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RESEARCH ARTICLE

Suicides and Overdoses at Work: Census of Fatal Occupational Injuries, 2011–2022

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Introduction: The worsening life expectancy of middle-aged White Americans due to suicides and substance overdoses has been hypothesized to be caused by various societal conditions. Work is a social determinant of health, but its role in this demographic shift has not been examined. This article describes the characteristics and trends of suicides and overdose fatalities occurring in U.S. workplaces among all workers between 2011 and 2022.

Methods: Data originated from the Census of Fatal Occupational Injury database. Fatality rates were calculated using the Current Population Survey. Fatality rates were calculated and compared among demographic and occupational groups. Annual rates were modeled with a first-order autoregressive linear regression to account for serial correlation. Analyses were conducted in 2023–2024.

Results: Between 2011 and 2022, the rate of workplace overdose fatality rates increased from 0.05 per 100,000 workers to 0.33—an increase of 560%. Workplace suicide rates were relatively stable (0.19 per 100,000 to 0.17). Most industries and occupations experienced significant increases in workplace overdose rates and nonsignificant decreases in workplace suicide rates. The largest workplace overdose rates occurred in the transportation and warehousing industry (0.47, 95% CI=0.27, 0.67) and farming, fishing, and forestry occupations (0.68, 95% CI=0.27, 1.08).

Conclusions: Fatal workplace suicides and substance overdoses have different trends and impact industries, occupations, and demographic groups differently. The rise in workplace overdoses deserve immediate attention.

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INTRODUCTION

In 2015, Case and Deaton coined the term "deaths of despair" to explain the worsening life expectancy of middle-aged White Americans.[1] They found that deaths due to overdoses, chronic liver disease, and suicide were the drivers of this lower life expectancy and suggested that societal conditions, including income inequality, played a role in this demographic shift.[1] Since then, the term "deaths of despair" has come under scrutiny. Some believe the hypothesized pathway (despair) to death was not empirically assessed.[2] Others argue that suicides and overdoses should not be lumped together as it masks unique trends.[3] Others suggest that while inequalities in these deaths are present, some social determinants factors have not been well-studied.[4,5] In 2022, Case and Deaton[6] reanalyzed these deaths while considering confounding variables, such as education.

Alongside education, work is an important social determinant of health that has not been well studied in relation to suicides and overdoses.[7] In 2022, a study reported differences in "deaths of despair" by occupation and concluded that occupational factors may be contributing to differences across occupations.[8] This is not surprising given that suicide and overdose risk vary across occupation and industry.[9–11] Ensuring that scientific findings extend to the workplace is important as the workplace is a possible venue for preventive strategies.

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Also, witnessing or hearing about a colleague's suicide or fatal overdose can leave employees susceptible to adverse psychological outcomes such as post-traumatic stress disorder, depression, anxiety, and insomnia.[12] The purpose of this article is to describe trends of "deaths of despair" occurring in U.S. workplaces between 2011 and 2022. For this analysis, alcohol-related deaths are excluded and suicides and overdose fatalities are included. Trends across major industries and occupations are also compared.

METHODS

Study Sample

Workplace fatalities occurring between 2011 and 2022 were obtained from the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injury (CFOI) database. The CFOI compiles data on all fatal work-related injuries occurring to noninstitutionalized people on the premises of their employer or working off-site.[13] Compiled CFOI data on fatal work-related injuries include death certificate data and data from multiple administrative and public records including workers' compensation reports, Occupational Safety and Health Administration investigation reports, medical examiner reports, news media, and police reports.[13] Data were obtained from both the BLS public query system and through a restricted Virtual Data Enclave using a Memorandum of Understanding between BLS and the National Institute for Occupational Safety and Health (NIOSH). To match denominator data, workplace deaths among those aged 15 years or younger were removed. Denominator data for rate calculations were extracted from the BLS Current Population Survey. The Current Population Survey includes data on civilians who are noninstitutionalized wage and salary workers, the self-employed, part-time workers, and unpaid workers in family enterprises.[14] This activity was reviewed by CDC, deemed not research, and was conducted consistent with applicable federal law and CDC policy.[1]

