

Mental Health Trends in the Construction Industry: A Look at Anxiety, Depression, Psychological Distress, Suicides, and Overdoses

Amber Brooke Trueblood, DrPH, Christopher Rodman, MPH, Raina D. Brooks, MPH, William Harris, MS, Jessica Bunting, MPH, Cora Roelofs, ScD, Rick Rinehart, ScD¹

OVERVIEW

Construction has the [highest overdose death rate](#) and [second highest suicide death rate](#) of all American industries. Previous studies have found that among people with an industry reported on their death certificate, [23.1% of overdoses](#) and [17.9% of suicides](#) were in construction. Yet only [7.5% of the workforce](#) is in the construction industry, underscoring its disproportionate burden of *suicides* and *overdoses*.

A [recent preliminary study](#), reported that nearly half of construction workers surveyed had experienced or were currently experiencing *depression*, and that work-related factors are strongly associated with poor mental health. Research has identified [work-related factors](#) such as employment instability/insecurity, job demands, lack of support, long work hours, hazardous work, poor psychosocial and safety climate, injuries, and discrimination (e.g., [bullying or harassment](#)). This Data Bulletin examines mental health trends among construction workers, including *anxiety*, *depression*, *serious psychological distress*, seeing a *mental health professional*, medication use, suicides, and overdoses.

We used three data sources in the Data Bulletin. The first was the National Health Interview Survey (NHIS), which provided data on self-reported anxiety, depression, psychological distress, medication use, and seeing a mental health professional (Charts 1-8). It should be noted that estimates before and after 2018 may not be directly comparable due to [survey redesign](#). The newer design includes a [rotating core](#) of questions that did not collect industry and occupation information in 2019 and 2022. Detailed mental health assessment questions are only asked in the years industry and occupation are not collected. The latest year of data included in the Data Bulletin is 2021. NHIS 2020 data collection and sample sizes were impacted due to the [COVID-19 pandemic](#).

Second, deaths resulting from suicides and overdoses come from the National Center for Health Statistics National Vital Statistics System (NVSS) Mortality Multiple Cause-of-Death data (Charts 9-12). Suicide and overdose deaths as the *cause of death* were identified using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes that are recorded on death certificates as the cause of death. See Definitions on pages 5 and 6 for a detailed explanation of terms used in this Data Bulletin. NVSS data do not capture employment status (full-time, unemployed, retired, etc.) at time of death but indicate the industry in which the decedent usually worked. Construction workers are defined in NVSS data as those whose usual industry was construction aged 16 to 64 years old, including individuals currently employed, retired, or no longer in the workforce. Fatal work injuries (Chart 9) come from the third data source, the U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

¹ Correspondence to: datacenter@cpwr.com.

THIS ISSUE

This issue examines U.S. construction worker mental health trends, including anxiety, depression, serious psychological distress, seeing a mental health professional, medication use, suicides, and overdoses.

KEY FINDINGS

In 2021, 15.4% of construction workers reported having anxiety or depression, based on symptoms or medication.

Chart 3

A majority (84.3%) of construction workers who reported anxiety or depression did not see a mental health professional in the last 12 months.

Chart 7

More than 1 in 6 people aged 16 to 64 years old who died by overdose in the U.S. were construction workers.

There were 5.2K suicide deaths among construction workers in 2022.

Chart 9

Synthetic opioids were involved in 3 out of 4 overdose deaths among construction workers in 2022.

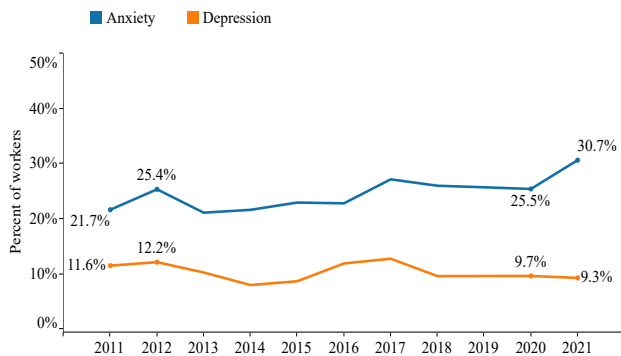
Chart 12

NEXT DATA BULLETIN

Hispanic Workers in Construction: Employment, Business Owner, and Injury Trends

In 2021, 30.7% of construction workers responding to the NHIS felt anxious at least once per month, a 41.5% increase since 2011 (21.7%; Chart 1). During that year, 9.3% of construction workers felt depressed at least once per month in 2021, a 19.8% decrease since 2011 (11.6%). Between 2020 and 2021, the prevalence of feeling anxious rose 20.4% (25.5% to 30.7%), while the prevalence of feeling depressed decreased 4.1% (9.7% to 9.3%). The COVID-19 pandemic was found to impact [mental health](#) from 2020 to 2021.

