

NIOSH Bibliography of Communication and Research Products 2021



Centers for Disease Control
and Prevention
National Institute for Occupational
Safety and Health

The photographs on the front and back covers of the *NIOSH Bibliography of Communication and Research Products 2021* represent just a few of the workers and professions that NIOSH conducts occupational safety and health research for. The photographs are described below:

Front cover:

1. A builder works on ventilation on a building facade with a powered screwdriver. Photo by ©Kadmy/Getty Images.
2. A woman working on a laptop wears a mask and cleans her hand with sanitizer. Photo by ©Damircudic/Getty Images.
3. A fisherman dressed in orange rompers gathers his trammel net. Photo by ©SorinVidis/Getty Images.
4. A nurse comforts a COVID-19 patient at the ICU. Photo by ©Tempura/Getty Images.

Back cover:

1. A hotel worker wears a glove to wipe a doorknob. Photo by ©FG Trade/Getty Images.
2. A cashier in a supermarket wears a mask and gloves to protect against the virus that causes COVID-19. Photo by ©Smederevac/Getty Images.
3. A woman checks the pulse of a young girl. Photo by ©Madrolly/Getty Images.
4. A poster on the street announces that a business is closed because of the pandemic. Photo by ©Tumsasedgars/Getty Images.
5. Paramedics wearing white coveralls attend to a patient while riding in an ambulance. Photo by Gorodenkoff.

NIOSH

**Bibliography
of Communication
and Research Products**

2021

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

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Find NIOSH products and get answers to workplace safety and health questions:

1-800-CDC-INFO (1-800-232-4636) | TTY: 1-888-232-6348

CDC/NIOSH INFO: [cdc.gov/info](https://www.cdc.gov/info) | [cdc.gov/niosh](https://www.cdc.gov/niosh)

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April 2024

Foreword

We strive for excellence in our scientific endeavors and in the publications of our work. This bibliography is our effort to provide the best scientific information possible to maintain and improve safety and health at work. I believe that this bibliography reflects and reinforces the NIOSH values of relevance, quality, and impact, and demonstrates the consistent commitment of NIOSH and our partners to all workers as they face challenges to be safe and healthy while contributing to our nation's productivity. Please explore these products further and distribute them freely in workplaces and to our colleagues in the occupational health and safety community.



Photo by NIOSH.

John Howard, M.D.
Director, National Institute for
Occupational Safety and Health
Centers for Disease Control and Prevention

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Contents

Foreword	iii
A Brief History of NIOSH COVID-19 Response Efforts	vii
NIOSH COVID-19 Research	xv
The Impact of NIOSH Respirator-related Webpages	xxv
Stories from the Field	xxvii
Research Highlights 2021	xxxix
Journal Articles.	1
Books or Book Chapters	45
NIOSH Numbered Products	47
Proceedings	55
Abstracts	67
Control Technology Reports.	71
Fatality Assessment and Control Evaluation Reports	73
Fire Fighter Fatality Investigation and Prevention Reports	75
Health Hazard Evaluation Reports	77
Author Index.	79
National Occupational Research Agenda (NORA) Index	101

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A Brief History of NIOSH COVID-19 Response Efforts

By Jeanette Novakovich, NIOSH Writer-Editor (former)

I have no idea what's awaiting me, or what will happen when this all ends. For the moment I know this: there are sick people and they need curing. – Albert Camus, The Plague¹

The **COVID-19 pandemic** likely began in Wuhan, China, in December 2019. The World Health Organization (WHO) China Country Office was informed about cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan. Word spread quickly that a virus was putting large numbers of people in intensive care. On January 2, 2020, WHO activated its incident management system across the three levels of WHO (country office, regional office, and headquarters). As the virus reached other countries, public health agencies sounded the alarm. Countless lives depended on our nation's public health scientists. On January 20, 2020, CDC announced the first U.S. laboratory-confirmed case of COVID-19 in the U.S. from samples taken on January 18 in Washington state.

The U.S. Centers for Disease Control and Prevention (CDC) established an incident management structure and began responding in early January 2020. The National Institute for Occupational Safety and Health (NIOSH) formed a team to be part of response. NIOSH is the institute inside CDC charged with protecting the safety and health of the U.S. workforce. Management of the response transitioned to the CDC Emergency Operations Center (EOC) on January 21, 2020. EOC coordinates emergency responses to domestic and international public health threats. It brings together CDC experts to help with monitoring, contact tracing, prevention and controls, and healthcare.

On May 28, 2020, a few months into the pandemic that would kill more than a million Americans, NIOSH director John Howard, MD, testified before Congress.²

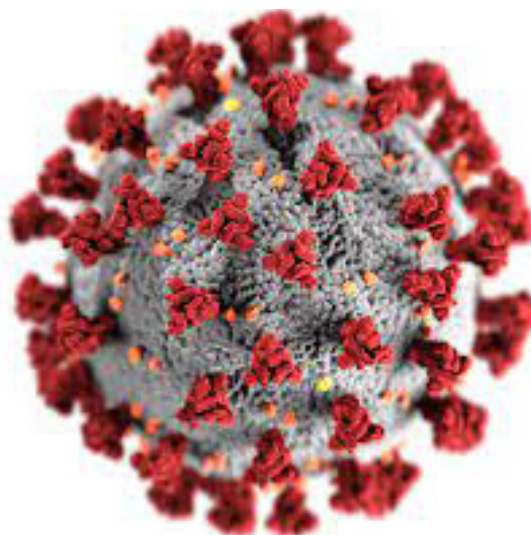


Illustration by CDC.

Dr. Howard spoke about the Institute's role in protecting the nation's workforce during the pandemic. On that day, the **CDC COVID Data Tracker** reported 22,512 new cases of COVID-19 in the United States. By the end of the year, new cases in a single day would reach as high as a quarter million.

In his testimony, Dr. Howard made clear the danger the virus posed to our country, "The emergence and rapid spread of COVID-19 confirms that an infectious disease threat anywhere is a threat to Americans everywhere, including here at home." Dr. Howard continued, "Every single American is affected by this pandemic, and CDC is leaning into this public health crisis with every applicable asset we have." Dr. Howard emphasized, "These challenges are many, and they are historic."³

¹Camus A [1947]. *The plague*. New York: Vintage Books.

²Howard J [2020]. Examining the federal government's actions to protect workers from COVID-19. Testimony before the Committee on Education and Labor Subcommittee on Workforce Protections United States House of Representatives. Rayburn House Office Building, Room 2175, May 28, 2020, 10:15 a.m., <https://www.congress.gov/116/chrg/CHRG-116hhrg41104/CHRG-116hhrg41104.pdf>.

³Howard, Testimony May 28, 2020.

Three Key Factors Required for a Respirator to be Effective

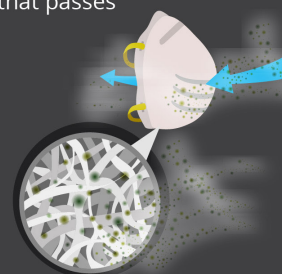
Infographic by NIOSH.



① The respirator must be put on correctly and worn during the exposure.

② The respirator must fit snugly against the user's face to ensure that there are no gaps between the user's skin and respirator seal.

③ The respirator filter must capture more than 95% of the particles from the air that passes through it.



*If your respirator has a metal bar or a molded nose cushion, it should rest over the nose and not the chin area.

This NIOSH infographic, first published in January 2018, became an important information source during the COVID-19 pandemic. It was republished in a NIOSH Science Blog post in March 2020.

COVID-19 went on to become the greatest worldwide threat to public health in more than 100 years.⁴

COVID-19 and the Frontline Workforce

Early response efforts focused on preparing for, containing, and stopping the virus from being introduced into the United States by international travelers. In February 2020, NIOSH developed guidance to help businesses and employers plan for and respond to the virus. Once inside the United States, the goal was saving lives and reducing the stress on the healthcare system.

In March 2020, the response shifted to protecting essential workforces. NIOSH developed guidance and tools to protect essential workers in industries that kept the nation running, and it ramped up its Respirator Approval Program to get much needed respirators to frontline workers. Businesses that employed essential workers were obligated to manage work in a way that kept their workers safe and healthy. By April 2020, NIOSH had assigned staff to 36 sites in 12 states, covering 5 pork, 19 poultry, and 11 beef processing plants.² In May 2020,

NIOSH moved from helping businesses prepare, to helping them respond to COVID-19 in the workplace.

People, communities, public health agencies, medical providers, businesses, and schools all relied on CDC and NIOSH subject matter experts for trusted guidance for responding to COVID-19. Workers belong to and live in communities. When outbreaks occur in communities, illness can be introduced into the workplace. Outbreaks of illness in workplaces can also introduce illness into communities.

⁴Wozniczka D, Demeke HB, Thompson-Paul AM, Ijeoma U, Williams TR, Taylor AW, Tan KR, Chevalier MS, Agyemang E, Dowell D, Oduyebo T, Shirferaw M, King SM, Minta AA, Shealy K, Oliver SE, McLean C, Glover M, Iskander J [2021]. Real-time CDC consultation during the COVID-19 Pandemic—United States, March–July, 2020. *Int J Environ Res Public Health*, 18(14):7251, <https://doi.org/10.3390/ijerph18147251>.

The food and agriculture industry is a part of the U.S. critical infrastructure. NIOSH developed a broad range of guidance and tools to help employers keep this essential workforce safe and healthy. One example of this work was giving guidance for meat and poultry processing workers and employers.

NIOSH focused on workers with increased risk for exposure. This could be from where they worked or lived. The virus spread fast among people who worked in long-term care facilities (nursing homes), prisons, and other congregate settings.

Public health actions in these settings focused on using controls to prevent the spread of the virus that causes COVID-19. This included screening for symptoms, testing, quarantining, and isolating; cleaning and disinfection; restricting visitors; physical distancing; increased ventilation, high efficiency particulate air (HEPA) filtration; and personal protective equipment such as respirators.

Phases of the NIOSH COVID-19 Response

January–April 2020:

- Supported the CDC by leading the Worker Safety and Health team.
- Deployed staff to support traveler screening at airports, quarantine stations, and repatriation sites.
- Released “[The Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\)](#).”
- Developed strategies to increase and conserve respirator and other personal protective equipment (PPE) supplies in healthcare settings.
- Provided technical support to the Food and Drug Administration’s emergency use authorization of respirators not approved by NIOSH.
- Supported the CDC in protecting healthcare personnel from COVID-19.

May–July 2020:

- Increased supply of NIOSH-Approved[®] respirators through

increasing approvals.

- Expanded support to include more types of workplaces.
- Supported state and local health departments.
- Developed guidance and other communication products for employers and employees.

July 2020–June 2021:

- Focused on guidance for opening and restarting businesses.
- Expanded support to Tribal Nations.
- Developed new guidance and updated existing guidance.
- Focused on key workplaces, such as schools.
- Issued NIOSH COVID-19 research agenda.