Measures

Workplace suicides and substance overdose fatalities were examined using CFOI data. Substance overdose fatalities will be termed "overdoses." The CFOI uses the Occupational Injury and Illness Classification System (OIICS 2.0) to classify the nature of injury, body part affected, source of injury, and injury event.[15] Suicides were selected using the following event codes: "112" (self-inflicted injury, intentional) and "122" (injury by person, unintentional or intent unknown).[16] Code "122" is used when details point toward suicide, but no definitive evidence, such as a note, were found. As an example, a law enforcement officer is found in their patrol car with a firearm-inflicted fatal injury and the firearm present. This category has been included in prior workplace suicide manuscripts.[16] In CFOI, accidental overdoses are identified using the event code "5510" (nonmedical use of drugs or alcohol—unintentional overdose).[17] Workplace intentional overdoses are included in the suicide category.

Overdoses in which the manner of death is undetermined fall under the "122" (injury by person, unintentional or intent unknown). Major industry and occupational groups were defined using the 2000 Standard Occupational Classification system and the North American Industrial Classification System and were included if there were sufficient numbers to ensure reliable modeling.[18,19] Firearm suicides were identified using the OIICS 2.0 secondary source code "78" which includes all types of firearms.[15] For fatal overdoses, 3 categories were identified using the OIICS 2.0 primary source codes: (1) "1842" (drugs-nonmedicinal), which are termed "illegal drugs," (2) "1843" (medicines-except vaccines), which are termed "legal drugs," regardless if they were obtained illegally or used recreationally, and (3) "1848" (multiple drugs, alcohol, and medicines) as defined by the OIICS codes.[15]

Statistical Analysis

Annual workplace suicide and overdose fatality rates were calculated as the total number of fatalities divided by the estimated number of workers. Annual workplace suicide and overdose fatality rates were calculated by sociodemographics of the decedent (sex, age, race, ethnicity), workplace variables (ownership status, industry, occupation), and injury characteristics through access to CFOI micro-data provided by BLS. All workplace fatality rates are expressed as the number of fatalities per 100,000 workers.

Annual rates for each series of 12 years of data were modeled with a first-order auto-regressive linear regression, accounting for serial correlation. The average annual estimated rate and respective 95% CIs were estimated by averaging the model-predicted rates for years 2016 and 2017. The average annual percent change and respective 95% CIs were estimated using the slope of the model divided by the estimated average annual rate times 100. All analyses were performed with the Proc Autoreg function in SAS, v9.4.

[1]See e.g., 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. §241 (d); 5 U.S.C. §552a; 44 U.S.C. §3501 et seq.

RESULTS

In 2011, overdoses were the sixth leading cause of workplace fatalities at a rate of 0.05 per 100,000 workers (Figure 1). By 2022, the rate increased to 0.33 per 100,000 workers and was the fifth leading cause of workplace death. Workplace suicide rates were stable during this same time (0.19 per 100,000 in 2011 to 0.17 per 100,000 in 2022). Table 1 displays workplace suicide and overdose death rates, corresponding RRs and 95% CIs, and the average annual percent change in rates by sociodemographics and cause of death. Males had a workplace suicide rate 9.9 times that of females and an overdose rate 5 times that of females (RR=9.9, 95% CI=4.1, 15.6; RR=5.1, 95% CI=2.8, 7.4, respectively). Workers aged 55 years or older had the highest workplace suicide rate (0.25, 95% CI=0.2, 0.3) and those aged 35–44 years had the highest workplace overdose rate (0.23, 95% CI=0.15, 0.30).

African American workers had a workplace suicide rate nearly half the rate of White workers or workers of other race but had similar workplace overdose rates. Hispanic workers had higher, but nonsignificant workplace suicide and overdose rates compared to non-Hispanics (RR=1.7, 95% CI=0.9, 2.4; RR=1.5, 95% CI=0.6, 2.5, respectively). Workers in privately-owned businesses had significantly higher workplace overdose rates than workers in federal, state, or local governments (RR=3.2, 95% CI=1.9, 4.5). Workplace suicide rates did not differ across injury source (firearm=0.09; non-firearm=0.10). Workplace overdose rates did not differ by type of substance (illegal drugs=0.06; legal drugs=0.04; multiple drugs=0.06).