1. Prevalence of feelings of anxiety or depression at least once a month* among construction workers, 2011-2021[^]



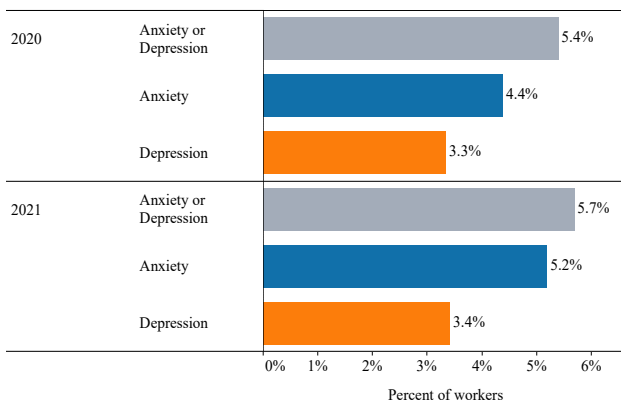
Source(s): National Health Interview Survey, 2010-2018, 2020-2021.

*Chart includes anxious or depressed feelings at any level (a little, a lot, or somewhere in between) at least monthly.

[^]Data is estimated for 2019 by taking an average of 2018 and 2020. Chart displays average of 2018 and 2020 as 2019.

In 2021, 5.7% of construction workers reported currently taking anxiety or depression medication, with 5.2% taking anxiety medication and 3.4% taking depression medication (Chart 2). There were increases from 2020 to 2021 in the prevalence of those currently taking medications for anxiety or depression (+5.6%, 5.4% to 5.7%), anxiety (+18.2%; 4.4% to 5.2%), and depression (+3.0%; 3.3% to 3.4%). A small percentage (1.8%) of those who were not currently taking anxiety or depression medication reported taking another mental health-related medication in the past 12 months (data not shown).

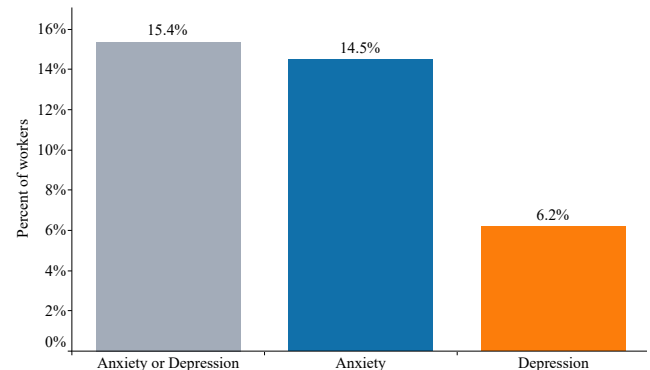
2. Prevalence of taking anxiety or depression medication among construction workers, 2020-2021



Source: National Health Interview Survey, 2021.

We then examined anxiety or depression based on reported feelings and/or medication use. Overall, 15.4% of construction workers reported anxiety or depression in 2021, with 14.5% reporting anxiety and 6.2% reporting depression (Chart 3). These [prevalence estimates](#) are similar to those reported in 2020.

3. Prevalence of anxiety or depression among construction workers, 2021*

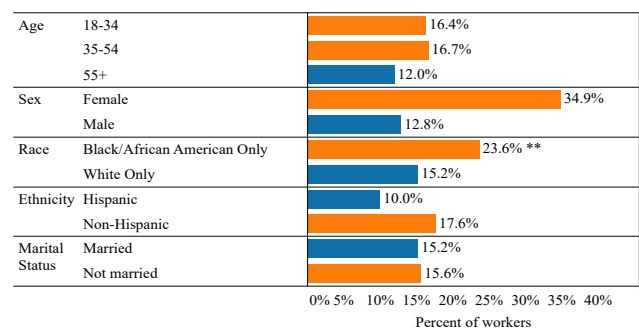


Source: National Health Interview Survey, 2021.