July 2021–January 2022:

- Updated and consolidated COVID-19 guidance for workers and employers.
- Supported the Occupational Safety and Health Administration in developing an Emergency Temporary Standard to protect healthcare workers from the virus that causes COVID-19.



Photo by Tempura/Getty Images.

Healthcare workers perform an intubation procedure on a patient with COVID-19 in July 2020.



Photo by Grandriver/Getty Images.

NIOSH staff traveled to help tribal nations protect their populations from COVID-19.



Photo by Library of Congress.



Photo by Library of Congress.

Above left, a homemade sign, like this one on social distancing, in front of a New York, NY, grocery store was a common sight in 2020. Above right, healthcare facilities honored healthcare workers in New York, NY, with this banner.

- Transitioned workplace COVID-19 activities previously led by the Worker Safety and Health Team into NIOSH to continue supporting workers and employers.

NIOSH COVID-19 Response Activities

NIOSH was involved in a broad range of response activities from the beginning. These activities included the following:

- Developed guidance and other communication products.
- Reached out to businesses, governmental agencies, communities, and others.
- Tested, evaluated, and approved respirators.
- Provided support to health departments, employers, and employees.
- Conducted research.

Some of these activities are highlighted below:

Guidance and Other Communication Products

NIOSH developed at least 31 guidance products and 56 fact sheets for the following industries:

- Agriculture
- First responders
- Food services
- Manufacturing and industrial
- Personal services and hospitality
- Public services and sanitation
- Schools
- Transportation
- Healthcare
- Essential services
- General businesses
- Delivery⁵

NIOSH also published strategies for [optimizing supplies](#) of personal

protective equipment to maximize protection to healthcare workers in the face of shortages.

NIOSH developed communication products on workplace violence, cleaning and disinfection, fatigue and stress, and how to extend respirator supplies. After the vaccine came out, NIOSH published more resources to prevent needlestick injuries for healthcare personnel giving the vaccine.

Technical Assistance

NIOSH staff provided field and virtual assistance to many companies and agencies during the COVID-19 response. They helped a wide range of workplaces—from hospitals to factories—prepare and respond to the pandemic. They helped companies with personal protective equipment and engineering controls. For example, NIOSH engineers developed ventilation guidance and also answered ventilation questions

⁵Howard J, Kitt M, Delaney L [2021]. NIOSH efforts to keep workers and the country safe during the pandemic. NIOSH Science Blog, <https://blogs.cdc.gov/niosh-science-blog/2021/01/04/niosh-covid19-response/>.



Photo by CDC

In the earliest days of the COVID-19 pandemic, more than 200 people were evacuated to Marine Corps Air Station (MCAS) Miramar from Wuhan, China, in February 2020. They were assisted by CDC staff including NIOSH environmental health officer CAPT Bradley King (far left).

from workplaces around the country. As the pandemic moved into 2021, staff tackled workplace issues related to vaccination and helped reduce the spread of COVID-19 in workplaces that were helping unaccompanied children at the Southwest border.

NIOSH employees also helped U.S. citizens returning from cruise ships and countries affected by COVID-19. Later, NIOSH staff went to states and tribal nations across the country. Staff assessed workplaces and traced COVID-19 contacts in communities that had surges in cases. NIOSH also improved the reporting of

industry and occupation on death certificates. NIOSH used job information on death certificates to learn which industries or jobs had more COVID-19 deaths. Researchers used this information to identify workers and their workplaces at greatest risk.

NIOSH also developed various guidance and communication products to protect workers and the public against COVID-19.

- Ventilation
- Screening
- Distancing
- Vaccinations
- Mask types and wearing
- Hand washing

- Cleaning and disinfection
- Respirators

Respiratory Protection Approvals, Testing, Evaluation, and Tools

Widespread respirator shortages left many healthcare workers without the protection they needed to do their jobs. Even those providing COVID-19 patient care didn't always have access to the proper PPE, including N95® filtering facepiece respirators, to protect themselves.

NIOSH approves respirators for occupational use so that the people



Photo by Alberto Giuliani/Wikimedia Commons.

A anesthesiologist in an intensive care hospital rests in a hallway. She was exhausted from her work with patients with COVID-19 early in the pandemic.

who wear them can be confident that a NIOSH Approved[®] respirator will protect them when used properly. Businesses and millions of workers rely on NIOSH's Respirator Approval Program.

During the COVID-19 pandemic, NIOSH published guidance to increase the supply of N95 respirators. NIOSH also did the following to help improve the supply:

- Helped federal partners to expand the types of respirators permissible for use in healthcare.
- Provided technical support to test and evaluate non-NIOSH filtering facepiece respirators that were not approved by NIOSH.

⁶Howard, Testimony May 28, 2020.

- Evaluated respirators and marketing materials and partnered with federal investigators such as U.S. Customs and Border Protection to address counterfeit and misrepresentation issues.
- Trademarked key NIOSH terminology.
- Established a pathway to apply for temporary public health emergency approvals.
- Published an interim final rule that established a new approval pathway for powered air-purifying respirators (PAPRs) that are appropriate for use in healthcare settings.
- Prioritized applications relevant to the pandemic.

In April 2020, NIOSH more than tripled the speed of respirator approval decisions⁶ to help make more respirators available for the workers who need them. NIOSH did this by asking Respirator Approval Program staff to work longer shifts, 7-days a week. This increased the approval speed of respirators. New approval pathways contributed to increasing the supply of N95 filtering facepiece respirators and elastomeric half mask respirators as well as PAPRs.

To expand the range of respirators available to healthcare personnel, NIOSH worked with the Food and Drug Administration to make more respirators available to use in healthcare settings.



Photo by LukaTDB/Getty Images.

Healthcare workers faced grueling hours, workplace stress, and risks of infection during the COVID-19 pandemic.

NIOSH also developed a [PPE Burn Rate Calculator](#) to calculate the consumption rate for average PPE, to estimate how many days a PPE supply will last given current inventory levels, and to find the PPE use rate.

Research

In 2015, NIOSH established

the Disaster Science Responder Research (DSRR) program within NIOSH's Emergency Preparedness and Response Office. Its goal is to develop approaches to conducting disaster research before, during, and after a public health emergency.

In early March 2020, NIOSH formed a team to look at new worker safety and health concerns

related to COVID-19 from nine topic areas. These areas included the following:

- Economics
- Engineering controls
- Epidemiology and surveillance
- Mental health
- Workplace environmental and exposure assessment
- Workplace violence
- PPE
- Transmission and workplace health
- Zoonosis

A team of NIOSH experts reviewed [COVID-19 research](#) related to each area.

These reviews helped NIOSH identify key findings and research gaps, develop a COVID-19 research agenda, including long-term COVID-19 research goals in NIOSH's strategic plan, and support funding internal "just-in-time" research projects.

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NIOSH COVID-19 RESEARCH

How Data Informed Guidance During the COVID-19 Pandemic

By Cheryl Hamilton, NIOSH Writer-Editor

A Pandemic Unfolds

The COVID-19 pandemic began quietly late in 2019 as an unknown respiratory illness in China's Wuhan Province. On January 21, 2020, CDC activated its Emergency Operations Center (EOC). Not long after, as the virus swept into the United States, shortages of personal protective equipment (PPE) for healthcare workers arose. NIOSH quickly kicked into gear.

Focus on Healthcare Workers

As NIOSH responded to the pandemic, one of the Institute's first priorities was protecting the health of healthcare workers. The pandemic created a nationwide respirator supply chain problem. Manufacturers could not produce enough respirators to meet the

demand. NIOSH went to work, increasing its respirator application decisions from an average of 400 per year to over 800 in 2020 alone. As healthcare workers sought advice about respirators, the question of how to stretch the current supplies and create new opportunities for expanding supplies emerged. At the same time, the public sought advice on the use of medical masks and face coverings to reduce their risk of becoming infected.

Making the Most of Respirator Supplies

The respirator shortage was a huge challenge early in the pandemic. As healthcare workers cared for rising numbers of sick patients, workers and employers looked for ways to add to their scarce N95 filtering facepiece respirator (N95 respirator) supplies. NIOSH



Photo by Health Image Library 24616.

Healthcare workers in a skilled nursing facility test residents for the virus that causes COVID-19.

scientists studied this challenge, offering strategies to protect healthcare workers. These included ways to apply the [hierarchy of controls](#) to extend N95 respirator supplies while maximizing protection of workers [de Perio et al. 2020]. Employers and employees could use the information to safely and smartly make the most of their N95 respirator supplies.

Frontline healthcare workers wanted to know if they could safely reuse their disposable N95 respirators, a strategy CDC temporarily advised during times of crisis to get through a surge of COVID-19 cases. NIOSH scientists worked in their laboratories to find the answer. They discovered that waiting 5 days reduced virus levels by 93.4%–99.0% on the outside of the N95 respirator, depending on the humidity level [Fisher et al. 2021]. With this reassuring data, frontline workers could feel safer reusing their N95 respirators with the proper handling and storage during times of severe shortages.

Some healthcare workers wear N95 respirators with an exhalation

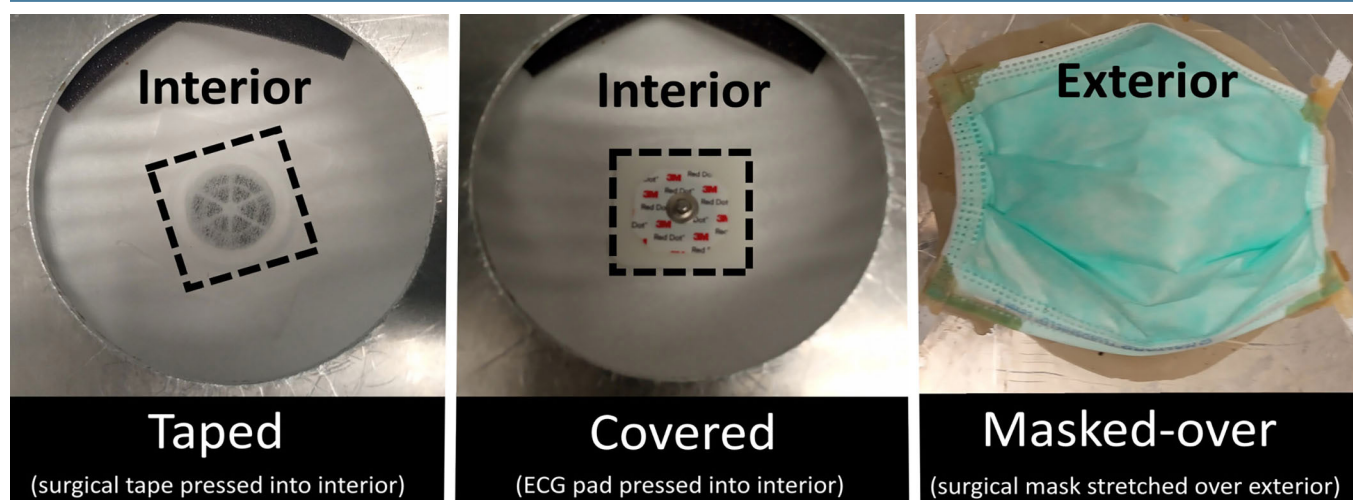
valve that opens when the wearer breathes out. The one-way valve reduces exhalation resistance and can be more comfortable to wear for extended periods. However, unfiltered and potentially infectious droplets are released to the environment. For this reason, early during the pandemic, the CDC had recommended wearing a mask on top of N95 respirators with an exhalation valve. NIOSH researchers wanted to know if that was an effective mitigation strategy, if taped or covered valves provided a better mitigation, and if open, unmitigated exhalation valves posed a problem. Their study found that taping or covering the valves from the inside was the most effective way to reduce the number of particles emitted from the N95 respirator when exhaling.