Workplace overdose rates increased 538% between 2011 and 2022, though this increase is based on a small base rate (Figure 2). Workplace suicide rates slightly decreased from 0.19 in 2011 to 0.17 in 2022. Across all sociodemographic groups, workplace overdose fatalities had a positive average annual change over time (Table 1). The largest increase in the average annual percent change occurred among workers identified as other race (36.6%, 95% CI=6.6%, 66.7%). From 2011 to 2022, workplace overdose rates significantly increased by 10.7% (95% CI=8.6%, 12.7%) for illegal drugs, 18.3% (95% CI=13.8%, 22.9%) for legal drugs, and 22.4% (95% CI=16.7%, 28.2%) for multiple drugs.

Workplace suicide and overdose fatality rates differed across industry and occupation (Table 2). The largest workplace suicide rates came from the Public Administration industry (0.50, 95% CI=0.30, 0.70) and Protective Service occupations (0.65, 95% CI=0.43, 0.87). The Public Administration industry may contain workers in the military. The largest workplace overdose rates came from the Transportation and Warehousing industry (0.47, 95% CI=0.27, 0.67) and farming, fishing, and forestry occupations (0.68, 95% CI=0.27, 1.08). Most industries and occupations experienced significant increases in the average annual percent change in workplace overdose rates and decreases in workplace suicide rates from 2011 to 2022.

DISCUSSION

Using multiple years of data from a well-established national surveillance system, suicides and overdose

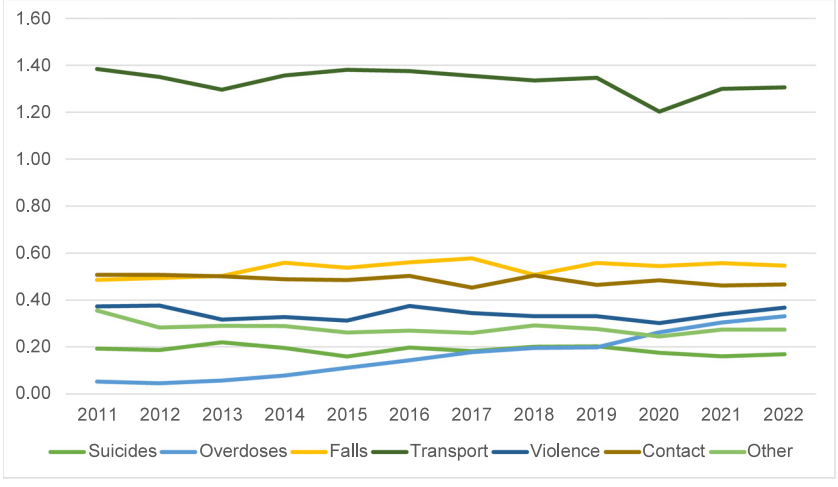

Figure 1. Leading causes of workplace fatality rates per 100,000 FTEs by year: Census of fatal occupational injuries, 2011–2022.[a]
[a]Transportation—Transportation events, Contact—Contact with objects, Other—Includes exposure to harmful substances or environments events, overexertion and bodily reaction events, and nonclassifiable events.

Table 1. Workplace Suicide and Overdose Death Rates by Sociodemographics and Workplace Characteristics: Rate Ratios (95% CIs) and Average Annual Percent Change: Census of Fatal Occupational Injuries, 2011–2022

