



# eNews: Volume 19, Number 6 (October 2021)



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Volume 19, Number 6 (Octoberer 2021)

# From the Director's Desk

John Howard, M.D. Director, NIOSH

# 20 Years Later: Research Highlights Ongoing Health Impacts of 9/11

The nation recently paused to reflect on the events of September 11, 2001, and on those we lost on that tragic day. Even though two decades have passed since 9/11, that day, and the months afterward, continue to impact the physical and mental health of hundreds of thousands of people who rushed to help and whose daily lives exposed them to the dust cloud and toxins.

As director of NIOSH, I serve as administrator of the World Trade Center (WTC) Health Program, which provides expert medical monitoring and treatment to those directly affected by the 9/11 attacks in New York, the Pentagon, and in Shanksville, Pennsylvania. Currently, more than 112,000 responder and survivor members are enrolled in the WTC Health Program. Over 65,000 of our members are certified with at least one WTC-related health condition. Some of the most common conditions we're seeing in people are chronic rhinosinusitis, gastroesophageal reflux disease or GERD, many types of cancer, asthma, sleep apnea, post-traumatic stress disorder or PTSD, and depression.

To support our mission and provide the best possible care to members, the WTC Health Program funds research on physical and mental health conditions that may be related to the 9/11 attacks. Research aimed to improve the diagnosis and treatment of existing WTC-related health conditions is also funded. We also support the WTC Health Registry ☑, run by the New York City Health Department, which has tracked and investigated the health of those affected by 9/11 since 2002. Through this work, the WTC Health Program highlights the extensive ongoing health impact on the exposed population. It also shows the importance of continued research funding for 9/11-related health care, especially as the affected population ages.

On September 10, a summary of the Program's first decade was released. This summary highlights key information, such as the prevalence of certain WTC-related conditions, as well as member demographics and claims data. These data help inform policy decisions for this and other health programs and provide



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#### **Highlights**

 COVID-19 Update: Immigrant Worker Communities Focus of COVID-19 Town Hall insight for response to future disasters. The Program also recently published a workshop summary \( \text{\text{\text{\text{o}}}} \) on cognitive aging and impairment and a commentary \( \text{\text{\text{\text{o}}}} \) on twenty years of 9/11 health effects research.

These and other important 9/11 health research updates and studies can be found on the new Program Research webpage and through the WTC Health Program Research Gateway. I encourage you to explore these resources to learn more about this important ongoing effort.

As we look ahead, the future of WTC Health Program research is promising with many opportunities for collaboration. Research will continue its important role in identifying and characterizing WTC-related health conditions and the care of those afflicted. Research solicitation initiatives for fiscal year 2022 will foster inclusivity for early career researchers and target underrepresented groups in the 9/11 community.

I am proud to serve the 9/11 community as administrator of the WTC Health Program since its launch in 2011. I am further honored that all of NIOSH is dedicated to the promise to never forget.

# Research Rounds

For the NIOSH 50th Anniversary, please enjoy this limited time series of "NIOSH Now" and "NIOSH Then" where we look back at research efforts inside & outside of NIOSH from the past 50 years.

# **NIOSH Now:**

Specific Arm Movements Increase Shoulder Injury Risk

If you have experienced shoulder pain or discomfort, you are not alone. Injury to the muscles around the shoulder socket, or rotator cuff syndrome (RCS), is common, especially as we age.<sup>1</sup>

Work-related RCS can result in missed workdays and lost productivity and earnings. A previous study ✓ reported that RCS-related workers' compensation claims from 1999 through 2013 totaled \$1.5 billion in Washington State alone. Although work-related cases are decreasing, they are doing so at a slower rate than other muscle and bone, or musculoskeletal, disorders, according to the study and the U.S. Bureau of Labor Statistics.

RCS can affect overall well-being and contribute to distress both within and outside of the workplace. Certain jobs, such as healthcare and manufacturing, pose a greater risk due to the types of forceful and repetitive arm movements involved in particular tasks. To understand the risk, investigators recently looked at 393 full-time healthcare and manufacturing workers participating in a large NIOSH study of work-related musculoskeletal disorders. Their average age was 42 years, and 44 percent were female. Study participants completed annual questionnaires and clinical testing and task-level ergonomic assessments for up to two years from 2002 through 2005.