*Anxious/depressed feelings at least weekly with a level of "a lot" or "somewhere between a little and a lot" and/or reported medication for anxiety/depression.

Anxiety or depression based on symptoms or medication prevalence by demographics (Chart 4) and other characteristics (Chart 5) in 2021 were then analyzed.. Construction workers who were 18 to 34 years old (16.4%), 35 to 54 years old (16.7%), female (34.9%), black or African American (23.6%), non-Hispanic (17.6%), and not married (15.6%) had a higher prevalence of anxiety or depression compared to all construction workers (15.4%, Chart 4).

4. Prevalence of anxiety or depression among construction workers by demographics, 2021*[^]



Source: National Health Interview Survey, 2021.

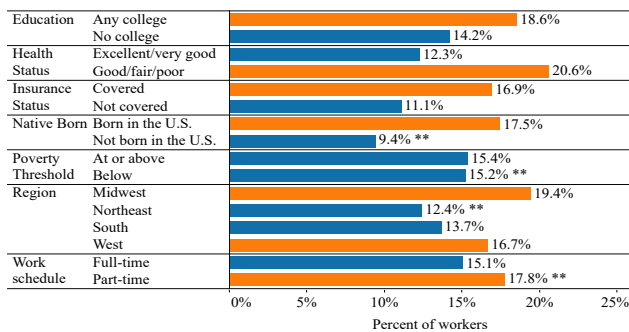
*Anxious/depressed feelings at least weekly with a level of "a lot" or "somewhere between a little and a lot" and/or reported medication for anxiety/depression.

[^]Orange bars indicate a higher prevalence than all construction workers (15.4%).

** N<30 interpret finding with caution. Excluded values with N<15.

Among other characteristics, workers with any college (18.6%), good/fair/poor health (20.6%), insurance (16.9%), born in the U.S. (17.5%), from the Midwest (19.4%), from the West (16.7%), and worked part-time (17.8%) had a higher prevalence of anxiety or depression than all construction workers (15.4%; Chart 5). [Prior research](#) has found those without insurance were most likely to not receive care, such as medications.

5. Prevalence of anxiety or depression among construction workers by characteristics, 2021^{*^}



Source: National Health Interview Survey, 2021.

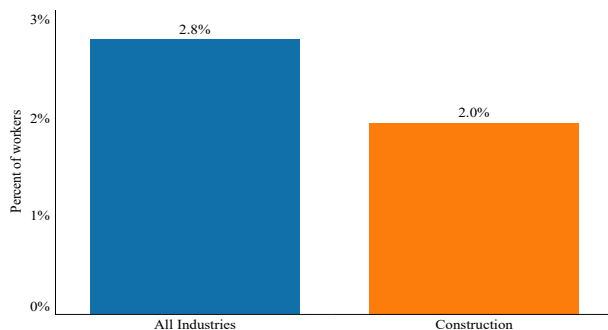
^{*}Anxious/depressed feelings at least weekly with a level of “a lot” or “somewhere between a little and a lot” and/or reported medication for anxiety/depression.

[^] Orange bars indicate a higher prevalence than all construction workers (15.4%).

** N<30 interpret finding with caution. Excluded values with N<15.

Next, the prevalence of construction workers experiencing serious psychological distress was analyzed (Chart 6). In 2021, 2.0% were found to be experiencing serious psychological distress, compared to 2.8% of workers in all industries.

6. Prevalence of experiencing serious psychological distress among construction workers, 2021



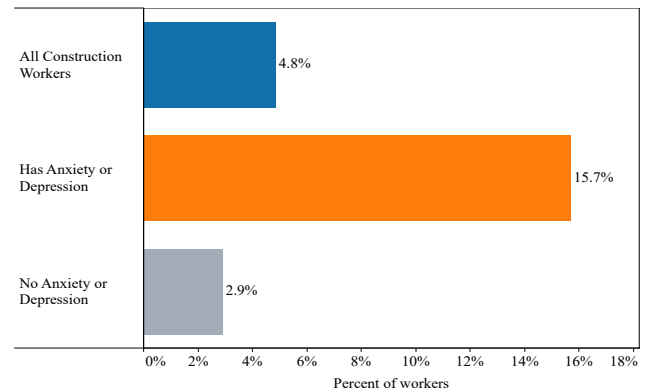
Source: National Health Interview Survey, 2021.