The study found that even without anything covering the exhalation valve, the number of particles emitted was similar to that of cloth, procedural, and surgical masks. Also, putting a mask over the exhalation valve was not the most effective way to reduce the number of particles

emitted [NIOSH 2020a]. This was the first study to quantify the particles emitted through exhalation valves. CDC updated its guidance based on this study, opening an option for the emergency use of N95 respirators with an exhalation valve in healthcare settings. Additionally, one respirator manufacturer received approval from NIOSH for a respirator configuration that uses a specific taping method for its exhalation valves. This meant that more respirator options were available to healthcare workers.

Effectiveness of Stockpiled Respirators

The federal government—along with states, counties, and hospitals—strategically keeps large quantities of N95 respirators in long-term storage, ready to use in an emergency where demand may outpace supply. With the COVID-19 pandemic, that emergency had arrived. However, in early 2020, these many types of stockpiles stored hundreds of millions of N95 respirators that were



Infographic by NIOSH.

Three ways to cover the breathing valve on a filtering facepiece respirator.

at least 5 years old, many past their manufacturer-specified shelf life.

It was unknown whether N95 respirators past their shelf life remained effective. Importantly, NIOSH had already begun a study to explore this issue in 2018. NIOSH moved swiftly to analyze and interpret the performance data from over 4,000 stockpiled respirators that were collected from 10 federal, state, and regional stockpile facilities from that study. These N95 respirators were evaluated to determine if they met the minimum NIOSH requirements for filtration efficiency and breathing resistance. This study found that while 98% of the sampled N95 respirators met NIOSH's performance requirements despite most being past their shelf life, two specific models would not be protective if stored past their shelf life. NIOSH published its methodology and findings across 12 documents, providing the evidence needed to establish an FDA Emergency Use Authorization and release of hundreds of millions of N95 respirators from stockpiles that were beyond their shelf life [Greenawald 2020].

Reusing and Decontaminating Respirators

N95 respirator shortages also caused many healthcare workers to reuse respirators. Early in the pandemic (2020), CDC published evidence-based reuse guidance using NIOSH research in this area that began as far back as 2006. Research into methods for decontaminating respirators was crucial to protecting workers who handle

respirators that had formerly been contaminated with viruses [Fisher and Shaffer 2014, Fisher et al. 2009, Fisher et al. 2012]. NIOSH research was also crucial when considering the integrity of the respirator straps and nosepiece after multiple wears and how that may impact the ability of the respirator to provide a sufficient fit to the wearer's face [Bergman et al. 2012]. This research provided the evidence that drove CDC guidance (2020) that only "limited reuse" (not to exceed five separate wears) should be implemented only in times of shortages. The FDA used NIOSH's research to inform its [Emergency Use Authorization](#) respirator decontamination methods (issued in January 2021 and revoked in June 2021 as respirator availability increased).

NIOSH also set up a service function to assess respirators by studying the effects of different decontamination methods. The particulate filtration performance, fit, and strap integrity of the N95 respirators were assessed. These assessments were free and open to the public. Decontamination system developers used NIOSH's services to evaluate how their decontamination method affected respirator performance. NIOSH produced 42 [assessment reports](#) based on its evaluations of more than 20 decontamination methods where 1,350 respirators were tested in all. The FDA used NIOSH testing methods and NIOSH guidance to establish [Decontamination Systems for Personal Protective Equipment Emergency Use Authorizations](#) for 13 decontamination systems. This resulted in millions of N95 respirators being safely reused across the country.

Studying Infected Healthcare Workers Within Race and Ethnic Groups

To further protect healthcare workers, NIOSH researchers studied healthcare workers with COVID-19. NIOSH co-led the analysis of almost 9,300 COVID-19 cases among healthcare workers reported by states to CDC from February 12 to April 9, 2020. The results provided the first national-level healthcare workers COVID-19 case numbers. This included information on sex, age, race, possible place of infection, presence of underlying health conditions, and illness and death. The study demonstrated that it is critical to ensure the health and safety of healthcare workers, both at work and in the community. Improving surveillance through routine reporting of occupation and industry of individuals with disease would not only benefit healthcare workers, but all workers [Burrer et al. 2020]. The findings resulted in adding more healthcare work-related questions to the COVID-19 National Case Report Form and creating a public-facing CDC dashboard for national healthcare workers cases and deaths. The study was widely read and cited by the World Health Organization, Amnesty International, and the United Kingdom government in policy documents and by others over 600 times. An update to this study was [published](#) in September 2020.

Other studies noted that people in some racial and ethnic groups were more likely than others to get COVID-19. A NIOSH scientist



Photo by Hispanolistic/Getty Images

Food service employees in 2020 often wore disposable masks to reduce the chance of spreading infections.

Wearing a mask that fits tightly to your face can help limit spread of the virus that causes COVID-19

02/10/2021

In lab tests with dummies, exposure to potentially infectious aerosols decreased by **about 95%** when they both wore tightly fitted masks

Other effective options to improve fit include:

- Cloth mask over medical procedure mask
- Medical procedure mask with knotted ear loops and tucked-in sides
- Mask fitter
- Nylon covering over mask

CDC.GOV bit.ly/MMWR21021 MMWR

Infographic by NIOSH.

Study results show that mask adjustments or a cloth mask over a medical procedure mask highly impact their effectiveness.

studied data to see if these groups more often worked in jobs with a potentially higher risk for COVID-19, such as food service and bus driving. These are jobs where workers had faced increased challenges in practicing preventive measures, such as physical distancing or working from home.

Results showed that Black and Hispanic or Latino people make up a high number of employees in these potentially riskier jobs; therefore, their jobs could be a risk factor for COVID-19 [Asfaw 2021]. Another study found that a higher proportion of Black and Hispanic or Latino workers in

some jobs may be at an increased risk for exposure to the virus that causes COVID-19 because their work involved being closer to others [Cox-Ganser and Henneberger 2021]. These studies provided reasons to increase focus on these worker groups during the COVID-19 response, offering them all preventive measures possible, including vaccinations.

Mask Effectiveness Study

NIOSH researchers did a study that used simulators (manikins) to see if improving the fit of masks made them more effective. They looked at two ways of improving fit: first, by knotting the ear loop of a medical procedural mask to reduce open edges around the face; and second, by wearing two masks with a cloth mask over a medical procedural mask. The results showed that getting a better fit could help contain more exhaled respiratory droplets coming from someone—both when they cough and when they are breathing regularly. Improving mask fit also lessened the total exposure of someone receiving the particles, especially if that person is also wearing a well-fitted mask [Brooks et al. 2021]. As of mid-August, 2021, this article had almost half-a-million views.

On February 10, 2021, days before the Brooks et al. study was originally published, CDC Director Rochelle Walensky spoke during a [White House coronavirus briefing](#). She said that mask guidance would be changing because of the new data. She stated that masks work, and they work better when worn properly and



Photo by Tumsasodgar/Getty Images.

Many businesses closed because of the pandemic.

fitted correctly. Further, she said that wearing tighter or layered masks made them more effective and better protected users.

Pandemic Job Loss

Living and working in a pandemic increased stress for everyone. As a result of the pandemic, many people lost their jobs or had their hours reduced or increased. In one study, NIOSH scientists looked at the effects of pandemic job loss. They noted much worse mental and physical health outcomes for those who experienced work changes and were in lower income groups. The study results pointed to giving continued support of these workers, both financially and socially [Guerin et al. 2021].

NIOSH COVID-19 Related Research Beyond Healthcare Workers

NIOSH focuses on all workers, offering job-specific recommendations based on scientific research and data. Some of this work appears in the next section. In March 2021, NIOSH developed a

COVID-19 research agenda to help plan and make priorities for NIOSH’s COVID-19 related occupational research. The agenda recognized nine critical areas to guide NIOSH COVID-19 research:

1. Economics
2. Engineering controls
3. Epidemiology/surveillance
4. Mental health
5. Workplace environmental/exposure assessment
6. Workplace violence
7. PPE
8. Transmission/workplace health
9. Zoonosis [NIOSH 2021]

This occupational research agenda also identified priority gaps that should be addressed.

Ventilation in Ambulances

NIOSH researchers conduct studies to learn more on how viruses spread in order to keep workers safe. In one such study done before the pandemic, NIOSH researchers saw a need and studied how an ambulance ventilation system

might lessen the exposure of emergency medical service workers to particles in the air. This information was critical because emergency workers transport infected, coughing patients in a confined space. Researchers found that, even when the air inside the ambulance is exchanged quickly with fresh air from outside, current ventilation systems don’t give enough protection; nor does staying behind a patient’s head. The results helped inform guidance for emergency workers. The results also showed that control systems needed to be improved, and workers should take action—such as wearing respirators—to keep themselves safe [Lindsley et al. 2019].

Meatpacking and Poultry Processing

Meatpacking and poultry processing were hit hard by the pandemic. These plants, usually in rural communities, employ workers who largely consist of immigrants and people from racial and ethnic minority groups. These workplaces



Photo by Gorodenkoff/Getty Images.

Emergency workers wearing protective equipment in an ambulance with a patient.

needed help quickly to keep operating. NIOSH sprang into action, assessing the plants and creating guidance for employees and employers. This guidance included separating workers to maintain physical distance, increasing disinfection and ventilation, and educating workers on how the virus that causes COVID-19 spreads [NIOSH 2020c,d].

Wildland Firefighters

Wildland firefighters are essential workers and data shows that wildfires have increased in the size of the area they burn. Firefighters live and work in congregate settings and remote locations as they fight fires. NIOSH researchers wanted to see if wildland firefighters' work conditions and environment affected their risk for COVID-19 and severity of disease. Researchers studied the effects of particles in the air from wildfire smoke as well as other working conditions. Researchers learned that wildland firefighters face a higher risk for severe COVID-19 and disease outcomes [Navarro et al. 2021]. This information could help reduce risks for those workers, as well as others exposed to wildfire smoke. NIOSH staff also authored a frequently asked questions resource for wildland firefighters that provides recommendations to prevent COVID-19 in this worker population.