Overall, 39 RCS cases occurred, according to the research published in *Human Factors: The Journal of the Human Factors and Ergonomics Society* . This number translates to a rate of 5.62 cases per 100 people tracked for a year, which is comparable to other studies' findings. When combined with more forceful hand movements per minute (3 or more), higher upper-arm positions such as raising or reaching the arms increased the risk for RCS. These results

- NOIRS 2022 Abstract & Session
   Proposal Deadline Extended
- Job Opportunity: Director,
   Division of Science Integration
- NIOSH 50th Anniversary Celebration Continues
- Webinar: What's Age Got to do with it? Realities and Solutions for Workplace Ageism
- NIOSH Seeks Input to Prevent Work-related Stress and Support Health Worker Mental Health
- NIOSH Revised Lifting Equation Manual Updated
- NIOSH Awards Funding for Centers of Excellence for Total Worker Health®
- Keeping Teen Workers Safe Campaign
- Recipients of Commercial Fishing Safety Research and Training Grants Announced!
- NIOSH Partners with UF on Robotics Research
- Winners Announced in the 2021 NIOSH Mine Safety and Health Technology Innovations Awards

### **Monthly Features**

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# NIOSH eNews is Brought to You By:

John Howard, M.D., Director Christina Spring, Editor in Chief

# Managing Editor

Tanya Headley

# **Section Editor**

Anne Blank, Research Rounds Kiana Harper, Highlights & Monthly Features show the importance of monitoring tasks that require potentially hazardous

upper-arm movements. When unavoidable, decreasing both the force and the pace of repetitive upper-arm movements could decrease the risk for RCS, according to the investigators.

More information is available:

- NIOSH | Ergonomics And Musculoskeletal Disorders
- NIOSH | Healthcare Workers
- NIOSH | Manufacturing Program

#### Reference

<sup>1</sup>Luime et al 2004: Luime JJ, Koes BW, Hendriksen IJ, Burdorf A, Verhagen AP, Miedema HS, et al. Prevalence and incidence of shoulder pain in the general population; a systematic review. Scand J Rheumatol. 2004;33:73–81.

# **NIOSH Then:**

Expanded Framework for Worker Well-being Leads to New NIOSH Survey Tool

In 2018, NIOSH described the development of a new, expanded framework for worker well-being. The project began in 2012, when NIOSH, through its *Total Worker Health*® Program, partnered with the RAND Corporation to define and put into practice the concept of worker well-being. The program encourages a holistic view on the health and safety of workers, focusing on both work and nonwork factors. Using this approach, the new framework defines and creates objective measures for worker well-being.

The framework comprises five main influences, or domains, according to an article published in the *Journal of Occupational* and *Environmental Medicine*::

- 1. Workplace physical environment and safety climate
- 2. Workplace policies and culture
- 3. Health status

- 4. Work evaluation and experience
- 5. Home, community, and society

In addition to the five main domains, it includes 20 subdomains. For example, the subdomains of the workplace policies domain are salary and rewards, benefits, workplace culture, workplace health culture, and work-life integration.

To develop the framework, researchers first reviewed the literature to define the major domains of worker well-being. They then organized an expert panel to help select and prioritize the subdomains. Before the release of this framework, research often used measures that tried to gauge well-being but were less comprehensive. These measures, such as job satisfaction, worker engagement, or general health, can give some insight, but do not show the whole picture.

Since publication, NIOSH, in collaboration with the Rand Corporation, created a new survey tool called the NIOSH Worker Well-being Questionnaire (WellBQ). Released in early 2021, the WellBQ uses the five domains of the framework to provide an integrated assessment of worker well-being across

### **Contributing Editors**

Sarah Mitchell Emily Norton Donjanea Williams

### Copy Editor

Cheryl Hamilton

#### **Technical Support**

Steve Leonard, Technical Lead Margaret Bertsch, Web Developer



multiple spheres.

