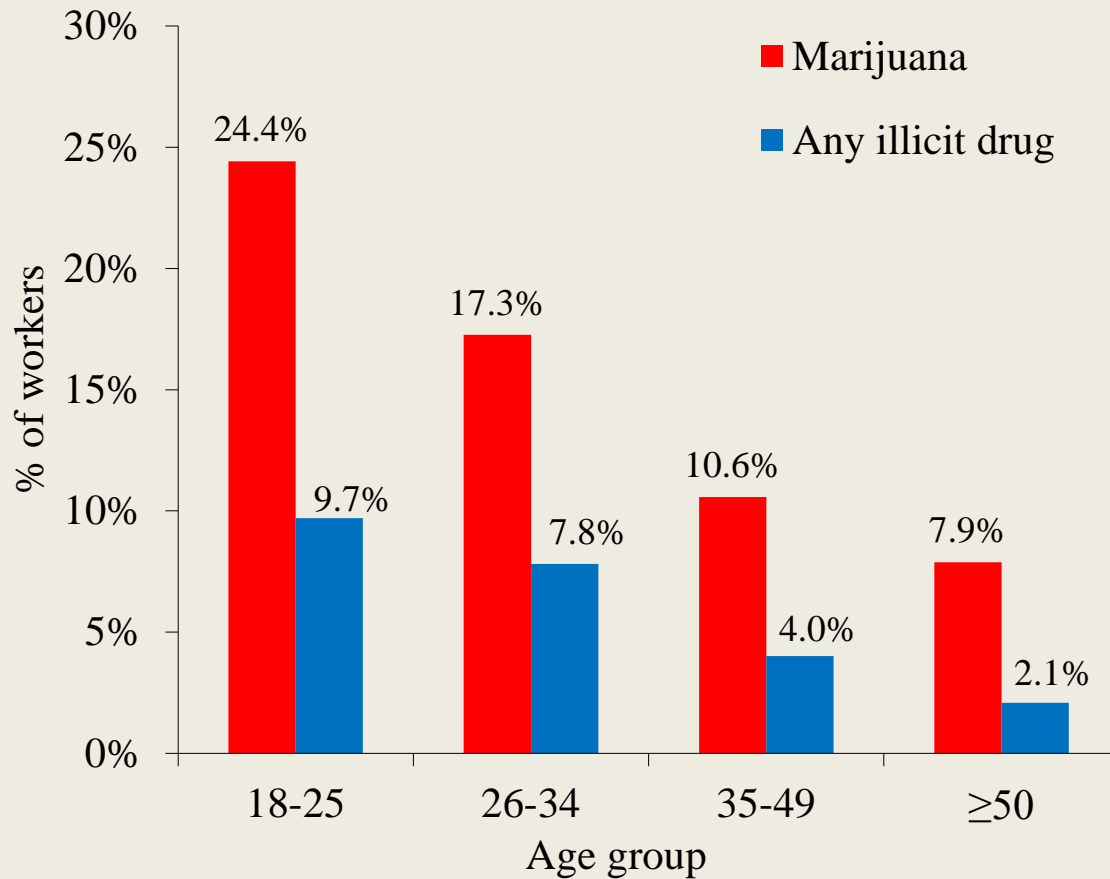
Construction workers without health insurance were less likely to use **prescribed opioids** (average of 2011-2017)