Work-specific Guidance

Throughout the pandemic, NIOSH produced dozens of workplace-specific guidance documents and contributed to others. These included guidance for workers in

manufacturing [NIOSH 2020b], airlines [NIOSH 2020e,f,g,h,i,j,k,l], banks [NIOSH 2020m], and recycling centers [NIOSH 2020n], to name a few. These industry-specific guidance documents, in the form of fact sheets and plain language publications, reached workers and employers in the workplace, giving them practical and valuable guidance to prevent the spread of COVID-19.

Effectiveness of Masks, Gaiters, and Face Shields

A team of NIOSH researchers studied the effectiveness of masks, neck gaiters, and face shields in keeping a user's respiratory aerosols from spreading during a cough. Through this study we learned that masks and gaiters protected those around us better than face shields. The study results were widely distributed. As a result of this data, CDC updated its mask guidance, recommending that masks worn be two-ply, and recommending that a face shield not be a substitute for mask-wearing [Lindsley et al. 2021]. Another NIOSH study looked at how mask fit modifications, including using a mask brace, improved the performance of a face mask as a source control device [Blachere et al. 2022]. The results showed that how effectively a mask blocks viruses depends on how well the mask material filters exhaled aerosols and how well the mask fits the wearer.

As the pandemic grew, more workers joined in the efforts. Along with healthcare staff in hospitals and medical offices, workers responded to COVID-19

outbreaks in settings where people gather, like homeless shelters and cruise ships. A group of workers showed flu-like symptoms after responding to the quarantine of cruise ship passengers after a COVID-19 outbreak at sea. NIOSH researchers wanted to know if these workers got COVID-19 despite the use of preventive measures. Researchers found that of the nine workers reporting flu-like symptoms, two tested positive for the flu, and nine tested negative for COVID-19. Based on the results of this study, workers could be more confident that preventive measures, such as wearing effective masks, gaiters, and face shields, protected them from the virus [Harvey et al. 2022].

NIOSH Scientists Sent to Support Vaccines Studies in the Broader COVID-19 Response

In two studies, NIOSH scientists traveled to work with others in CDC to learn more about COVID-19 vaccines. In the first study, in the summer of 2021, the Delta variant was spreading more easily than previous COVID-19 variants. NIOSH researchers contributed to the study of how vaccinated people at a large public gathering tested positive for COVID-19 [Brown et al. 2021]. CDC changed its guidance the day after the study was published, recommending that all people, including those who had been vaccinated, wear masks in public places in areas where COVID-19 is spreading rapidly. Through this work, we learned more about the

spread of the Delta variant, as well as the positive effect of preventive measures, such as wearing masks and physical distancing. As of mid-August, 2021, the article had more than 700,000 views.

A second CDC vaccine study that NIOSH contributed to focused on the safety of COVID-19 vaccinations for pregnant people. In this study, preliminary results found no safety concerns for pregnant people who received COVID-19 vaccinations, although the study did recommend long-term follow-up to learn more about maternal and child health [Shimabukuro et al. 2021]. In April 2021, CDC Director Walensky cited the Shimabukuro et al. study in a [press briefing](#), saying that CDC recommended that pregnant people should receive the COVID-19 vaccine. She further said that vaccinations appeared safe for those in their third trimesters. Within about 2 months, this article received almost 2 million views.

Living During a Pandemic

Over 2 years have passed since the COVID-19 pandemic began, and what is around the corner is unknown. Living with COVID-19 means living with vaccines, testing, and preventive measures with an eye on data to make sure these strategies keep working.

Testing for the virus that causes COVID-19 was part of the process to safely return to our workplaces and schools. NIOSH published several articles giving employers and workplaces a framework to set up screening testing in non-



Photo by SDI Productions/Getty Images.

Businessman cleans conference table during COVID-19 pandemic.

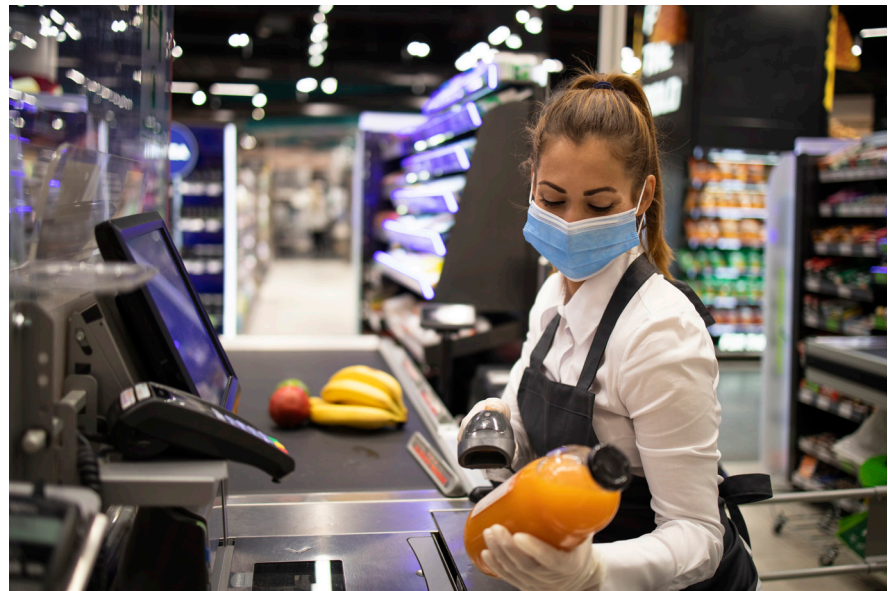


Photo by Smederevac/Getty Images.

Cashier in supermarket wearing mask and gloves behind a transparent barrier during the COVID-19 pandemic.

healthcare workplaces [Schulte et al. 2021a], and pooled employee testing in areas where the virus is not spreading as fast [Schulte et al. 2021b]. The [World Health Organization](#) and [OSHA](#) cited these approaches in policy documents.

NIOSH continues to offer data-driven information to

protect workers. For example, NIOSH researchers studied how using multiple ways to lessen the chance of spreading the virus—such as universal masking, physical distancing, and HEPA air cleaners—reduced aerosol exposure in a meeting room [Coyle et al. 2021]. Another

NIOSH study focused on how well transparent barriers work to protect workers from the virus that causes COVID-19. This study gave preferences for what barrier height and width should be used for workers who either sit or stand as they face their customers [Bartels et al. 2022]. These continuing studies provide the data needed to create science-based policies to keep workers safe in the workplace as we all pivot toward a world where we live with COVID-19.

References

- Asfaw A [2021]. Racial disparity in potential occupational exposure to COVID-19. *J Racial Ethn Health Disparities*: Epub ahead of print, 2021 August.
- Bartels J, Estill CF, Chen IC, Neu D [2022]. Laboratory study of physical barrier efficiency for worker protection against SARS-CoV-2 while standing or sitting. *Aerosol Sci Tech* 56(3):295–303.
- Bergman MS, Viscusi D, Zhuang Z, Palmiero AJ, Powell J, Shaffer R [2012]. Impact of multiple consecutive donnings on filtering facepiece respirator fit. *Am J Infect Control* 40(4):375–380.
- Blachere FM, Lemons AR, Coyle JP, Derk RC, Lindsley WG, Beezhold DH, Woodfork K, Duling MG, Boutin B, Boots T, Harris JR, Nurkiewicz T, Noti JD [2022]. Face mask fit modifications that improve source control performance. *Am J Infect Control* 50(2):133–140.
- Brooks JT, Beezhold DH, Noti JD, Coyle JP, Derk RC, Blachere FM, Lindsley WG [2021]. Maximizing fit for cloth and medical procedure masks to improve performance and reduce SARS-COV-2 transmission and exposure. *MMWR* 70(7):254–257.
- Brown CM, Vostok J, Johnson H, Burns M, Gharpure R, Sami S, Sabo RT, Hall N, Foreman A, Schubert PL, Gallagher GR, Fink T, Madoff LC, Gabriel SB, MacInnis B, Park DJ, Siddle KJ, Harik V, Arvidson D, Brock-Fisher T, Dunn M, Kearns A, Laney AS [2021]. Outbreak of SARS-CoV-2 infections, including COVID-19 vaccine breakthrough infections, associated with large public gatherings—Barnstable County, Massachusetts, July 2021. *MMWR* 70(31):1059–1062.
- Burrer SL, de Perio MA, Hughes MM, Kuhar DT, Luckhaupt SE, McDaniel CJ, Porter RM, Silk B, Stuckey MJ, Walters M [2020]. Characteristics of health care personnel with COVID-19—United States, February 12–April 9, 2020. *MMWR* 69(15):477–481.
- Cox-Ganser JM, Henneberger PK [2021]. Occupations by proximity and indoor/outdoor work: relevance to COVID-19 in all workers and Black/Hispanic workers. *Am J of Prev Med* 60(5):621–628.
- Coyle JP, Derk RC, Lindsley WG, Blachere FM, Boots T, Lemons AR, Martin SB Jr., Mead KR, Fotta SA, Reynolds JS, McKinney WG, Sinsel EW, Beezhold DH, Noti JD [2021]. Efficacy of ventilation, HEPA air cleaners, universal masking, and physical distancing for reducing exposure to simulated exhaled aerosols in a meeting room. *Viruses* 13(12):2536.
- de Perio MA, Dowell CH, Delaney LJ, Radonovich LJ, Kuhar D, Gupta N, Patel A, Pillai SK, D'Alessandro M [2020]. Strategies for optimizing the supply of N95 filtering facepiece respirators during the coronavirus disease 2019 (COVID-19) pandemic. *Disaster Med Public Health Prep* 14(5):658–669.
- Fisher E, Rengasamy S, Viscusi D, Vo E, Shaffer R [2009]. Development of a test system to apply virus-containing particles to filtering facepiece respirators for the evaluation of decontamination procedures. *J Appl Environ Microbiol* 75(6):1500–1507.
- Fisher EM, Shaffer RE [2014]. Considerations for recommending extended use and limited reuse of filtering facepiece respirators in health care settings. *J Occup Environ Hyg* 11(8):D115–D128.
- Fisher EM, Richardson AW, DH Shannon, Hofacre KC, Shaffer RE [2012]. Reaerosolization of MS2 bacteriophage from an N95 filtering facepiece respirator by simulated coughing. *Ann Occup Hyg* 56(3):315–325.
- Fisher EM, Kuhlman MR, Choi YW, Jordan TL, Sunderman M [2021]. Persistence of SARS-Co-V-2 on N95 filtering facepiece respirators: implications for reuse. *J Occup Environ Hyg* 18(12):570–578.
- Greenawald LA, Moore SM, Yorio PL [2020]. Inhalation and exhalation resistance and filtration performance of stockpiled air-purifying respirators: overall performance of nearly 4,000 respirators sampled from ten stockpile facilities. Pittsburgh, PA: U.S.

- Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NPPTL Report Number P2020-0111:1–36.
- Guerin RJ, Barile JP, Thompson WW, McKnight-Eily L, Okun AH [2021]. Investigating the impact of job loss and decreased work hours on physical and mental health outcomes among US adults during the COVID-19 pandemic. *J Occup Environ Med* 63(9):e571–e579.
- Harvey RR, Nett RJ, McNamara K, McClung RP, Pieracci EG, Mayer O, Labar KA, Xu K, Facey J, Honein MA [2022]. Influenza-like illness among personnel responding to U.S. quarantine of cruise ship passengers exposed to SARS-CoV-2. *J Occup Environ Med* 64(1):58–63.
- Lindsley WG, Blachere FM, Law BE, Beezhold DH, Noti JD [2021]. Efficacy of face masks, neck gaiters and face shields for reducing the expulsion of simulated cough-generated aerosols. *Aerosol Sci Tech* 55(4):449–457.
- Lindsley WG, Blachere FM, McClelland TL, Neu DT, Mnatsakanova A, Martin SB Jr., Mead KR, Noti JD [2019]. Efficacy of an ambulance ventilation system in reducing EMS worker exposure to airborne particles from a patient cough aerosol simulator. *J Occup Environ Hyg* 16(12):804–816.
- Navarro KM, Clark KA, Hardt DJ, Reid CE, Lahm PW, Domitrovich JW, Butler CR, Balmes JR [2021]. Wildland firefighter exposure to smoke and COVID-19: a new risk on the fire line. *Sci Total Environ* 760:144296.
- NIOSH [2021]. NIOSH Disaster Science Response Research Program: COVID-19 research agenda. By NIOSH. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021–113, <https://www.cdc.gov/niosh/docs/2021-113/default.html>.
- NIOSH [2020a]. Filtering facepiece respirators with an exhalation valve: measurements of filtration efficiency to evaluate their potential for source control. Technical Report. By Portnoff L, Schall J, Brannen J, Suhon N, Strickland K, Meyers J. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021–107, <https://www.cdc.gov/niosh/docs/2021-107/default.html>.
- NIOSH [2020b]. Manufacturing facilities: key strategies to prevent COVID-19 infection among employees. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/89870>.
- NIOSH [2020c]. Meat and poultry processing facilities: key strategies to prevent COVID-19 infection among employees. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/96947>.
- NIOSH [2020d]. Meat and poultry processing employees: things you can do at work and at home to protect from COVID-19. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/96948>.
- NIOSH [2020e]. What airline workers need to know about COVID-19: aircraft maintenance worker. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/96947>.
- NIOSH [2020f]. What airline workers need to know about COVID-19: airline catering kitchen workers. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/96948>.
- NIOSH [2020g]. What airline workers need to know about COVID-19: airline catering truck drivers and helpers. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/96948>.

- NIOSH [2020h]. What airline workers need to know about COVID-19: airport baggage and cargo handlers. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
- NIOSH [2020i]. What airline workers need to know about COVID-19: airport custodial staff. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
- NIOSH [2020j]. What airline workers need to know about COVID-19: airport passenger assistance workers. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
- NIOSH [2020k]. What airline workers need to know about COVID-19: customer service representatives and gate agents. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
- NIOSH [2020l]. What airline workers need to know about COVID-19: retail or food service workers. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
- NIOSH [2020m]. What bank employees need to know about COVID-19. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, <https://stacks.cdc.gov/view/cdc/89878>.
- NIOSH [2020n]. What waste collectors and recyclers need to know about COVID-19. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.
- Schulte PA, Piacentino J, Weissman DN, de Perio MA, Chiu SK, Radonovich LJ, Trout D, Beezhold D, Hearl FJ, Howard J [2021a]. Proposed framework for considering SARS-CoV-2 antigen testing of unexposed asymptomatic workers in selected workplaces. *J Occup Environ Med* 63(8):646–656.
- Schulte PA, Weissman DN, Luckhaupt SE, de Perio MA, Beezhold D, Piacentino JD, Radonovich LJ, Jr., Hearl FJ, Howard J [2021b]. Considerations for pooled testing of employees for SARS-CoV-2. *J Occup Environ Med* 63(1):1–9.
- Shimabukuro TT, Kim SY, Myers TR, Moro PL, Oduyebo T, Panagiotakopoulos L, Marquez PL, Olson CK, Liu R, Chang KT, Ellington SR, Burkel VK, Smoots AN, Green CJ, Licata C, Zhang BC, Alimchandani M, Mba-Jonas A, Martin SW, Gee JM, Meaney-Delman DM, CDC v-safe COVID-19 Pregnancy Registry Team [2021]. Preliminary findings of mRNA Covid-19 vaccine safety in pregnant persons. *N Engl J Med* 384(24):2273–2282.

The Impact of NIOSH Respirator-related Webpages

Institute Impacted Millions During the COVID-19 Pandemic

By Cheryl Hamilton, NIOSH Writer-Editor

When the COVID-19 pandemic began, many issues confronted public health experts at the same time. This included a critical shortage of respirators, particularly for healthcare workers. NIOSH responded by releasing guidance to help workers and their employers manage their respirator supplies to stay as safe as possible through the unprecedented surge in demand.

The Impact of the Personal Protective Technology Program

The Personal Protective Technology Program within NIOSH includes the NIOSH Respirator Approval Program. Staff from the Respirator Approval Program test and evaluate respirators, approving only those respirators that meet minimum requirements necessary to protect workers. The Respirator Approval Program averages 400 respirator application decisions each year, but to meet the demands of the pandemic, it completed over 800 in 2020 alone.

In the first 18 months of the pandemic, many NIOSH webpages focused on respirator guidance, which was developed and maintained by the NIOSH team in the Emergency Operations Center (EOC) and the NIOSH Personal Protective Technology Program. As the situation evolved, so did this guidance. NIOSH provided much-needed information on respirator use and identifying NIOSH Approved respirators, and Americans depended on this information.

Featured here are brief descriptions for four of the most-visited NIOSH webpages. Three were included in a list featured in a NIOSH Science blog, [The Most-viewed NIOSH Products of 2021](#). Metrics were collected in August 2021.

NIOSH Approved N95 Respirators

With NIOSH Approved N95 respirators and Surgical N95 respirators being so critical to healthcare delivery, it makes sense that the webpage that [directly lists](#) all of



Photo by Spwidoff/Getty Images

Healthcare worker wearing a NIOSH Approved N95 respirator.

these NIOSH Approved products had over 3.3 million visits and the [landing page](#) leading to the direct list received over 1.8 million visits. The page directly listing N95 respirators gives information on approved N95 respirators, including the model and approval number, manufacturer and contact information, valve or no valve, and official donning instructions. The landing page lists all particulate filtering facepiece respirators, not just N95 and Surgical N95 respirators: N99°, N100°, R95°, P95°, P99™, and P100°. Those seeking respirator alternatives to the N95 filter class were able to use information on that page to identify NIOSH Approved filtering facepiece respirators that provide more than the minimum level of protection needed for the virus that causes COVID-19. NIOSH’s [Certified Equipment List](#) has all NIOSH Approved respirators.

How to Spot Counterfeit Respirators

During the COVID-19 response, bad actors took advantage of the need for NIOSH Approved respirators. The number of counterfeit respirators, and respirators misrepresenting the NIOSH approval on the market, increased. When NIOSH became aware of these respirators, NIOSH posted them on the page, [“Counterfeit Respirators/Misrepresentation of NIOSH Approval,”](#) which has over 1.8 million visits. This webpage offers instructions on how to detect counterfeit respirators, including photographs of specific counterfeit products and a graphic showing what to look for in a genuine, approved respirator.

Ways to Meet the Demand of Respirator Shortages

During the early months of the pandemic, when there was a critical need for reliable respirators

to help protect workers, NIOSH responded by assessing respirators that claimed to meet international standards but were not NIOSH Approved. This webpage, titled [“Respirator Assessments to Support the COVID-19 Response, International Assessment Results,”](#) gave information that workers needed about the level of filtration provided by these respirators that were not approved by NIOSH. These included KN95s from China, KF94s from South Korea, and other filtering facepiece respirators from countries within the European Union. The webpage received over 1.2 million visits, mostly from the United States, China, and Canada.

These data for this article were collected, and this report was prepared in the fall of 2021. However, the work on responding to the COVID-19 pandemic continues.

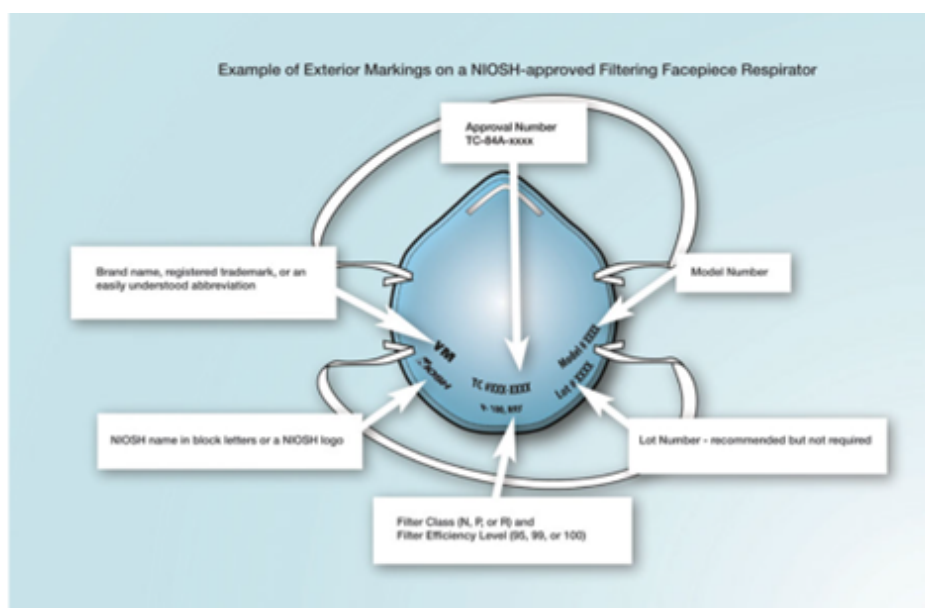


Illustration by NIOSH

Graphic from NIOSH webpage showing how to tell if a respirator is counterfeit.

Stories from the Field

Experiences of NIOSH Deployers in Support of the CDC Response to COVID-19

By Seleen S. Collins, NIOSH Writer-Editor (Former)

Even before COVID-19 was officially declared a pandemic in March 2020, NIOSH was at the forefront of efforts to keep workforces safe from the virus. When COVID-19 began to spread, NIOSH subject matter experts immediately began providing guidance to CDC employees who were fielding questions from the public, and to public health partners in various state and local agencies. But, as part of the CDC COVID-19 response work, NIOSH staff also deployed directly to locations where COVID-19 could be a source of community spread: entry points into the country (cruise ship docks and airports), and high-risk workplaces and other institutions (meatpacking, correctional facilities, and an occupational health clinic). Here are some of the stories of responders who deployed throughout the country, starting with my own experience early in the response.

U.S. Airports

Just before the first few cases of COVID-19 were confirmed in the United States, CDC sent out a request for all employees to consider volunteering to help interview passengers at several of the country's largest airports.