#### More information is available:

- NIOSH | Total Worker Health® Program
- NIOSH | WellBQ
- Expanding the Paradigm of Occupational Safety and Health: A New Framework for Worker Well-being 

  ☑

# Highlights

#### COVID-19 Update: Immigrant Worker Communities Focus of COVID-19 Town Hall

A recording of the virtual town hall, A Community Conversation on COVID-19 and Vaccines . is now available. In the recording, NIOSH researcher Mike Flynn discusses immigrant worker communities. The town hall is part of the HHS campaign Juntos Si Podemos . and was presented in partnership with the organization Latinx Voices en Salud.

#### NOIRS 2022 Abstract & Session Proposal Deadline Extended

The due date for submitting abstracts and session proposals for National Occupational Injury Research Symposium (NOIRS) 2022 has been extended until October 15. Please visit the website to submit an abstract or session proposal.

### Job Opportunity: Director, Division of Science Integration

The CDC NIOSH Division of Science Integration (DSI) is recruiting for a Health Scientist position located in Cincinnati, Ohio. The incumbent will serve as the Division Director to over 100 full-time employees and be responsible for managing, directing, overseeing, and evaluating all DSI activities. The vacancy closes October 15. Details can be found on the CDC lobs website.



#### NIOSH 50th Anniversary Celebration Continues

In honor of its 50th anniversary, NIOSH will present a webinar "Quantifying and Understanding Impact—NIOSH Epidemiologic and Surveillance Activities" on October 12, 3:00–4:30 p.m. (ET). Topics include mortality studies of chronic disease, the NIOSH Fatality Assessment and Control Evaluation program, the Coal Workers' Health Surveillance program, indoor environmental quality investigations, and the NIOSH extramurally funded State Occupational Safety and Health Surveillance Program.

Register for the webinar or discover more activities recognizing NIOSH's 50th anniversary.

#### Webinar: What's Age Got to do with it? Realities and Solutions for Workplace Ageism

This webinar will offer a closer look at workplace ageism. Speakers will discuss different aspects of workplace ageism and ways that workers, employers, and researchers can address it. Register today for the webinar on October 20, 12:00-1:30 p.m. (ET). Free continuing education for this activity is available.

#### NIOSH Seeks Input to Prevent Work-related Stress and Support Health Worker Mental Health

Have your voice heard! Provide input on current evidence-based, workplace and occupational safety and health interventions to prevent work-associated stress, support stress reduction, and foster positive mental health and well-being among the nation's health workers. Read how 1 to submit your comments, which are due by November 26.



### **NIOSH Revised Lifting Equation Manual Updated**

NIOSH recently published an updated version of the Revised NIOSH Lifting Equation (RNLE) Manual. The updated manual corrects typographical errors in the previous version, has improved graphics, and is reformatted to be searchable and 508-compliant. This resource guides users on how to use the RNLE, which is also available as a mobile app. The app facilitates the calculations of RNLE for identifying the risk of low back disorders associated with manual lifting tasks.

### NIOSH Awards Funding for Centers of Excellence for *Total Worker Health*®

NIOSH has awarded funding to 10 Centers of Excellence for *Total Worker Health*® (TWH). Four new Centers of Excellence in California, Maryland, North Carolina, and Utah will join six existing centers in Colorado, Connecticut, Illinois, Iowa, Massachusetts, and Oregon. The Centers of Excellence represent the extramural portfolio of TWH research funded by NIOSH to further its mission of protecting and advancing the safety, health, and well-being of the diverse population of workers in our nation. The addition of the four new centers marks the growing focus on comprehensive efforts to protect and promote the safety, health, and well-being of our nation's workforce.

# Keeping Teen Workers Safe Campaign

Join NIOSH, OSHA, CareerSafe , and other partners in our effort to #KeepTeenWorkersSafe by being part of a Public Service Announcement (PSA) on empowering teen workers! We are asking teens/students to help us spread the word that teen workers have a right to safe workplaces by recording and uploading video testimonials . Teen/student videos will be considered for use in a national PSA for our joint campaign to increase awareness and promote workplace safety and health resources for teen workers. #KeepTeenWorkersSafe—today and every day!