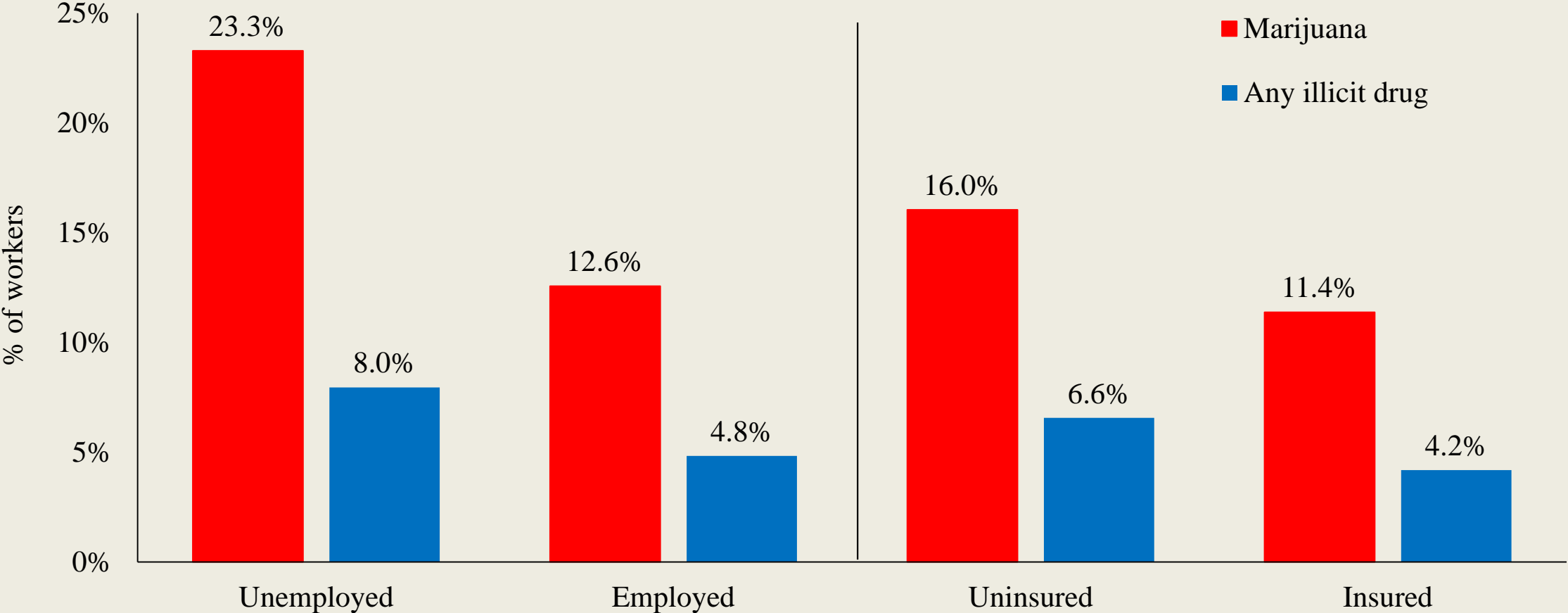
3. Illicit Drug Use

- ❖ **Data Source:** The National Survey on Drug Use and Health (NSDUH), a large national survey directed by the Substance Abuse and Mental Health Services Administration (SAMHSA), an agency in the U.S. Department of Health and Human Services (DHHS)
- ❖ **Definitions:**
 - *Any illicit drug use in the prior month* refers to the respondents who used cocaine, hallucinogens, heroin, inhalants, sedatives, tranquilizers, stimulants, and analgesics (**excluding marijuana**) within the past 30 days when the survey was conducted.
 - *Marijuana* was measured separately from other illicit drugs. The full drug list can be found online: <https://www.samhsa.gov/data/report/2014-nsduh-mrbquestionnaire>.
 - *Illicit opioid* based on respondents' answers to multiple "yes/no" questions about the use or non-use of specific drugs within that category (see Appendix III. Opioid Drug Name from the NSDUH in the QDR <https://www.cpwr.com/sites/default/files/publications/Quarter4-QDR-2019.pdf>)

Younger construction workers were more likely to use **illicit drugs**, while Hispanic workers were less likely to use such drugs (average of 2011-2014)