As a writer-editor, I supported NIOSH communication efforts during past emergency responses, but I had never had an experience like this. At long last, here was a chance to serve where responders were needed, so I jumped at the opportunity. Over the course of one weekend, I notified my supervisor, made my travel arrangements, packed a small bag, and got on a plane to Chicago.

On January 18, 2020, I arrived at Chicago O'Hare International Airport to serve as a secondary interviewer of international travelers. With my teammates—who had volunteered from other parts of CDC—I interviewed about 600 passengers daily who were arriving in Chicago directly or indirectly from China. We interviewed these travelers (both passengers and flight crew members) about possible COVID-19 symptoms and history of travel in or near Wuhan, and we gave them information about social distancing and monitoring their health. During the first few days of my deployment, between flight arrivals, I helped compile training materials and develop screening area procedures for CDC staff who were sent to O'Hare. CDC COVID-19 guidance



Photo by NIOSH.

Seleen Collins waits for air travelers to arrive in the screening area.



Photo by NIOSH.

This flight from Shanghai was one of the last to arrive at Chicago O'Hare International Airport before international travel was curtailed in February 2020.

was changing frequently because of the unknown characteristics of the virus, so we updated these materials and procedures often.

The interview process involved coordinating with the airport quarantine station staff, firefighter volunteer responders, U.S. Customs and Border Protection officers, and flight attendants who served as translators.

I was happy to have the chance to support CDC in this public safety and health effort. In those early days of COVID-19, when the virus was still “novel,” my deployment teammates and I hoped that our work would be enough to protect the nation from its effects. However, by the time I returned to my home in Virginia on February 14, COVID-19 had begun to spread. As the CDC response accelerated, many more NIOSH employees stepped up to support the rapidly growing response.

Cruise Industry

An outbreak on board the *Diamond Princess* cruise ship in February 2020 meant that 3,700 passengers and crew members needed to end their trip earlier than planned. The ship became stranded in the waters near Yokohama, Japan, and the travelers had to stay in their cabins. A U.S. effort to bring the travelers back to the United States brought the passengers to San Antonio, Texas, where they would stay in quarantine for 2 weeks at Lackland Air Force Base.

Jessica Li was one of the NIOSH scientists who traveled to San Antonio to help the group (February 16–March 6, 2020). Li

and her teammate Reed Grimes, a U.S. Public Health Service officer also working with NIOSH, led efforts to protect safety and health for evacuees quarantined in a sectioned-off area of the military base. Li and Grimes also consulted on efforts to protect team members who were assuming care of COVID-19 patients at a local hospital.

Li said that one of the most rewarding parts of the experience was going through the full 14-day quarantine with people coming back into the United States. As she chatted and visited with them while taking their temperatures, Li was able to build rapport and got to know these people as individuals in a very difficult situation. “A few arrived at the site angry, stressed, upset, and rightfully so, since they had spent days in isolation on a cruise ship,” Li said. “Now (they) were facing many more days of being stuck in a foreign place, away from home, with limited freedom. The happiest moment for me was seeing their faces and celebrations as they lined up to ‘graduate’ out of quarantine.”

Li said one of the most stressful situations she remembers was in the hours leading up to the end of their 14-day quarantine period. Some officials worried whether it was safe to let the people coming back into the United States leave and potentially interact with the public as they traveled home. “This and other situations where we had to navigate unknown territory and unforeseen problems were definitely the most stressful,” Li said.

“I am proud that as an Institute, we have maintained our presence as technical experts,” Li



Photo by NIOSH.

Jessica Li, at right, in the personal protective equipment donning area with other members of her deployment team.

said, adding that the work and accomplishments have been worth the exhausting efforts. “From this role and beyond, it has been a tiring but essential endeavor,” she said. “I am grateful to everyone who has served with me and for the experience and knowledge I’ve gained in the process. I am excited to leverage the partnerships we’ve created to improve the health and safety of our nation’s workers.”

Correctional Institutions

In autumn 2020, NIOSH researcher Wes DuBose also helped answer the call at a medium-security correctional facility when outbreaks began. DuBose’s supervisor, who was working with the response at the time, approached DuBose and said, “Hey, we might have a situation for you.” Like many deployments, the request was sudden, and the turnaround was

quick. Within 24 hours, DuBose had packed his bags and was ready to deploy as an expert in infection prevention and control.

It was mid-October when DuBose arrived at a medium-security correctional facility in Wisconsin. The facility was already in the middle of a severe COVID-19 outbreak among incarcerated persons and correctional officers. For more than 2 weeks, DuBose worked with a team of NIOSH, CDC, U.S. Public Health Service, and Wisconsin Department of Health Services representatives. “Some of us had been deployed previously and others were new and fresh, but we all understood the magnitude of the situation,” he said. “Sometimes it was overwhelming to process everything that was going on, but we were hopeful. With boots on the ground, we picked up steam and were able to make significant progress.”

The most important concern from the perspectives of epidemiology, infection prevention and control, and occupational safety and health was the intake process for newly incarcerated persons and incarcerated persons transferring from other facilities. Some had COVID-19 symptoms; others appeared healthy or asymptomatic. All were assigned to various housing units. No standardized COVID-19 intake classification system was in place to classify those who were sick and not sick. DuBose said that at first, the facility staff were not trained in how to define the cases and how to house them.

After touring and observing at the facility over several

days, the team members held a meeting with the head warden, head occupational nurse, and correctional workers to present their initial findings. They talked about how to prioritize improvements, to address both immediate and future concerns; they also provided a written report after the site visit that outlined the findings and recommendations in further detail.

“With boots on the ground, we...were able to make significant progress.”
—Wes DuBose

“We had a long list that we were able to communicate to them,” DuBose said. They had to balance that support with feedback about what was feasible for security at the facility. In making recommendations, the response team also kept in mind the morale of incarcerated persons. “We knew we needed to manage protective measures but not be forceful about it, because we didn’t want [incarcerated persons] to equate it with punishment,” DuBose said. “This was pretty difficult to deal with, but we were able to help them in a lot of ways. I was excited to be able to provide that support despite the logistics; what may be feasible in our eyes may not be feasible from the security perspective.”

DuBose said one of the most rewarding aspects of his deployment was interacting with incarcerated persons and staff members. “It was a pretty open-door policy [with the staff]. We

walked in with full personal protective equipment, and they were able to ask questions individually and in groups. It was a good opportunity just to find out what was going on, because a lot of them were scared and had questions.” His availability to incarcerated persons as a resource for health information helped them feel better and hopeful about the situation, which DuBose found especially rewarding. “Just to build that trust that we were fighting for them and their safety and health—that was our objective, and I think we were able to accomplish that.”

CDC Occupational Health Clinic

Although many NIOSH responders deployed to worksites across the country, in March 2020 Pattama Ulrich, a U.S. Public Health Service officer working with NIOSH, deployed to the Occupational Health Clinic at CDC headquarters in Atlanta. There she and a team of CDC coworkers—providers, nurses, pharmacists, and nonclinical staff members—began serving 30-day rotations providing support to the overwhelmed clinic.

“They desperately needed nurses; they had lost three people to retirement just before COVID hit,” she said.

With the pandemic, the demand for CDC deployment medical clearances through the clinic rose 800%. Her team did clinical and administrative tasks as part of the medical clearance process, to help keep deployments on track. “This included triaging requests from the CDC Emergency

Operations Center, interfacing with deployers, coordinating medical chart reviews or in-person appointments, preparing and administering required vaccines, and serving as clinical subject matter experts,” she said. The team also consulted on medicine and did health screenings for CDC staff about to deploy. The screenings could include taking vital signs, taking an electrocardiogram (EKG), doing eye examinations,

checking vaccination records and medical histories, and verifying requirements based on where staff were deploying.

“People don’t usually tie the CDC Occupational Health Clinic to the COVID-19 response, unless they go in for a screening or vaccination,” Ulrich notes. “But now our own employees were working for the safety of CDC and NIOSH deployers. Meeting them and contributing to their health and safety was one of the best parts.”



As a gift to the Occupational Health Clinic, Ulrich illustrated its mission statement for the clinic’s waiting room.

Research Highlights 2021

NIOSH communication products covered a wide range of workplace safety and health issues in 2021. These included many products to communicate important information on workplace responses to the COVID-19 pandemic.

Other workplace issues also became the focus of NIOSH research articles. These included perennial worker safety and health issues that involve preventing falls, chemical exposures, combating misinformation, the opioid overdose epidemic, workplace deaths, and many more wide-ranging topics.

Jobs With High Risk of COVID-19 Exposure Often Employ Black and Hispanic Workers

Asfaw A [2021]. Racial disparity in potential occupational exposure to COVID-19. *J. Racial and Ethnic Health Disparities*, <https://doi.org/10.1007/s40615-021-01110-8>.



Prevention measures, such as personal protective equipment, are especially important in high-risk jobs.

Job type can contribute to the disproportionately high risk of COVID-19 exposure among workers of certain racial and ethnic groups, according to a [recent study](#).

In the study NIOSH investigators considered three potential ways work could create differences in exposure to COVID-19: more exposure to infection in the workplace, less ability to maintain physical distancing when working, and allowing for remote

work from home. They used records from the March and April 2020 Current Population Survey and O*Net, a publicly available nationwide source of occupational information.

The results showed that Black and Hispanic workers disproportionately faced the highest risk of COVID-19 exposure at work. Relative to their share of the total workforce, Black workers were overrepresented in

several job types with high risk of potential exposure: occupational and physical therapy, healthcare diagnosis or treatment, health technology, other healthcare support, and funeral services.

Black workers were also overrepresented in jobs with less ability to maintain physical distancing. In addition to occupational therapy, these jobs included protective services, law enforcement, food preparation and serving, special education,

healthcare diagnosis or treatment, health technical specialties, social work, and firefighting and prevention.

Similarly, relative to their share of the total workforce, Hispanic workers were overrepresented in several jobs with less ability to work from home:

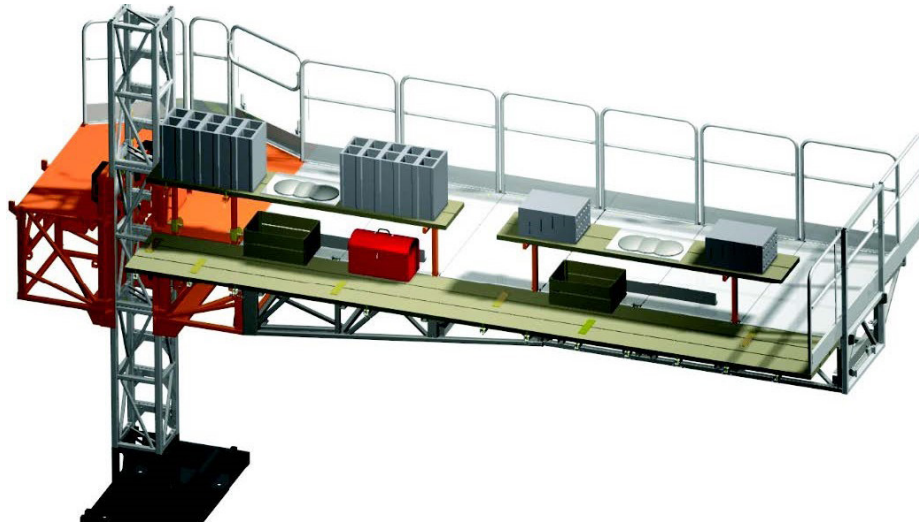
- Construction
- Forest conservation and logging
- Vehicle and mobile equipment specialties

- Water transportation
- Material moving
- Building cleaning and pest control
- Plastic, metal, and woodwork
- Food processing
- Installation

These results highlight racial disparities among workers and the importance of prevention measures, especially in high-risk jobs, such as personal protective equipment, training, ample working space, and vaccinations.