### Recipients of Commercial Fishing Safety Research and Training Grants Announced!

NIOSH and the U.S. Coast Guard are pleased to announce the 2021 recipients of the Commercial Fishing Occupational Safety Research Cooperative Agreement and Training Project Grant Program. This year's program made nine awards totaling \$4.1 million. These awards support critical research and training projects to improve the occupational safety of workers in the high-risk commercial fishing industry. The 2021 awards mark the third time the Commercial Fishing Occupational Safety Research Cooperative Agreements and Training Project Grants have been available. The next application deadline for these two funding opportunities is January 21, 2022. Interested applicants may consult the NIOSH Office of Extramural Programs website for additional information.

#### NIOSH Partners with UF on Robotics Research

NIOSH has signed an MOU with the University of Florida (UF) to enable collaborative robotics research between the institutions and provide educational opportunities for UF students. The 5-year partnership will encompass collaborative research using complementary labs, guest research appointments, co-authored publications, and experiential learning.

### Winners Announced in the 2021 NIOSH Mine Safety and Health Technology Innovations Awards

The NIOSH Mining Program, in conjunction with the Industrial Minerals Association–North America, the National Mining Association, and the National Stone, Sand and Gravel Association, recognized four organizations in their respective industry sectors, some for developing new safety tools and systems, and others for instituting new health protocols to keep their workforce safe during the COVID-19 pandemic. Read the full NIOSH Update.

# **Monthly Features**

# **New Communication Products & Reports**

**New Communication Products & Reports** 

## **FACE Report**

City Electric Maintenance Worker Electrocuted while Installing Lines for Security Cameras—Ohio

# **Fact Sheets**

- How to Tell if Your N95 Respirator Is NIOSH Approved
- Understanding Filtration Efficiency Testing and Fit Testing in Filtering Facepiece Respirators (FFRs)
- Law Enforcement Agencies: How to Prevent Motor Vehicle Collisions

# Fire Fighter Fatality Investigation and Prevention Program Report

• 67-Year-Old Volunteer Lieutenant Suffers Sudden Cardiac Death Following Training—Florida

### Newsletter

Total Worker Health in Action

#### Program Performance One-Pagers (PPOP)

• Mining Program

- National Center for Productive Aging and Work PPOP
- Small Business Assistance Program PPOP

# NIOSH Science Blog

Please see the following new blogs from August. Sign up to have notifications about new NIOSH Science Blogs delivered directly to your inbox!

- Home Healthcare Workers: A Growing and Diverse Workforce at High Risk for Workplace Violence
- Labor Day 2021: Statement by John Howard, M.D., Director, NIOSH
- Respiratory Protection Week 2021 Resources and Review
- Who Does What? The Roles of NIOSH, OSHA, and the FDA in Respiratory Protection in the Workplace
- Statement by Dr. John Howard Commemorating 20 Years Since September 11, 2001
- Addressing the Opioid Overdose Epidemic in Construction: Minimize Work Factors that Cause Injury and Pain
- Suicide Prevention for Healthcare Workers
- Antigen Testing for SARS-CoV-2 in Nonhealthcare Workplaces
- WCI Coverage of Cannabis Costs for Work-related Health Conditions

# Federal Register Notice

Meeting: Board of Scientific Counselors, National Institute for Occupational Safety and Health (BSC, NIOSH)

The notice was posted on August 13. The meeting will be held on October 5.

Advisory Board on Radiation and Worker Health (ABRWH), National Institute for Occupational Safety and Health (NIOSH)

The notice 🖸 was posted on September 17. Comments must be received by October 13. The meeting will be held on October 20.