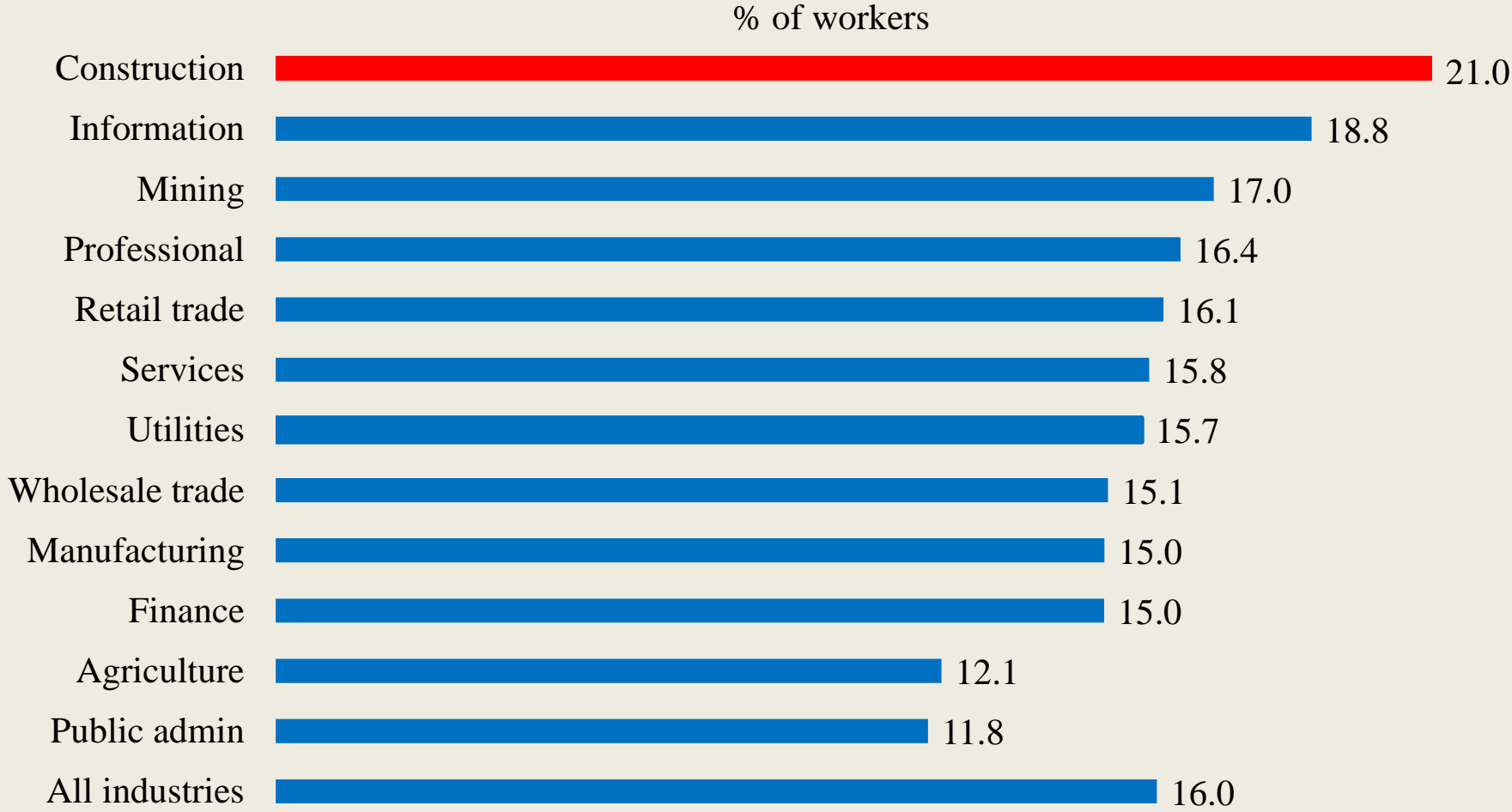


Unemployed and uninsured construction workers were more likely to use **illicit drugs** than their counterparts



Source: 2011-2014 National Survey on Drug Use and Health. Calculations by the CPWR Data Center.

Construction workers had the highest rate of **illicit opioid** use in their lifetime, 30% higher than all industries combined



Source: 2011-2014 National Survey on Drug Use and Health. Calculations by the CPWR Data Center.

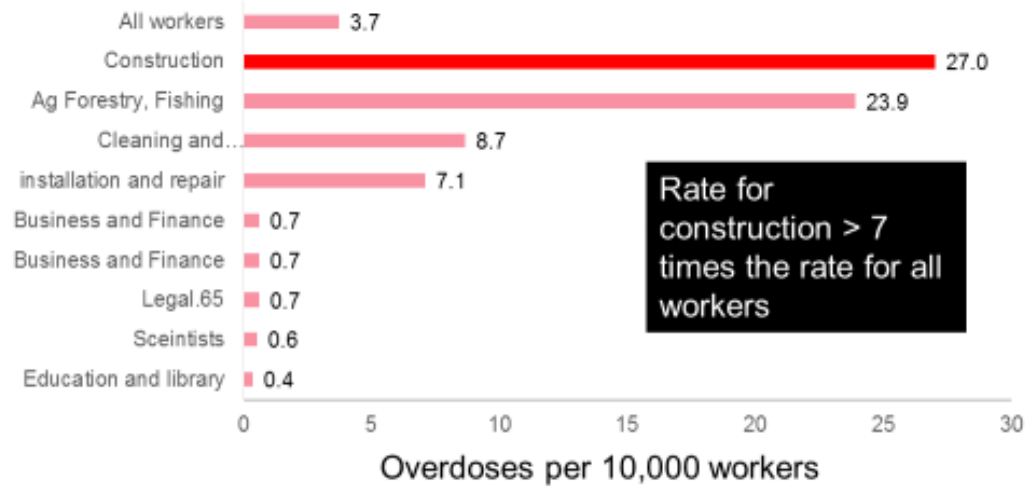
Multiple Logistic Regressions

Multivariable logistic regression of prescription opioid use (use versus nonuse) among construction workers from 2011-2017 (average), adjusted odds ratios and 95% confidence intervals for significant predictors