If you or someone you know needs immediate help, **call or text 988** for access to trained crisis counselors.



Overall, 4.8% of construction workers reported seeing a mental health professional in the past 12 months (Chart 7). Construction workers with anxiety or depression were more likely to report seeing a mental health professional in the past 12 months than those without (15.7% versus 2.9%). Overall, 84.3% of construction workers with anxiety or depression based on symptoms or medication did not see a mental health professional in the past 12 months.

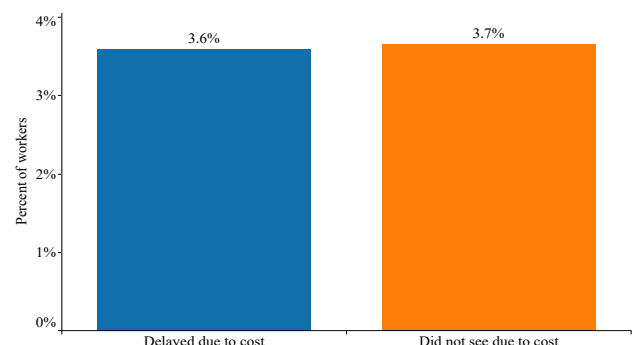
7. Percentage of construction workers who reported seeing a mental health professional in past 12 months by anxiety or depression status, 2021



Source: National Health Interview Survey, 2021.

When examining delaying or not seeing a mental health professional, 3.6% of construction workers reported delaying care due to the cost and 3.7% of construction workers reported not seeing a professional due to the cost (Chart 8).

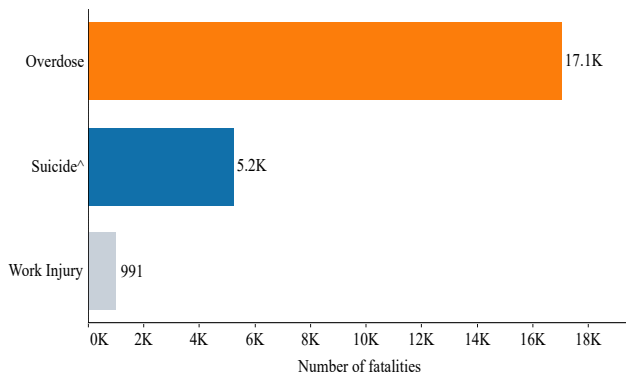
8. Construction workers reporting delaying or not seeing a mental health professional due to cost in the past 12 months, 2021



Source: National Health Interview Survey, 2021.

Overdose and suicide related deaths in construction were analyzed. In 2022, there were 17.2 times as many overdose deaths (n=17.1K) as fatal work injuries (n=991; Chart 9). Of all those aged 16 to 64 who died by overdose, more than 1 in 6 (17.1%) worked in construction (data not shown). Among construction workers, there were 5.3 times as many suicide deaths (n=5.2K) as fatal work injuries. Overall, 4.2% (n=221) of suicide deaths resulted from an overdose (data not shown). Of those aged 16 to 64 who died by suicide, almost 1 in 7 was a construction worker (data not shown).

9. Fatalities by cause among construction workers aged 16 to 64 years old, 2022*



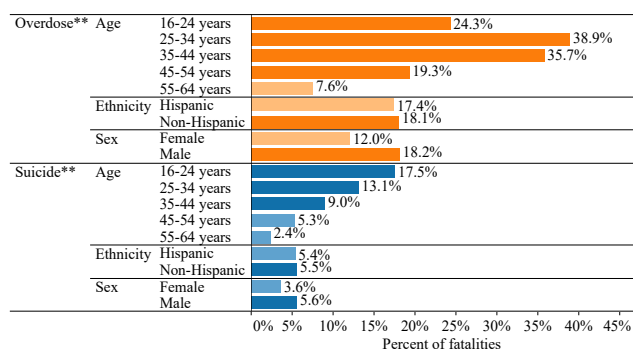
Source: National Center for Health Statistics, 2022 Mortality Multiple Cause-of-Death and U.S. Bureau of Labor Statistics, 2022 Census of Fatal Occupational Injuries.