Characteristic	Average annual suicide rate per 100,000 workers	RR (95% CI)	Average annual percent change (95% CI)	Average annual overdose death rate per 100,000 workers	RR (95% CI)	Average annual percent change (95% CI)
Sex						
Male	0.32 (0.27, 0.37)	9.9 (4.1, 15.6)	−1.0 (−2.5, 0.5)	0.26 (0.20, 0.31)	5.1 (2.8, 7.4)	17.3 (13.6, 21.0)
Female	0.03 (0.01, 0.05)	Ref	−2.0 (−7.0, 2.9)	0.05 (0.03, 0.07)	Ref	15.2 (11.6, 18.7)
Age group						
16–24 years	0.20 (0.12, 0.28)	Ref	2.1 (−3.1, 7.3)	0.09 (0.07, 0.11)	Ref	9.6 (7.8, 11.4)
25–34 years	0.15 (0.11, 0.18)	0.7 (0.4, 1.1)	0.2 (−1.7, 2.1)	0.20 (0.15, 0.26)	2.3 (1.5, 3.1)	16.0 (13.4, 18.6)
35–44 years	0.18 (0.15, 0.21)	0.9 (0.5, 1.3)	−2.1 (−3.3, −0.9)	0.23 (0.15, 0.30)	2.6 (1.5, 3.7)	17.2 (14.3, 20.1)
45–54 years	0.23 (0.17, 0.29)	1.2 (0.6, 1.7)	−2.3 (−4.4, −0.3)	0.18 (0.11, 0.25)	2.1 (1.2, 2.9)	17.3 (14.0, 20.6)
55+	0.25 (0.20, 0.30)	1.2 (0.7, 1.8)	−1.2 (−3.0, 0.5)	0.12 (0.07, 0.18)	1.4 (0.7, 2.1)	17.6 (13.5, 21.7)
Race						
White	0.20 (0.17, 0.23)	Ref	−1.5 (−2.7, −0.3)	0.17 (0.13, 0.20)	Ref	15.3 (13.3, 17.2)
African American	0.11 (0.06, 0.16)	0.5 (0.3, 0.8)	−1.0 (−4.9, 2.9)	0.16 (0.09, 0.23)	0.9 (0.5, 1.4)	19.5 (12.7, 26.4)
Other[a]	0.26 (0.17, 0.35)	1.3 (0.8, 1.8)	1.3 (−2.4, 5.0)	0.14 (0.01, 0.27)	0.8 (0.1, 1.6)	36.6 (6.6, 66.7)
Ethnicity						
Not Hispanic	0.12 (0.07, 0.17)	Ref	−1.8 (−4.7, 1.1)	0.11 (0.05, 0.18)	Ref	26.3 (12.4, 40.2)
Hispanic	0.20 (0.17, 0.23)	1.7 (0.9, 2.4)	−1.0 (−2.6, 0.7)	0.17 (0.14, 0.20)	1.5 (0.6, 2.5)	15.6 (13.4, 17.7)
Employer ownership						
Federal/state/local Government	0.24 (0.15, 0.32)	Ref	0.3 (−3.0, 3.7)	0.06 (0.04, 0.08)	Ref	9.4 (7.2, 11.6)
Private ownership	0.18 (0.15, 0.21)	0.8 (0.5, 1.1)	−1.5 (−3.0, 0.1)	0.18 (0.14, 0.21)	3.2 (1.9, 4.5)	16.6 (13.2, 20.0)
Cause of death						
Firearms	0.09 (0.08, 0.1)	Ref	−0.4 (−1.3, 0.5)		-	
Non-firearm	0.10 (0.08, 0.13)	1.1 (0.8, 1.4)	−1.9 (−4.1, 0.3)		-	
Illegal drugs	-	-	-	0.06 (0.05, 0.07)	Ref	10.7 (8.6, 12.7)
Legal drugs	-	-	-	0.04 (0.03, 0.06)	0.7 (0.4, 1.0)	18.3 (13.8, 22.9)
Multiple drugs			-	0.06 (0.04, 0.08)	1.0 (0.6, 1.4)	22.4 (16.7, 28.2)
Total	0.2 (0.17, 0.23)		−1.2 (−2.6, 0.2)	0.17 (0.13, 0.2)		16.5 (13.2, 19.9)

[a]The Other category was developed by merging data from the AI/AN, Asian, NH/PI, multiple races, and the predetermined Other category due to the inability to report low cell sizes in these race categories.