Variable	Comparison Groups	Adjusted OR*	95% CI (lower)	95% CI (upper)
Age	55+ years (Ref = 16-24 years)	1.63	1.01	2.64
Race/Ethnicity	Hispanic (Ref = White, non-Hispanic)	0.52	0.39	0.70
Occupation	Administrative support/Sales/Service (Ref = Management/Professional)	1.68	1.06	2.65
Average hours worked per week	<35 hours (Ref = 35-40 hours)	1.50	1.12	2.01
Insurance coverage	Uninsured (Ref = Insured)	0.60	0.41	0.89
Work-related injury	Injury (Ref = No Injury)	3.16	2.19	4.56
General physical health	Good (Ref = Excellent/Very good)	2.84	2.14	3.75
	Fair/Poor (Ref = Excellent/Very good)	2.60	1.74	3.88
Mental health	Fair/Poor (Ref = Excellent/Very good)	2.03	1.26	3.29

*All odds ratios listed are statistically significant.

Rate of Opioid Overdose Deaths by Industry, Ohio, 2010-2016*

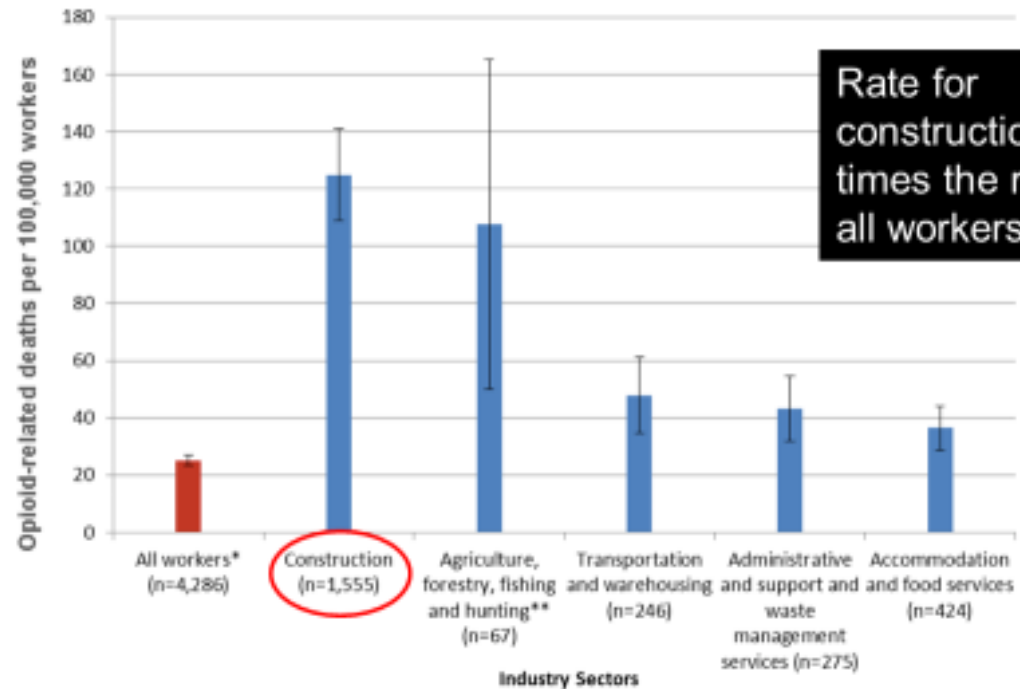


Rate for construction > 7 times the rate for all workers

* Highest and lowest rate industries. Source: Cleveland Plain Dealer

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Industry sectors with opioid-related overdose death rates significantly higher than the average rate for all workers, Massachusetts workers, 2011-2015, n=4,302



Rate for construction ~6 times the rate for all workers



Charge: Establish Path Forward In Response to Societal Crisis

Public Health Model Adopted

Ultimate goal: **Prevent** overdose death

Primary Prevention	Secondary Prevention	Tertiary Prevention
Prevent workplace injuries that cause pain	Education on effective treatment of workplace injuries and associated pain	Substance use disorder treatment
Basic awareness and destigmatization training and communication		Ongoing recovery support

Task Force: What Doesn't Work

1. Ignoring the problem
2. Ban for life drug testing policies – workers need path forward after positive drug test
3. Non-personal outreach to encourage members into treatment
4. One-size fits all treatment and recovery plans
5. Major challenge: Reconciling human needs with business side of construction.