* Work injury data population does not align 1:1 with mortality data. Interpret with caution.

^ Suicides include overdoses due to overlapping definitions.

Non-Hispanic and male workers had slightly higher percentages of overdose and suicide deaths compared to all construction workers (Chart 10). By age, overdose deaths were 2.2 times higher among those 25 to 34 years old than all construction workers (38.9% versus 18.0%). Meanwhile, suicide deaths were 3.2 times higher among construction workers aged 16 to 24 years old than all construction workers (17.5% versus 5.5%).

10. Overdose and suicides as a percentage of all deaths by demographic, 2022*^



Source: National Center for Health Statistics, 2022 Mortality Multiple Cause-of-Death.

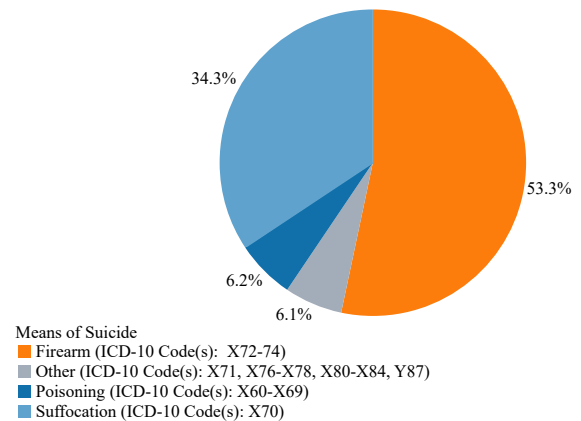
* Calculated as Number of Overdose or Suicides in [Demographic Group] / Number of Deaths in [Demographic Group].

^ Suicides include overdoses due to overlapping definitions.

**Bold colors indicate demographic group percentage is greater than that of all workers [Overdose=18.0% and Suicide=5.5%].

Next, the *means* by which a person died by suicide were examined (Chart 11). *Firearms* accounted for 53.3% of suicides among construction workers in 2022. The second leading means was *suffocation* which accounted for 34.3% of suicides. This follows closely to *means used in all suicides* in the United States, where 55% resulted from a firearm and 25% resulted from suffocation in 2022.

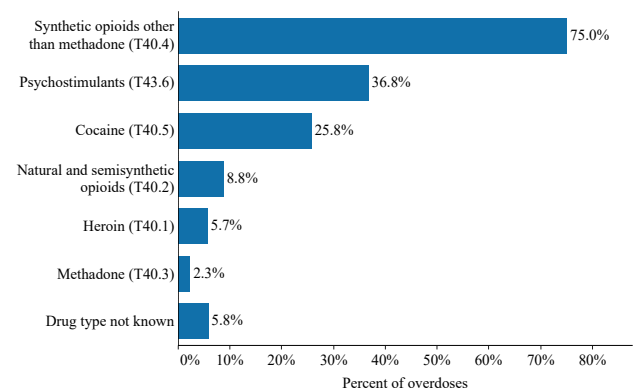
11. Means of suicide among construction workers aged 16 to 64 years old, 2022



Source: National Center for Health Statistics, 2022 Mortality Multiple Cause-of-Death.

The *drug types* involved in overdoses were explored (Chart 12). Synthetic opioids were involved in three out of four overdose deaths in 2022, including methadone (2.3%) and other synthetic opioids (e.g., fentanyl; 75.0%). Psychostimulants (e.g., methamphetamines, ecstasy) were involved in over a third of overdoses (36.8%). The *drug type estimates* were similar in 2020.

12. Drug type involvement for overdoses among construction workers aged 16 to 64 years old, 2022



Source: National Center for Health Statistics, 2022 Mortality Multiple Cause-of-Death.

* May sum to greater than 100% as more than one type of drug could have been involved in an overdose.