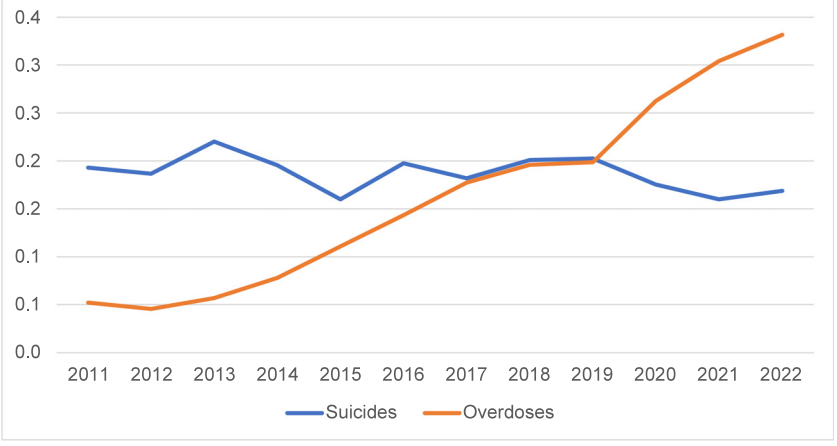

Figure 2. Workplace suicide and overdose death rates per 100,000 FTEs by year: Census of fatal occupational injuries, 2011–2022.

Table 2. Workplace Suicide and Overdose Death Rates per 100,000 FTEs by Major Industry and Occupation: Census of Fatal Occupational Injuries, 2011–2022

Industry and occupation	Average annual suicide rate per 100,000 workers (95% CI)	Average annual percent change (95% CI)	Average annual overdose death rate per 100,000 workers	Average annual percent change (95% CI)
Industry				
Agriculture, forestry, fishing, hunting, mining	0.46 (0.25, 0.67)	6.0 (1.9, 10.1)	0.25 (0.10, 0.40)	14.5 (8.4, 20.7)
Construction	0.25 (0.15, 0.36)	−1.0 (−4.9, 2.9)	0.43 (0.33, 0.52)	17.9 (15.8, 20.1)
Manufacturing	0.14 (0.10, 0.18)	−3.5 (−5.6, −1.4)	0.13 (0.06, 0.21)	20.5 (13.3, 27.6)
Wholesale trade	0.28 (0.05, 0.52)	0.6 (−7.1, 8.4)	0.21 (0.06, 0.35)	19.6 (13.1, 26.1)
Retail trade	0.18 (0.10, 0.25)	1.2 (−3.3, 5.7)	0.11 (0.06, 0.15)	18.1 (10.5, 25.7)
Transportation and warehousing	0.40 (0.23, 0.57)	−1.3 (−5.2, 2.6)	0.47 (0.27, 0.67)	13.5 (9.8, 17.3)
Finance and insurance; real estate; rental and leasing	0.08 (0.04, 0.12)	−1.4 (−5, 2.1)	0.05 (0.0, 0.11)	21.7 (12.9, 30.5)
Professional, scientific, and management	0.07 (0.03, 0.12)	−7.2 (−13.7, −0.7)	0.02 (0.01, 0.03)	14.6 (10.3, 18.8)
Administrative and waste management services	0.21 (0.13, 0.29)	−1.6 (−5.7, 2.5)	0.35 (0.23, 0.47)	18.5 (15.4, 21.7)
Educational services	0.06 (0.02, 0.09)	−0.5 (−5.8, 4.8)	0.02 (0.01, 0.04)	12.2 (6.8, 17.7)
Health care and social assistance	0.10 (0.07, 0.14)	−4.9 (−7.3, −2.5)	0.10 (0.07, 0.14)	8.1 (5.7, 10.5)
Arts, entertainment, and recreation; accommodation and food services	0.14 (0.07, 0.21)	−2.5 (−7.8, 2.7)	0.25 (0.18, 0.32)	19 (15.4, 22.6)
Other services, except public administration	0.32 (0.22, 0.42)	−0.2 (−2.6, 2.1)	0.22 (0.10, 0.33)	17.5 (12.9, 22.0)
Public administration	0.50 (0.30, 0.70)	−0.4 (−3.9, 3.1)	0.08 (0.02, 0.14)	6.2 (1.1, 11.2)
Occupation				
Management	0.21 (0.16, 0.26)	−5.3 (−7.2, −3.4)	0.03 (0.01, 0.05)	19.0 (13.6, 24.3)
Healthcare practitioners and technical	0.10 (0.06, 0.13)	−5.2 (−7.8, −2.7)	0.10 (0.07, 0.14)	8.1 (5.7, 10.5)
Healthcare support	0.07 (0.01, 0.14)	−0.7 (−8.2, 6.9)	0.17 (0.09, 0.26)	15.1 (11.4, 18.9)
Protective service	0.65 (0.43, 0.87)	0.5 (−2.5, 3.5)	0.18 (0.01, 0.35)	26.1 (3.9, 48.4)
Food preparation and serving related	0.10 (0.04, 0.16)	4.0 (−0.6, 8.7)	0.24 (0.18, 0.30)	17.6 (14.2, 21.0)
Building and grounds cleaning and maintenance	0.18 (0.08, 0.29)	−0.7 (−5.6, 4.3)	0.32 (0.21, 0.42)	17.9 (14.5, 21.3)
Personal care and service	0.15 (0.0, 0.29)	6.2 (−2.6, 14.9)	0.14 (0.09, 0.18)	13.6 (11.3, 15.8)
Sales and related	0.19 (0.09, 0.29)	−0.5 (−5.8, 4.7)	0.09 (0.04, 0.14)	18.9 (9.2, 28.6)
Office and administrative support	0.05 (0.03, 0.06)	−2.1 (−5.5, 1.3)	0.04 (0.03, 0.05)	17.5 (15.4, 19.7)
Farming, fishing, and forestry	0.61 (0.26, 0.95)	4.2 (−1.9, 10.3)	0.68 (0.27, 1.08)	11.7 (5.9, 17.4)
Construction and extraction	0.26 (0.11, 0.40)	1.5 (−5.1, 8)	0.54 (0.40, 0.68)	18.5 (14.6, 22.4)
Installation, maintenance, and repair	0.63 (0.47, 0.78)	2.6 (0.8, 4.4)	0.46 (0.21, 0.70)	18.5 (9.8, 27.2)
Production	0.22 (0.16, 0.28)	−3 (−5.4, −0.6)	0.20 (0.13, 0.28)	19.1 (13, 25.1)
Transportation and material moving	0.38 (0.23, 0.52)	−2.3 (−5.6, 1.1)	0.50 (0.32, 0.68)	15.0 (11.7, 18.3)
Total	0.2 (0.17, 0.23)	−1.2 (−2.6, 0.2)	0.17 (0.13, 0.20)	16.5 (13.2, 19.9)