Task Force: Priorities

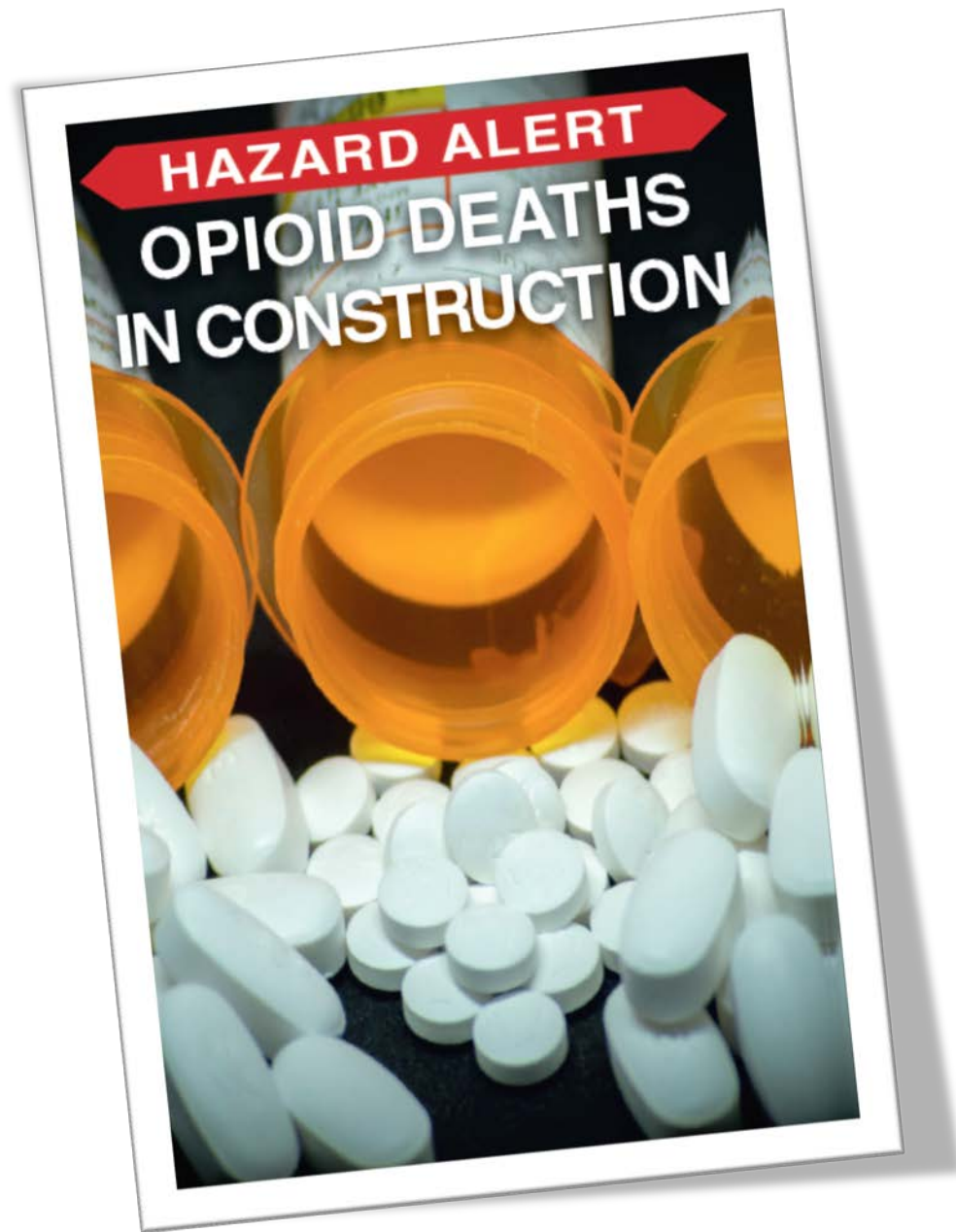
1. Resources with consistent information
2. Awareness and destigmatization education for workers and leadership
3. Guidance for a good EAP/MAP
4. Vetted treatment centers
5. Guidance for a peer mentorship program – FSL for behavioral health
6. Fast action!