Prevention Through Design: Production Tables on Mast Climbers Can Help Prevent Falls and Reduce Back Injuries

Pan CS, Ning X, Wimer B, Zwiener J, Kau T-Y [2021]. Biomechanical assessment while using production tables on mast climbing work platforms. *Appl Ergon* 90:103276, <https://doi.org/10.1016/j.apergo.2020.103276>.



This diagram shows a mast climber outfitted with production tables.

A mast climber is a piece of elevating equipment with a powered drive unit that moves a work platform up and down a vertical mast structure. Mast climbers have been available since the 1980s. Even so, limited studies have investigated their impact on worker safety and health. To address this gap, in 2021, a study by NIOSH researchers investigated the use of an alternative mast climber equipped with a production table. They aimed to see that if they added a production table to the platform if they could reduce instability and trunk motion for masons when performing bricklaying on mast climbers. The production table would also

remove the need to step down to a lower plank. Stepping down to the lower plank from an elevation can also lead to injuries like falls and musculoskeletal disorders.

The study measured whole body sway and the trunk posture of masons using a traditional setup and compared them to measurements taken when the mast climber was equipped with a production table. The study included two laboratory setups: (1) standing on a mast climbing work platform with a production table and laying bricks, and (2) stepping down onto the step deck to get into position for bricklaying. The researchers found that production

tables improved masons' stability on elevated mast climbers and reduced trunk motion while laying bricks on mast climbers. These two risk factors may lead to falls from elevation and back injuries during bricklaying tasks. The researchers found that the use of the L-shaped production table resulted in less trunk motion and fewer trunk angles when compared to both the straight-shaped production table and the traditional mast climber setup without the production table.

Adding a production tables to a mast climber may increase safety, lead to fewer injuries, and lower the risk of falls.

Occupational Exposure to High-level Disinfectants and Risk of Miscarriage Among Nurses

Ding M, Lawson C, Johnson C, Rich-Edwards J, Gaskins AJ, Boiano J, Henn S, Rocheleau C, Chavarro JE [2021]. Occupational exposure to high-level disinfectants and risk of miscarriage among nurses. *Occup Environ Med* 78(10):731–737, <https://doi.org/10.1136/oemed-2020-107297>.



Photo by Pixsel/Getty Images

Healthcare professionals, including those who are pregnant, may use high-level disinfectants on medical devices.

Healthcare professionals, including those who are pregnant, may use high-level disinfectants on medical devices. Some of the chemicals cleared by the Food and Drug Administration for use in healthcare settings include glutaraldehyde, peracetic acid, hydrogen peroxide, hypochlorous acid and hypochlorite. HLDs are powerful chemicals that can be 100% effective cleaning agents that completely kill all germs on the devices.

Researchers have found that exposure to HLDs can cause short-term health effects. After longer periods of

use they may cause asthma or symptoms that resemble asthma. Little is known about the health effects of HLDs on pregnant healthcare workers who use HLDs. A 2020 study of 2,579 nurses with 3,974 pregnancies found that exposure at work to HLDs may increase the risk of miscarriage. The study included people who had at least one pregnancy during follow-up. When a comparison was made to pregnancies that occurred within 12 months of exposure, researchers found that exposure to HLDs at work was associated with risk of miscarriage.

Getting There First: A Public Health Model for Using Wikipedia to Combat Misinformation

Mietchen D, Rasberry L, Morata T, Sadowski JP, Novakovich J, Heilman JM [2021]. Developing a scalable framework for partnerships between health agencies and the Wikimedia ecosystem. *Res Ideas Outcomes* 7:e68121, <https://doi.org/10.3897/rio.7.e68121>.

In 2020, the world was not only fighting a pandemic, but also battling an “infodemic” of misinformation. An infodemic occurs during a pandemic or epidemic when an abundance of information, both accurate and misleading, spreads rapidly. Competing narratives, claiming opposite truths, make it difficult for people to make sound decisions to look after their health. Infodemics have occurred in the past, but the scale of misinformation during the COVID-19 pandemic made public health agencies aware of the need to find or develop new strategies to manage misinformation and help people locate trustworthy and reliable information and guidance.

The authors of a [study](#) called for researchers to develop new strategies to help public health agencies identify the right timing, tone, and ways to respond to misinformation. They suggest that one such strategy could rely on getting ahead of misinformation, by developing proactive responses that would act like a vaccine against misinformation. Making trustworthy health information easier to locate and understand is a needed first step, so that evidence-based public health practices can be put into use. During infodemics, public health agencies must rapidly translate evidence-based health information for the public.

The study identified Wikipedia as a popular global source of health information with high traffic, in multiple languages with acceptable quality control practices. Wikipedia could be used to get ahead of misinformation. During the Ebola crisis and



Photo by Iryna Imago/Getty Images

Misinformation spreads rapidly online in an infodemic, which makes it difficult for people to find reliable health information.

COVID-19 pandemic large numbers of people on the internet located health guidance through Wikipedia. The study proposed developing an interactive guide on Wikipedia platforms to support health agencies, health professionals and communicators to use Wikipedia to quickly distribute key messages during crisis situations. The guide aims to cover basic features of Wikipedia, including adding key health messages to Wikipedia articles that cite expert sources to make it easier to fact-check information and sources, and translate messaging into multiple languages. Wikipedia also offers automated metrics to measure reach among many other benefits identified in the research article.

Work-related Deaths in Alaska Remain High

Lucas D, Fitzgerald, Case S, O'Connor M, Syron L [2021]. Persistent and emerging hazards contributing to work-related fatalities in Alaska. *Am J Ind Med* 63:693–702, <https://doi.org/10.1002/ajim.23137>.



Photo by SorinVidis/Getty Images

Most of the work-related deaths in the study occurred among commercial fishing workers.

Since the 1980s, improvements in workplace safety have helped decrease the risk of death in the workplace. However, work-related deaths in Alaska remain three times higher than in the rest of the United States.

NIOSH investigators reviewed work-related deaths from 2004 to 2018 recorded in the Alaska Occupational Injury Surveillance System, which tracks workplace deaths and injuries. During the 15 years studied, 517 work-related deaths occurred, according to the research published in the [American Journal of Industrial Medicine](#). Most of the deaths occurred among

white men who worked in the commercial fishing industry. Their average age was 42 years old.

The leading cause of work-related death was water vehicle incidents, which accounted for 28 percent of the total number. At the same time, these deaths dropped from 67 in 2004–2008, to 35 in 2014–2018. Most of the deaths related to water vehicle incidents were from drowning. Aircraft incidents were the second-leading cause, accounting for slightly more than 20 percent of deaths. Most of the workers who died in aircraft incidents were pilots, followed by water transportation workers, and tour and travel guides. The third-leading cause was suicide, which accounted for nearly 9 percent of deaths, and the most common method was firearms. The number of suicides rose from 4 during 2004 to 2008, to 22 during 2014 to 2018.

Emerging risks for work-related death include homicide and unintentional overdoses. The number of homicides increased from 7 during 2004–2008 to 13 during 2014–2018. Most of the work-related homicides happened to law enforcement officers, followed by managers, and motor vehicle operators. Most of the unintentional overdoses occurred among commercial fishing workers. These results can help inform and guide research and prevention efforts to protect Alaskan workers.

Overdose Epidemic is Having Unequal Impacts Across the Workforce

Osborne JC, Chosewood LC [2021]. NIOSH responds to the U.S. drug overdose epidemic. *New Solut* 31(3):307–314, <https://doi.org/10.1177/10482911211040754>.



Photo by SorinVidis/Getty Images

The drug overdose epidemic in the United States is getting worse.

Even though the rate of drug use among workers has remained stable, the danger of overdose and death has not. Increased potency or lethality of illicit drugs has increased the risk of overdose and death. The overdose epidemic is having unequal impacts across industries and occupations. Workers in construction and in the mining, oil, and gas industries have some of the highest rates of opioid overdose deaths. Other work-related factors can lead to opioid misuse, including demanding jobs, job insecurity, and lack of control over job tasks.

The coincidence of the COVID-19 pandemic and opioid epidemic intensified the risk of death and illness among workers with opioid use disorder. This article explored the unique barriers faced by individuals with opioid use disorder that may put them at higher risk for severe illness from COVID-19. Some of these barriers are a lack of health information, existing negative health effects from opioid use, and

the stigma associated with substance use disorders. Furthermore, social distancing and other measures taken to slow the spread of the virus that causes COVID-19 could have negative consequences for individuals with opioid use disorder. These consequences include closed treatment clinics, reductions in medical services, and isolation, which could conceal mental health issues and opioid misuse.

Opioid misuse and overdose impact the worker, the worker's co-workers, staff, family, and community. The article reported that the lines between workplace, home, and community have been blurred in the wake of the COVID-19 pandemic. It contended that a coordinated systems approach is therefore needed to meet the needs of employers and workers.

Employers and organizations can contribute to ending the opioid crisis by providing critical support and recovery resources for workers seeking treatment and recovery from opioid use disorder. NIOSH has

conducted research to inform workplace policies and practices that support prevention efforts. From this research, NIOSH provides resources and toolkits to support workers, employers, and workplaces. This article specifically discussed the resources provided by

NIOSH on administering naloxone to reverse opioid overdose, keeping first responders to an overdose scene safe, and supporting treatment and recovery in the workplace.

Attribution Statement

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Journal Articles

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Alexander BM, Wurzelbacher SJ, Zeiler RJ, Naber SJ [2021]. [Lessons learned from Ohio workers' compensation claims to mitigate hazards in the landscaping services industry.](#) *Am J Ind Med* 64(8):699–713.

NIOSHTIC-2: [20062834](#)

Aljaroudi AM, Bhattacharya A, Yorio P, Strauch AL, Quinn TD, Williams WJ [2021]. [Probability of hyperthermia in a hot environment while wearing a liquid cooling garment underneath firefighters' protective clothing.](#) *J Occup Environ Hyg* 18(4–5):203–211.

NIOSHTIC-2: [20062490](#) | NORA: Public Safety

Anderson JL, Bertke SJ, Yiin J, Kelly-Reif K, Daniels RD [2021]. [Ischaemic heart and cerebrovascular disease mortality in uranium enrichment workers.](#) *Occup Environ Med* 78(2):105–111.

