

# National Institute for Occupational Safety and Health (NIOSH)



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#### AT A GLANCE

eNews is the monthly newsletter of the National Institute for Occupational Safety and Health. Enter your email address in the "Sign up for Email Updates" box at the bottom of the page to have eNews delivered directly to your inbox monthly.

### From the Director's Desk

John Howard, M.D., Director, NIOSH

"Work" is more than a job: The need for data on work



Many aspects of work including tasks, relationships with coworkers, and scheduling impact worker health.

Work influences all areas of our lives—our health, healthcare access, income, housing, and well-being. The concept of work goes beyond what a person does for a living. As a social determinant of health, work may make health disparities and inequities better or worse. This can affect workers, their families, and their communities. Yet work is absent from many studies of health inequities and public health data collection

Work is complex and multilayered, but can be thought of as having three key components:

- **Employment status** refers to whether a person is employed, looking for work, or out of the workforce. The pay earned from work provides access to the basics: food, shelter, and healthcare. Unemployment is associated with worse physical and mental health.[1]
- Occupation and Industry are related but different. Occupation refers to a person's job. Industry is the type of business in which that job occurs. People working in the same occupation often perform similar tasks. However, their jobs may be very different depending on the industry in which they work. A nurse working in a hospital has a very different experience compared with a nurse working in a school. Similarly, school nurses and school cafeteria workers both work in education but have very different jobs.
- Working conditions can include many things. For example, work schedule, pay and benefits, exposure to hazards, a worker's control over the pace of work, workplace psychosocial conditions, and others. Working conditions may result in overlapping challenges for workers. For example, parents who are on shiftwork may have difficulty finding accessible and

affordable childcare. If they don't have paid sick leave benefits, parents may lose wages if they need to stay home when their children are ill.

We can only fully understand how work affects social, economic, and health circumstances when we have good data on both work **and** health. [2] To be useful, data about work must be collected using standard questions and standard codes.

NIOSH, other CDC centers, and the Council of State and Territorial Epidemiologists are creating recommendations and standards for collecting data. These will include the key components highlighted here.

Through standardized data collection, we can better understand how work functions as a social determinant of health to improve the lives of workers.

#### Learn more:

- Assessing the role of social determinants of health in health disparities
- Collecting and using industry and occupation data
- Collecting information on a person's longest-held industry and occupation
- NIOSH Healthy Work Design and Well-Being Program

### Research Rounds

# Multidimensionality of the PROMIS sleep disturbance 8b short form in working adult populations

**Study authors**: Rebecca M. Brossoit, Louisiana State University; Hannah P. Stark, Louisiana State University; Tori L. Crain, Portland State University; Todd E. Bodner, Portland State University; Leslie B. Hammer, Oregon Health & Science University; Cynthia D. Mohr, Portland State University; and Steven A. Shea, Oregon Health & Science University

### Why is this <u>study</u> ∠important?

Sleep is well-recognized as critical to health and well-being. A widely used tool to measure sleep disturbance in treatment and research considers sleep quality as a unified whole. This eight-part item tool is called PROMIS 8b. It is part of a series of health-measurement tools developed by the National Institutes of Health. PROMIS 8b, however, does not consider differences in actual symptoms of sleep disturbance and perceptions of sleep disturbance. Sleep health is complex with many different features such as duration, timing, satisfaction, efficiency, and subsequent alertness. Understanding whether a treatment improves insomnia symptoms versus perceptions of sleep quality is important to both medical treatment and research.

### How did you do the study?

We evaluated 1,722 workers across six samples who had completed the PROMIS 8b tool. Participants were adults employed full time across the United States. We compared their responses using two statistical models. One was a single model for sleep disturbance, as measured by the current tool. The other was a dual model for insomnia symptoms and sleep dissatisfaction.

### What did you find?

Compared to the single model, the dual model more accurately captured sleep disturbance. In the dual model, insomnia symptoms accounted for trouble falling and staying asleep and sleeping restlessly. However, sleep dissatisfaction accounted for perceptions of adequate and refreshing sleep.