Mental health continues to disproportionately impact workers in the construction industry, with approximately 1 in 6 (15.4%) reporting anxiety or depression, and of these workers, only 15.7% reported seeing a mental health professional in the past 12 months. Overall, 4.8% of construction workers reported seeing a mental health professional over the last year. In comparison, a recent Gallop Poll found that [23% of adults](#) in the U.S. saw a mental health professional in the last month. [A 2021 report](#) highlights the top four reasons someone may not seek care: shame/stigma, fear of judgment by peers, fear of job consequences, and a lack of knowledge on how to access care. Getting medical and professional help is only part of the answer. Work-related stressors such as job precarity, long working hours, injuries, and poor safety climate are [highly correlated](#) with symptoms of anxiety and depression. To prevent mental health issues, the construction industry must address root causes, including work-related factors. Future research addressing modifiable workplace stressors and hazards that affect mental health is imperative to create safer worksites.

More than half of construction firms surveyed by [Dodge Construction Network in 2023](#) indicated they wanted more information or training on mental health, suicide, and overdoses. In response, CPWR recently launched the [Resources and Effective programs Addressing Suicides and Opioids Now \(REASON\)](#) newsletter to highlight solutions, research, and free resources available to help the construction industry prevent suicides and deaths from opioids. CPWR also has [several resources](#) to address growing mental health concerns, including a [discussion-based training to improve worker resilience](#), an [opioid hazard awareness training](#), [Toolbox Talks](#), and [several previously recorded webinars on suicide prevention and opioids](#). NIOSH offers resources on [suicide prevention](#), [opioids in the workplace](#), and [stress at work](#), and OSHA publishes materials on [preventing suicides in construction](#) and [workplace stress](#). Additionally, the [Construction Industry Alliance for Suicide Prevention \(CIASP\)](#) provides a host of resources aiming to create a zero-suicide industry, including workplace suicide prevention programs and tools.

ACCESS THE CHARTS & MORE

View the [charts](#) in PowerPoint and the [data](#) underlying the charts in Excel. Downloading will start when you click on each link. These files can also be found under the Data Bulletin at: <https://www.cpwr.com/research/data-center/data-reports/>.

DEFINITIONS

- **Anxiety** – measured using two definitions as defined below.
 - Reported anxious feelings at any level at least monthly (Chart 1).
 - Reported anxious feelings at least once a week with a level of “a lot” or “somewhere between a little and a lot” and/or reported medication for anxiety (Charts 3-5).
- **Anxiety or depression** – reported anxious or depressed feelings at least once a week with a level of “a lot” or “somewhere between a little and a lot” and/or reported medication for anxiety/ depression (Charts 3-5).
- **Anxiety Medication** – reported currently taking medication for feelings of worry, nervousness, or anxiety.
- **Anxiety or Depression Medication** – reported currently taking either anxiety or depression medication.
- **Cause of death** – the specific condition that caused the death based on the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM [“ICD-10”]) diagnosis Code.
- **Depression** – measured using two definitions as defined below.
 - Reported depressed feelings at any level at least monthly (Chart 1).
 - Reported depressed feelings at least once a week with a level of “a lot” or “somewhere between a little and a lot” and/or reported medication for depression (Charts 3-5).
- **Depression Medication** – reported currently taking medication for depression.
- **Drug Type** – the type of drug involved in the overdose determined using the multiple-cause-of-death ICD-10 code, coded as: heroin (T40.1), natural and semisynthetic opioids (T40.2), methadone (T40.3), synthetic opioids other than methadone (T40.4), cocaine (T40.5), and psychostimulants (T43.6). An overdose could involve more than one drug type.
- **Means of Suicide** – specific methods of suicide identified using the cause-of-death codes.
 - **Firearm** – a death with one of the following ICD-10 codes: X72-X74.
 - **Poisoning** – a death with one of the following ICD-10 codes: X60-X69. ICD-10 codes X60-X64 are intentional, self-poisonings by drugs and are included in the overdose definition below.
 - **Suffocation** – a death with X70 for the ICD-10 code.
 - **Other** – a death with a suicide ICD-10 code not falling under firearm, suffocation, or poisoning. Including X71, X76-X78, X80-X84, and Y87.
- **Mental Health Professional** – a counselor, psychiatrist, psychologist, or social worker.
- **Overdose** – a death with one of the following ICD-10 codes: X40-X44, X60-X64, X85, and Y10-Y14. ICD-10 codes X60-X64 are intentional, self-poisonings by drugs which are included in the poisoning means and suicide definitions.

- **Serious Psychological Distress** – reported if a respondent experienced serious psychological distress in the past 30 days using the Kessler 6 Scale instrument.
- **Suicide** – a death with one of the following ICD-10 codes U03, X60–X84, and Y87. ICD-10 codes X60–X64 are intentional, self-poisonings by drugs which are included in the poisoning means and overdose definitions.