CPWR Resources

Developed to Support Task Force and Public Priorities

<https://www.cpwr.com/research/opioid-resources>

- Hazard Alert
- Tool Box Talk
- Physician/Practitioner Alert
- Infographic
- Two hour awareness module



Opioid Deaths in Construction

Opioid Deaths in Construction

Construction work can result in painful injuries that are sometimes treated with prescription opioids. One in four people prescribed opioids for long-term pain become addicted¹ and opioid-related deaths are on the rise.

Chris' Story

Chris strained his back after lifting heavy materials. He tried to ignore the pain, but it wouldn't go away. Chris went to the doctor and was prescribed an opioid to treat the pain. The pills reduced the pain, but his back never got better. Chris found that he needed the pills to make it through the day. Eventually, his doctor refused to give him another prescription. Chris went to another doctor and got a new prescription. Over time his job performance and family life began to suffer. Chris went back to his doctor and asked for help. His doctor helped him to find treatment for his opioid addiction. Chris is now in recovery and using a non-addictive treatment for his pain.

- ✘ Have you known someone addicted to opioids?
- ✘ If a worker is injured and in pain, what should he or she do to avoid becoming addicted to opioids?

Remember This

- Your employer must provide a safe work environment to prevent injuries. If you see a hazard on the job, report it to your supervisor or foreman.
- Follow safe work practices to prevent injuries, such as getting help when lifting heavy materials.
- If you are injured, talk to your doctor about non-addictive medications or physical therapy to treat the pain.
- Opioids should only be prescribed when necessary.
- Addiction is a chronic disease that can be helped if you find the right medication to manage your pain.
- Check with your doctor to see if they have a pain management program or employee assistance program.
- Call this confidential hotline for help about treatment at 1-800-662-HELP (4357) or go online at <https://resources.facingaddiction.org>.



How can we stay safe today?
What will we do at the worksite to prevent an injury?

1. _____
2. _____

¹Centers for Disease Control & Prevention. Promoting Safer and More Effective Pain Management. https://www.cdc.gov/drugoverdose/pdf/Guidelines_Factsheet-Patients-a.pdf

- ✘ Report hazards to your supervisor or foreman to prevent injuries.
- ✘ If you're injured, opioids are the last option. Talk to your doctor about non-addictive medications or other options to treat the pain.
- ✘ Need help with addiction?
Call this confidential hotline for help: 1-800-662-4357



Physicians'/Providers' Alert:

Pain Management for Construction Workers

This Alert was developed to help ensure that all construction workers who visit a doctor or other healthcare provider because of pain from an injury are aware of treatment options and understand the potential risks of addiction associated with using prescription opioids. **Please:**

- (1) read and print this Alert;**
- (2) keep the “Tips for Talking with Your Doctor”; and**
- (3) fill in the “To My Doctor” form and give it to your doctor to include in your medical records.**

Tips for Talking with Your Doctor: *What You Need to Know Before Accepting an Opioid Prescription*

Opioids, such as Fentanyl (Duragesic®), Hydrocodone (Vicodin®), Oxycodone (OxyContin®), Oxymorphone (Opana®), Hydromorphone (Dilaudid®), Meperidine (Demerol®), Diphenoxylate (Lomotil®), morphine, and codeine are often prescribed to help manage pain. Since these medications can be addictive, they should only be used if other treatment options are not effective. When prescribed, they should be used for the shortest time possible.

Don't be a statistic. Protect yourself from an opioid overdose.



Construction work can result in painful injuries that are often treated with prescription opioids.

Opioids are addictive and should be the last option to treat your pain. Talk to your doctor about non-addictive medications.



REMEMBER: Addiction is an illness that can be treated.