### What are the next steps?

It would be useful to divide the tool's eight parts into two categories of sleep disturbance: insomnia symptoms and sleep dissatisfaction. Future research should continue to explore the complex nature of sleep quality to improve the accuracy and use of the PROMIS 8b tool.

# Evaluation of changes in knowledge and attitude among youth after a one-hour introduction to workplace safety and health: *safety matters*

**Study authors:** Andrea Okun, Government Division, Synergy America; Rebecca Guerin, NIOSH; Roberta Smith, Colorado Department of Public Health and Environment; Devin Baker, NIOSH; and Michelle DiMeo-Ediger, EMSTAR Research, Inc.

### Why is this <u>study</u> ∠important?

Young workers (aged 15–24 years) in the United States are injured at higher rates than adults. They often enter the workforce unprepared for the hazards they may face. This study addresses an important research gap by demonstrating the effectiveness of a one-hour educational program called <u>Safety Matters</u> PDF to increase occupational safety and health knowledge and attitude (importance) scores among a group of young participants. This free one-hour safety and health program was developed by NIOSH and the American Industrial Hygiene Association.

### How did you do the study?

We conducted a preliminary project to evaluate the effectiveness of *Safety Matters* to positively change workplace safety and health knowledge and attitude scores among a sample of 283 high-school-aged youth in Colorado. Train-the-trainer sessions prepared volunteer safety and health professionals to deliver *Safety Matters* and to conduct the assessment immediately prior to and upon completion of the program.

#### What did you find?

After receiving the one-hour *Safety Matters* program, participants had increased scores for both workplace safety and health knowledge and attitude (or perceived importance of occupational safety and health). Significant increases in workplace safety and health knowledge scores demonstrated a consistent pattern of improvement regardless of sex, age, race, ethnicity, or previous employment status.

### What are the next steps?

Safety and health professionals can play a critical role in promoting the safety and health of young workers by delivering *Safety Matters*. Adapting safety and health programs to youth populations may enhance the relevance of the program and how it is received.

# Highlights

### Get Ready For Safe+ Sound Week 2024

Join OSHA, NIOSH, and other partners August 12–18 for <u>Safe + Sound Week 2024</u> ☑! Held each August, this nationwide event recognizes the successes of workplace health and safety programs and offers information and ideas on how to keep America's workers safe. This year offers resources for businesses on job hazard analysis. <u>Learn more and register</u> ☑ to join us!

### Midsummer Heat Safety Social Media Campaign

Beginning July 15, NIOSH and partners will be sharing heat safety information across social media. Follow NIOSH on Facebook, X/Twitter, Instagram, and LinkedIn for resources and information on protecting yourself and your employees from extreme heat. Find more resources on the National Integrated Heat Health Information System's heat.gov 2 webpage.

### Publication Now Available on Using Reusable Health Care Textiles in Protective Equipment

The <u>proceedings</u> of from the NIOSH-sponsored National Academies of Sciences, Engineering, and Medicine March <u>workshop</u> are now available. The event focused on increasing reusable health-care textiles in personal protective equipment in healthcare settings. The proceedings highlight the workshop's presentations and discussions.

### NIOSH Renews Partnership Advancing Safety for Ag., Forestry, and Fishing Workers

NIOSH and the Northeast Center for Occupational Health and Safety  $\square$  are pleased to announce they've renewed their partnership agreement. Through this partnership they will continue efforts to advance the safety and health of workers in the Agricultural, Forestry, and Fishing sector. Contact Samantha Case for more information on the partnership.

#### NIOSH Congratulates: Researchers Receive Fire Protection Research Foundation Medal

The National Fire Protection Association awarded their 2024 Fire Protection Research Foundation Medal. It went to <u>Validating Cleaning Procedures for Firefighter Personal Protective Equipment (PPE)</u> by NIOSH researchers Crystal Forester and Jay Tarley. This honor recognizes a project that best exemplifies the <u>Research Foundation's</u> fire safety mission and priorities. Read the <u>press release</u> to learn more.