DATA SOURCES

Centers for Disease Control and Prevention National Center for Health Statistics, 2022 U.S. Mortality Multiple Cause File. https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm#Mortality_Multiple.

National Center for Health Statistics (NCHS), 2011–2021 National Health Interview Survey (NHIS). <https://www.cdc.gov/nchs/nhis/index.htm>.

U.S. Bureau of Labor Statistics (BLS), 2022 Census of Fatal Occupational Injuries (CFOI) Public Use Data. <https://www.bls.gov/iif/>.

REFERENCES

Billock, R. M., Steege, A. L., & Miniño, A. [2023]. Drug overdose mortality by usual occupation and industry: 46 US states and New York City, 2020. MMWR. Morbidity and Mortality Weekly Report, 72. <https://www.cdc.gov/nchs/data/nvsr/nvsr72/nvsr72-07.pdf>.

Brenan, M. [2022]. Americans' Reported Mental Health at New Low; More Seek Help. Gallup. <https://news.gallup.com/poll/467303/americans-reported-mental-health-new-low-seek-help.aspx>.

Centers for Disease Control and Prevention. [2024]. Suicide Data and Statistics. <https://www.cdc.gov/suicide/facts/data.html>.

CPWR-The Center for Construction Research and Training. [n.d.]. Building Resilience: Training Activities to Promote Construction Worker Well-being. https://www.cpwr.com/wp-content/uploads/WB-Construction_Worker_Resilience_Training.pdf.

CPWR-The Center for Construction Research and Training. [2023]. Construction Worker Mental Health During the COVID-19 Pandemic. <https://www.cpwr.com/wp-content/uploads/DataBulletin-January2022.pdf>.

CPWR-The Center for Construction Research and Training. [2023]. Labor Force Characteristics in Construction and All Industries, 2011–2022. <https://www.cpwr.com/wp-content/uploads/DataBulletin-September2023.pdf>.

CPWR-The Center for Construction Research and Training. [n.d.]. Mental Health in the Construction Industry. <https://www.cpwr.com/research/research-to-practice-r2p/r2p-library/other-resources-for-stakeholders/mental-health-addiction/>.

CPWR-The Center for Construction Research and Training. [n.d.]. Newsletter Sign-up: Preventing Suicide and Opioids Deaths. <https://www.cpwr.com/mental-health-newsletter-sign-up/>.

CPWR-The Center for Construction Research and Training. [n.d.]. Opioid Awareness Training Program. <https://www.cpwr.com/research/research-to-practice-r2p/r2p-library/other-resources-for-stakeholders/mental-health-addiction/opioid-resources/opioid-awareness-training-program/>.

Construction Industry Alliance for Suicide Prevention (CIASP). [n.d.]. <https://www.preventconstructionsuicide.com/>.

Dennerlein, J. T., Eyllon, M., Garverich, S., Weinstein, D., Manjourides, J., Vallas, S. P., & Lincoln, A. K. [2021]. Associations between work-related factors and psychological distress among construction workers. Journal of occupational and environmental medicine, 63(12), 1052–1057. <https://journals.lww.com/joem/abstract/2021/12000/>.

Dodge Construction Network. [2023]. SmartMarket Report Safety Management in the Construction Industry 2023. https://www.cpwr.com/wp-content/uploads/RR-Dodge_Safety_Management_SmartMarket_2023.pdf.

Gruttadaro, D., & Beyer, C. (2021). Mental Health and Well-being in the Construction Industry. <https://workplacementalhealth.org/getmedia/f59c14bc-684c-40bf-8c05-ea958c321bbc/Mental-Health-and-Well-being-in-the-Construction-Industry>.

Harris, W., Trueblood, A. B., Yohannes, T., Rodman, C. P., & Rinehart, R. (2024). Suicides among construction workers in the United States, 2021. American journal of industrial medicine. <https://onlinelibrary.wiley.com/doi/10.1002/ajim.23632>.

Mehany, M. S. H. M., Fisher, G. G., Thiese, M., & Kumar, S. [2024]. Assessment of construction workers' mental health to improve wellbeing. https://www.cpwr.com/wp-content/uploads/SS2023_Construction-Worker-Mental-Health-Assessment.pdf.