Call this confidential national hotline:

1-800-662-HELP (4357)

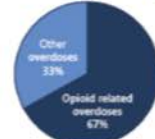
Visit: Facing Addiction — <https://resources.facingaddiction.org/>

1 out of 4 people prescribed opioids for long-term pain become addicted.*



*Centers for Disease Control and Prevention, Promoting Safer and More Effective Pain Management. <https://tinyurl.com/overdosefacts>

In 2016 alone, more than 63,000 people died in the U.S. from an overdose — over **42,000** of which involved an opioid.*



*Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/>

Overdose deaths that occur on the job are on the rise.*



*Bureau of Labor Statistics, Census of Fatal Occupational Injuries, News Release, 2016. <https://www.bls.gov/news.release/foia.no.htm>

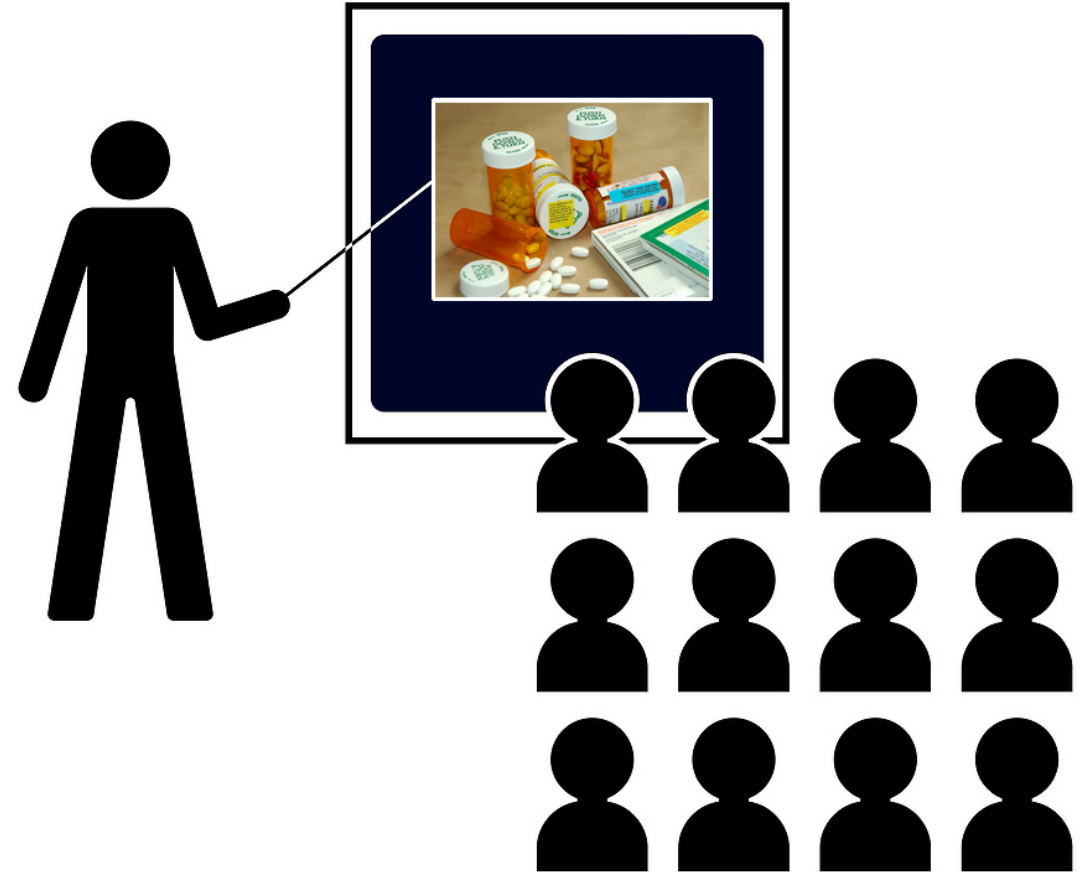
Course Objectives

1. Improve knowledge about opioids and related substance use and mental health issues:
 - What are opioids and how they work
 - Why and how construction workers have been so affected by the epidemic
 - How to Prevent, Treat and Recover from Opioid Use Disorder

2. Inspire and motivate trainees to take action:
 - Get more information and share it
 - Identify risk factors and take protective actions
 - Practice a culture of health and wellness
 - Support our brothers and sisters in the trades who are struggling

Topics Covered

- What's the Problem?
- Understanding Opioids
- Prevention and Harm Reduction
- Understanding Treatment and Recovery
- Overcoming our Common Struggles



CPWR Next Steps

Training Program Rollout, Evaluation, and Improvement

New Communications Research to Inform Framing
Prevention Activities

Deep Dive into Peer Support Networks

Questions?

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