deaths occurring in U.S. workplaces were examined. Workplace overdose fatality rates rose substantially over the 12-year period, becoming the fifth leading cause of death on the job. While workplace suicides and overdoses make up less than 1% of overall suicides and overdoses, it remains important to better understand workplace events. Workplace suicide and overdose fatality rates differed across occupation and industry. These results suggest that workplace factors in specific industries and occupations may be contributing to the differential risk for suicides and overdoses. Given the alarming rise in workplace overdose fatality rates, employers should consider how to address this leading cause of workplace death.

Workplace overdose rates sharply increased and workplace suicide rates slightly decreased during the 12-

year period. It is important to note that the increase in workplace overdose rates is established on a small base rate. It has been suggested that the U.S. drug overdose epidemic occurred in 3 waves: Wave 1 began with an increase in deaths involving prescription opioids in the 1990s; Wave 2 began in 2010 with an increase in heroin-related overdose deaths; and Wave 3 began around 2013 with an increase in synthetic opioid-involved overdose deaths.[20] National data support this, with age-adjusted fatal drug overdose rates involving synthetic opioids increasing significantly over the past decade.[21] Some research has examined the industry or occupation of overdose decedents and found occupations including construction, transportation, and those in farming, fishing, and forestry had the highest risk for overdose deaths.[12,22] Much less research has focused on workplace overdoses. While uncovering occupational differences in overdose fatalities is important for identifying high-risk workers, understanding why overdose deaths are increasing more rapidly in workplaces is also needed.