### Find more on our website

- Current Job Opportunities
- Newsroom
- Upcoming NIOSH & Partner Events

# Federal Register Notices

Proposed Data Collection Submitted for Public Comment and Recommendations: Assessing Sexual and Gender Minority (SGM) Occupational Well-being From The PRIDE Study

The <u>notice</u> 🗹 was posted on May 7. Comments must be received by July 8.

Meeting of the Advisory Board on Radiation and Worker Health (ABRWH), Subcommittee for Procedure Reviews, National Institute for Occupational Safety and Health (NIOSH)

The <u>notice</u>  $\square$  was posted on May 17. Comments must be received by July 21. The meeting will be held on July 30.

National Institute for Occupational Safety and Health; Human Factors Considerations for the Fire Fighter Fatality Investigation and Prevention Program

The <u>notice</u> \(\tilde{L}\) was posted on May 21. Comments must be received by July 22.

Proposed Data Collection Submitted for Public Comment and Recommendations: Lung Function Screening of Construction Workers With Exposure to Dusts and Chemicals

The <u>notice</u> \(\tilde{L}\) was posted on June 4. Comments must be received by August 5.

# New communication products

Fire Fighter Fatality Investigation and Prevention Program Report

<u>Career Firefighter Dies and Three Others Injured in a Struck-By Incident While On-Scene at a Roadway Crash—Pennsylvania</u>

Health Hazard Evaluation Report

Evaluation of Exposures to Noise and Dust at a Pharmaceutical Manufacturing Facility PDF

### Technical Reports

- Fabrication Guide: McElroy/Catchot Model 505 Winch Guard
- Installation Guide: McElroy/Catchot Model 505 Winch Guard

### NIOSH Science Blog

What's New on the Blog

Read and comment on the latest blogs.

# News From our partners

### **Funding Opportunity: Susan Harwood Training Grant Program**

OSHA recently announced the <u>availability of funding for Susan Harwood Training Grant Program grants</u> \(\mathcal{Z}\). Applicants must register with <u>grants.gov</u> \(\mathcal{Z}\) to apply for a grant opportunity. Submit applications at <u>www.grants.gov</u> \(\mathcal{Z}\) by July 26.

### Kentucky Develops Work-related Injury ESSENCE Query and Internal Dashboard

The Kentucky Occupational Safety and Health Surveillance program has developed a specialized ESSENCE query. The goal of ESSENCE, which stands for Electronic Surveillance System for the Early Notification of Community-Based Epidemics, is to identify workplace injuries. Read the press release 2 to learn more.

### Updates From State Fatality Assessment and Control Evaluation (FACE) Programs

- Massachusetts Fatal Injuries at Work: Fatality Update 2021–2022: This <u>publication</u> ☑ offers an overview of the fatal occupational injuries in Massachusetts during 2021–2022. It has details collected by the Massachusetts Fatality Assessment and Control Evaluation and the Census of Fatal Occupational Injuries projects.
- Truck Driver Poisoned by Carbon Monoxide in Truck Cab: This Fatality Narrative PDF from the Washington FACE program involves a truck driver who died from carbon monoxide poisoning in a truck cab. To help prevent similar occurrences, the narrative provides prevention recommendations and requirements. You can view the report as a slideshow PDF .

## **NORA**

### Firefighting Exposures and Cancer Webinar

The NORA Chronic Disease Council posted its latest webinar to YouTube. This webinar covers the International Agency for Research on Cancer's recent evaluation of firefighting as a human carcinogen. It offers an overview of the evaluation and its impact. Check out the  $English \ \square$  and  $Spanish \ \square$  audio versions!

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#### **REFERENCES**

- 1. Silver SR, Li J, Quay B [2022]. Employment status, unemployment duration, and health-related metrics among U.S. adults of prime working age: Behavioral Risk Factor Surveillance System, 2018–2019. Am J Ind Med *65*(1):59–71, doi:10.1002/ajim.23308.
- 2. Silver SR, Sweeney MH, Sanderson WT, Pana-Cryan R, Steege AL, Quay B, Carreón T, Flynn M [2024]. Assessing the role of social determinants of health in health disparities: the need for data on work. Am J Ind Med *67*(2):129–142, doi:10.1002/ajim.23557.