Needs and Challenges in Personal Protective Equipment (PPE) Use for Underserved User Populations

The notice \( \text{\tint}\text{\texi}\tint{\text{\text{\text{\texi}\text{\texi}\text{\text{\text{\texi}\text{\text{\text{\texi}\text{\text{\text{\text{\text{\te\

Proposed Data Collection Submitted for Public Comment and Recommendations: Field Pilot to Inform the Development of a NIOSH Training Product, the Safety Skills at Work Curriculum

The notice **!** was posted on August 20. Comments must be received by October 19.

Advisory Board on Radiation and Worker Health (ABRWH), Subcommittee on Procedures Reviews (SPR), National Institute for Occupational Safety and Health (NIOSH)

Proposed Data Collection Submitted for Public Comment and Recommendations: Coal Workers' Health Surveillance Program (CWHSP).

The notice 🔀 was posted on September 14. Comments must be received by November 15.

Proposed Data Collection Submitted for Public Comment and Recommendations: Reducing Fatigue Among Taxi Drivers.

The notice was posted on September 17. Comments must be received by November 16.

Interventions To Prevent Work-Related Stress and Support Health Worker Mental Health: Request for Information

The notice was posted on September 27. Comments must be received by November 26.

#### Partners and the NIOSH 50th

Check out new information from our partners who are recognizing the NIOSH 50th anniversary, along with their successes and accomplishments from partnering with our institute. You can find this information on the NIOSH 50th anniversary webpage.

#### OSHA Expands Measures to Protect Workers from Hazards of Extreme Heat

On September 20, the White House announced enhanced and expanded efforts that OSHA is taking to combat the hazards associated with extreme heat exposure – both indoors and outdoors. While heat-related illness is largely preventable, and commonly under-reported, thousands of workers experience/suffer from workplace heat-related illnesses and injuries each year. OSHA will implement an enforcement initiative  $\square$  on heat-related hazards, develop a National Emphasis Program  $\square$  on heat inspections, launch a rulemaking process to develop a workplace heat standard and forming a National Advisory Committee on  $\square$  OSH Heat Injury and Illness Prevention Work Group to provide better understanding of challenges and to identify and share best practices to protect workers. Read the full statement  $\square$ .

### Long Working Hours Increase Deaths From Heart Diseases and Stroke

A new study published in Environmental International from the World Health Organization (WHO) and International Labour Organization (ILO) places long work hours as the risk factor with the largest occupational disease burden, accounting for one third of the total estimated work-related burden of disease. Find more details online, including a press release , and website .

# National Transportation Safety Board Holds Roundtable on Improving Fishing Vessel Safety

NIOSH will join the National Transportation Safety Board's virtual roundtable on October 14 from 1:00–3:30 p.m. (ET). The roundtable discussion will address commercial fishing safety concerns, implement recommendations, and improve the safety of fishing operations in the United States. To learn more about the event and register, visit the NTSB event webpage ☑.

#### **New Construction Research Key Findings**

CPWR—The Center for Construction Research and Training has published two new Key Findings. These publications are one-page, accessible summaries of reports and peer-reviewed journal articles produced by CPWR researchers:

- Identifying Agents of Epoxy Resin Exposure Among Construction Painters
- Utilizing Biomarkers to Detect Epoxy Resin Exposures Among Construction Workers

CPWR is the NIOSH-funded National Center for Construction Safety and Health Research and Translation.

#### **Check Out Recent Newsletters From Our NIOSH Grantees**

- Center for Health, Work & Environment—September 2021 Newsletter 🔼
- Pacific Northwest Agricultural Safety & Health Center—September 2021 eNews

#### Network for Emotional Well-Being Announces Funding Opps

The Network for Emotional Well-Being: Science, Practice, and Measurement, is currently seeking proposals for two different funding opportunities : Connecting Emotional Well-being Interventions to Health Outcomes and Utilization of Large-Scale Cohort Studies to Examine Health and Aging Trajectories.

# Conferences, Meetings, Webinars, & Events

This page provides a list of publicly available occupational safety and health-related conferences, meetings, webinars, and events sponsored by NIOSH as well as other government agencies, and nongovernment agencies, such as universities, professional societies, and organizations.

#### Follow NIOSH