National Center for Health Statistics. [2023]. National Health Interview Survey 2019 Questionnaire Redesign. https://www.cdc.gov/nchs/nhis/2019_quest_redesign.htm.

National Center for Health Statistics. [2023]. National Health Interview Survey Sample Adult Questionnaire. <https://www.cdc.gov/nchs/data/nhis/Sample-Adult-Questionnaire.pdf>.

National Center for Health Statistics. [2021]. National Health Interview Survey: What's different about the 2020 NHIS data?. <https://www.cdc.gov/nchs/nhis/2020nhisdata.htm>.

National Institute for Occupational Safety and Health. [2024]. About Stress at Work. <https://www.cdc.gov/niosh/stress/about/index.html>.

National Institute for Occupational Safety and Health. [2024]. Suicide and Occupation. <https://www.cdc.gov/niosh/stress/suicide/index.html>.

National Institute for Occupational Safety and Health. [2024]. Opioids. <https://www.cdc.gov/niosh/substance-use/opioids-and-work/index.html>.

Occupational Safety and Health Administration. [n.d.]. Preventing Suicides in Construction. <https://www.osha.gov/preventingsuicides/>.

Occupational Safety and Health Administration. [n.d.]. Workplace Stress. <https://www.osha.gov/workplace-stress>.

Panchal, N., Rae, M., Saunders, H., Cox, C., Rudowitz, R. [2022]. How does use of mental health care vary by demographics and health insurance coverage?. <https://www.kff.org/mental-health/issue-brief/how-does-use-of-mental-health-care-vary-by-demographics-and-health-insurance-coverage/>.

Ross, V., Mathieu, S. L., Wardhani, R., Gullestrup, J., & Kölves, K. [2021]. Factors associated with workplace bullying and the mental health of construction industry apprentices: A mixed methods study. *Frontiers in psychiatry*, 12, 629262. <https://doi.org/10.3389/fpsyt.2021.629262>.

Sussell, A., Peterson, C., Li, J., Miniño, A., Scott, K., Stone, D.M. [2023]. Suicide rates by industry and occupation—national vital statistics system, United States, 2021. *MMWR. Morbidity and Mortality Weekly Report*, 72. <https://www.cdc.gov/mmwr/volumes/72/wr/pdfs/mm7250a2-H.pdf>.

Vahratian, A., Blumberg, S.J., Terlizzi, E.P., & Schiller, J.S. [2021]. Symptoms of anxiety or depressive disorder and use of mental health care among adults during the COVID-19 pandemic—United States, August 2020–February 2021. *MMWR. Morbidity and mortality weekly report*, 70. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8022876/>.

ABOUT THE CPWR DATA CENTER

The CPWR Data Center is part of CPWR—The Center for Construction Research and Training. CPWR is a 501(c)(3) nonprofit research and training institution created by NABTU, and serves as its research arm. CPWR has focused on construction safety and health research since 1990. The Data Bulletin, a series of publications analyzing construction-related data, is part of our ongoing surveillance project funded by the National Institute for Occupational Safety and Health (NIOSH).

Besides cpwr.com, visit CPWR's other online resources to help reduce construction safety and health hazards:

- Choose Hand Safety
<https://choosehandsafety.org/>
- Construction Safety and Health Network
<https://safeconstructionnetwork.org/>
- Construction Solutions
<https://www.cpwrconstructionsolutions.org/>
- Construction Solutions ROI Calculator
<https://www.safecalc.org/>
- COVID-19 Construction Clearinghouse
<https://covid.elcosh.org/index.php>
- COVID-19 Exposure Control Planning Tool
<https://www.covidcpwr.org>
- Electronic Library of Construction Occupational Safety and Health
<https://www.elcosh.org/index.php>
- eLCOSH Nano
<https://nano.elcosh.org/>
- Exposure Control Database
<https://ecd.cpwrconstructionsolutions.org/>
- Nano Safety Data Sheet Improvement Tool
<https://nanosds.elcosh.org/>
- Safety Climate - Safety Management Information System (SC-SMIS)
www.scsmis.com
- Stop Construction Falls
<https://stopconstructionfalls.com/>
- Work Safely with Silica
<https://www.silica-safe.org/>