One of the reasons for the increasing trends in workplace overdose deaths may be the reluctance or lack of knowledge of employers to address substance use. Only 17% of employers report they are well-prepared to address opioid use in the workplace.[23] Another study found that among workers who reported their workplace had an alcohol and drug policy, only 50% could access support services for substance use issues.[24] And although the fishing industry has been identified as high-risk for workplace overdose deaths, few fishing vessels are equipped with naloxone or have captains trained in its use.[25]

The NIOSH published a 4-pronged approach to combatting the opioid overdose epidemic which includes determining the antecedent factors for opioid overutilization among workers; identifying opioid use conditions affecting workers; developing strategies for assisting workers involved in the opioid crisis; and developing methods for workplace opioid detection and decontamination.[26] Using and having access to naloxone to reverse opioid overdoses is an important element of a comprehensive workplace approach. NIOSH developed a fact sheet to help employers decide if they should establish a workplace naloxone program.[27] Systematic reviews of workplace substance misuse interventions show beneficial effects and promising evidence of their effectiveness.[28] Though prevention efforts are often overlooked, the workplace may be an ideal setting to address upstream risk factors for substance use and overdose.[29]

These findings have implications for the development and dissemination of workplace substance use and misuse prevention programs and strategies. Several national efforts are underway. First, the National Safety Council launched a new workplace safety program called Respond Ready Workplace designed to increase awareness of the need for naloxone in workplaces and ensure people are trained to use it.[30] Second, the U.S. Department of Labor implemented a Recovery-Ready Workplace Resource Hub to describe recovery-ready workplaces and provide tools for employers to respond more effectively to substance use among employees.[31] There are also industry-specific efforts. In 2021, the Center for Construction Research and Training (CPWR) released an evidence-based training program for the construction industry to increase awareness of opioids and decrease the stigma associated with opioid use.[32] More research is needed to understand the most effective and sustainable employer-based prevention strategies.[29]

Another focus of this article was to examine suicide trends in workplaces and compare them to suicides outside of the workplace. A prior CFOI analysis found workplace suicide rates started increasing in 2008 and numbered 0.18 per 100,000 in 2010.[17] The current study's timeframe started in 2011 and found higher workplace suicide rates remained consistent up to 2020. Between 2020 and 2022, workplace suicide rates dropped to 0.17 per 100,000. During this time, the COVID-19 pandemic prevented many workers from being in a physical workplace. Therefore, it is premature to hypothesize that lower workplace suicide rates may be due to improved workplace suicide prevention measures. These results mirror other research showing suicides decreased or remained constant during the COVID-19 pandemic.[33–35] The Suicide Prevention Resource Center has resources for managers and coworkers that include how to assist and identify employees at risk, as well as how to deal with the aftermath of a suicide in the workplace.[36] Workplaces are an important setting for suicide prevention efforts. Some general strategies that may positively impact workplaces include limiting access to lethal means among persons at risk for suicide, providing workplace peer support, increasing access to mental health services, and reducing stigma by creating a more supportive work environment and improving awareness of mental health disorders.[37]

Limitations

There are limitations to these data. First, categorization of CFOI suicides or overdoses can be biased due to underreporting and misclassification.[16,17] Second, suicides and overdoses are multifactorial, and there was no control group for examining confounding variables. Third, these data included the COVID-19 pandemic. Disruptions in employment including unemployment, decreased work hours, and reduced access to physical workspaces did not occur uniformly across industries

and occupations. Fourth, the overdose epidemic changed over the study time period. Prior to 2010, overdose deaths were primarily due to prescription opioids, and more recently, deaths are due to illicit fentanyl. By combining 12 years of data, these differences may be masked. Finally, "deaths of despair" include suicides, overdoses, and chronic liver disease. However, the CFOI database does not include chronic diseases. Therefore, fatalities in this study cannot be considered inclusive of all "deaths of despair."

CONCLUSIONS

The decline in U.S. overall life expectancy is a complex phenomenon. This study shows that fatal overdoses and suicides are having a profound impact on American workplaces. Various factors have been proposed to explain these deaths, including opioid accessibility, deindustrialization, sociocultural isolation, and income inequality.[4] Employers have a unique opportunity to combat these deaths by focusing on reducing stigma and providing information and resources to employees seeking workplace support. To date, national efforts toward mitigating this crisis are just beginning to include the workplace, yet there is still a need to address this problem among industries and occupations with high rates or those with increasing numbers.[38] Occupational safety and health efforts have long focused on the traditional hazards that cause fatalities such as falls, chemical exposures, and repetitive injury stressors. However, this study shows that to fully protect workers, employers could consider incorporating mental health and well-being efforts into their workplaces.

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