NIOSHTIC-2: [20060864](#) | NORA: Manufacturing

Anderson JL, Zwack LM, Brueck SE [2021]. [Exposure to radon and progeny in a tourist cavern.](#) *Health Phys* 120(6):628–634.

NIOSHTIC-2: [20061929](#) | NORA: Services

Antonini JM, McKinney WG, Lee EG, Afshari AA [2021]. [Review of the physicochemical properties and associated health effects of aerosols generated during thermal spray coating processes.](#) *Toxicol Ind Health* 37(1):47–58.

NIOSHTIC-2: [20061692](#) | NORA: Manufacturing

Arroyave WD, Mehta SS, Guha N, Schwingl P, Taylor KW, Glenn B, Radke EG, Vilahur N, Carreón T, Nachman RM, Lunn RM [2021]. [Challenges and recommendations on the conduct of systematic reviews of observational epidemiologic studies in environmental and occupational health.](#) *J Expo Sci Environ Epidemiol* 31(1):21–30.

NIOSHTIC-2: [20059863](#)

Asfaw A [2021]. [Racial disparity in potential occupational exposure to COVID-19](#). *J Racial Ethn Health Disparities*: Epub ahead of print, 2021 August.

NIOSH TIC-2: 20063689

Asfaw A, Bushnell T, Alterman T, Pana-Cryan R [2021]. [QuickStats: percentage of employed adults who needed to work closer than 6 feet from other persons all or most of the time at their main job, by occupation—National Health Interview Survey, United States, July–December 2020](#). *MMWR* 70(49):1718.

NIOSH TIC-2: 20064133

Asfaw A, Sauter SL, Swanson N, Beach CM, Sauter DL [2021]. [Association of parent workplace injury with emotional and behavioral problems in children](#). *J Occup Environ Med* 63(9):760–770.

NIOSH TIC-2: 20062597

Azofeifa A, Martin GR, Santiago-Colón A, Reissman DB, Howard J [2021]. [World Trade Center Health Program—United States, 2012–2020](#). *MMWR Surveill Summ* 70(4):1–21.

NIOSH TIC-2: 20063461

Azofeifa A, Valencia D, Rodriguez CJ, Cruz M, Hayes D, Montañez-Báez E, Tejada-Vera B, Villafaña-Delgado JE, Cabrera JJ, Valencia-Prado M [2021]. [Estimating and characterizing COVID-19 deaths, Puerto Rico, March–July 2020](#). *Public Health Rep* 136(3):354–360.

NIOSH TIC-2: 20062122

Bahrami D, Zhou L, Yuan L [2021]. [Field verification of an improved mine fire location model](#). *Min Metall Explor* 38(1):559–566.

NIOSH TIC-2: 20061173 | NORA: Mining

Barile JP, Guerin RJ, Fisher KA, Tian LH, Okun AH, Vanden Esschert KL, Jeffers A, Gurbaxani BM, Thompson WW, Prue CE [2021]. [Theory-based behavioral predictors of self-reported use of face coverings in public settings during the COVID-19 pandemic in the United States](#). *Ann Behav Med* 55(1):82–88.

NIOSH TIC-2: 20061638

Barone TL, Dubaniewicz TH, Friend SA, Zlochower IA, Bugarski AD, Rayyan NS [2021]. [Lithium-ion battery explosion aerosols: morphology and elemental composition](#).

Aerosol Sci Tech 55(10):1183–1201.

NIOSH TIC-2: 20063143 | NORA: Mining

Barone TL, Lee T, Cauda EG, Mazzella AL, Stach R, Mizaikoff B [2021]. [Segregation of respirable dust for chemical and toxicological analyses](#). *Arch Environ Occup Health* 76(3):134–144.

NIOSH TIC-2: 20060170 | NORA: Mining

Barrios LC, Riggs MA, Green RF, Czarnik M, Nett RJ, Staples JE, Welton MD, Muilenburg JL, Zullig KJ, Gibson-Young L, Perkins AV, Prins C, Lauzardo M, Shapiro J, Asimellis G, Kilgore-Bowling G, Ortiz-Jurado K, Gutilla MJ [2021]. [Observed face mask use at six universities—United States, September–November 2020](#). *MMWR* 70(6):208–211.

NIOSH TIC-2: 20061998

Basham C, Cerles A, Rush M, Alexander-Scott M, Greenawald L, Chiu S, Broadwater K, Hirst D, Snawder J, Roberts J, Weber A, Knuth M, Casagrande R [2021]. [Occupational safety and health and illicit opioids: state of the research on protecting against the threat of occupational exposure](#). *New Solut* 31(3):315–329.

NIOSH TIC-2: 20063364 | NORA: Construction / Services

Bauerle TJ, Sammarco JJ, Dugdale ZJ, Dawson D [2021]. [The human factors of mineworker fatigue: an overview on prevalence, mitigation, and what's next](#). *Am J Ind Med*: Epub ahead of print, 2021 November.

NIOSH TIC-2: 20063883 | NORA: Mining

Baur R, Gandhi J, Marshall NB, Lukomska E, Weatherly LM, Shane HL, Hu G, Anderson SE [2021]. [Dermal exposure to the immunomodulatory antimicrobial chemical triclosan alters the skin barrier integrity and microbiome in mice](#). *Toxicol Sci* 184(2):223–235.

NIOSH TIC-2: 20064257 | NORA: Healthcare and Social Assistance / Oil and Gas Extraction

Bellanca JL, Ryan ME, Orr TJ, Burgess-Limerick RJ [2021]. [Why do haul truck fatal accidents keep occurring?](#) *Min Metall Explor* 38(2):1019–1029.

NIOSH TIC-2: 20062184 | NORA: Mining

Bertke SJ, Keil A, Daniels RD [2021]. [Lung cancer mortality and styrene exposure in the reinforced-plastics boatbuilding industry: evaluation of healthy worker survivor bias](#). *Am J Epidemiol* 190(9):1784–1792.

NIOSH TIC-2: 20062562

Bessesen MT, Rattigan S, Frederick J, Cummings DAT, Gaydos CA, Gibert CL, Gorse GJ, Nyquist A-C, Price CS, Reich NG, Simberkoff MS, Brown AC, Radonovich LJ Jr., Perl TM, Rodriguez-Barradas MC [2021]. [Outpatient healthcare personnel knowledge and attitudes towards infection prevention measures for protection from respiratory infections](#). *Am J Infect Control* 49(11):1369–1375.

NIOSH TIC-2: 20063091

Bhattacharya A, Ray T [2021]. [Precarious work, job stress, and health-related quality of life](#). *Am J Ind Med* 64(4):310–319.

NIOSH TIC-2: 20062005

Billock RM, Groenewold MR, Free H, Haring Sweeney M, Luckhaupt SE [2021]. Required and voluntary occupational use of hazard controls for COVID-19 prevention in non-health care workplaces—United States, June 2020. *MMWR* 70(7):250–253.

NIOSH TIC-2: 20062083

Blando JD, Ridenour ML, Hartley D [2021]. Survey: workplace violence prevention programs in nursing homes. *J Healthc Prot Manage* 37(1):100–113.

NIOSH TIC-2: 20062151

Boal WL, Li J, Silver SR [2021]. Health care access among essential critical infrastructure workers, 31 states, 2017–2018. *Public Health Rep: Epub ahead of print*, 2021 March.

NIOSH TIC-2: 20062335

Bobick TG, McKenzie EA Jr., Powers JR Jr. [2021]. Slide guard effectiveness on steep-sloped roofs. *Prof Saf* 66(2):28–33.

NIOSH TIC-2: 20062657

Bonwitt J, Deya RW, Currie DW, Lipton B, Huntington-Frazier M, Sanford SJ, Pallickaparambil AJ, Hood J, Rao AK, Kelly-Reif K, Luckhaupt SE, Pogojans S, Lindquist S, Duchin J, Kawakami V, Public Health—Seattle & King County COVID-19 Community Investigation Team, Public Health—Seattle & King County Analytics and Informatics Team [2021]. COVID-19 surveillance and investigations in workplaces—Seattle & King County, Washington, June 15–November 15, 2020. *MMWR* 70(25):916–921.

NIOSH TIC-2: 20062955

Boots TE, Kogel AM, Drew NM, Kuempel ED [2021]. Utilizing literature-based rodent toxicology data to derive potency estimates for quantitative risk assessment.

Nanotoxicology 15(6):740–760.

NIOSH TIC-2: 20062935 | NORA: Public Safety / Manufacturing

Brennan AC, Breloff SP [2021]. Natural prioritization tendencies during texting while walking. *J Musculoskelet Res* 24(3):2150010.

NIOSH TIC-2: 20063174 | NORA: Construction

Brooks JT, Beezhold DH, Noti JD, Coyle JP, Derk RC, Blachere FM, Lindsley WG [2021]. Maximizing fit for cloth and medical procedure masks to improve performance and reduce SARS-COV-2 transmission and exposure, 2021. *MMWR* 70(7):254–257.

NIOSH TIC-2: 20062030

Brown CM, Vostok J, Johnson H, Burns M, Gharpure R, Sami S, Sabo RT, Hall N, Foreman A, Schubert PL, Gallagher GR, Fink T, Madoff LC, Gabriel SB, MacInnis B, Park DJ, Siddle KJ, Harik V, Arvidson D, Brock-Fisher T, Dunn M, Kearns A, Laney AS [2021]. [Outbreak of SARS-CoV-2 infections, including COVID-19 vaccine breakthrough infections, associated with large public gatherings—Barnstable County, Massachusetts, July 2021](#). *MMWR* 70(31):1059–1062.

NIOSH TIC-2: 20063187

Bryant-Genevier J, Rao CY, Lopes-Cardozo B, Kone A, Rose C, Thomas I, Orquiola D, Lynfield R, Shah D, Freeman L, Becker S, Williams A, Gould DW, Tiesman H, Lloyd G, Hill L, Byrkit R [2021]. [Symptoms of depression, anxiety, post-traumatic stress disorder, and suicidal ideation among state, tribal, local, and territorial public health workers during the COVID-19 pandemic—United States, March–April 2021 \(Correction\)](#). *MMWR* 70(26):947–952

NIOSH TIC-2: 20062968

Bryant-Genevier J, Rao CY, Lopes-Cardozo B, Kone A, Rose C, Thomas I, Orquiola D, Lynfield R, Shah D, Freeman L, Becker S, Williams A, Gould DW, Tiesman H, Lloyd G, Hill L, Byrkit R [2021]. [Symptoms of depression, anxiety, post-traumatic stress disorder, and suicidal ideation among state, tribal, local, and territorial public health workers during the COVID-19 pandemic—United States, March–April 2021](#). *MMWR* 70(48):1680–1685.

NIOSH TIC-2: 20064089

Busey A, Asfaw A, Applebaum KM, O’Leary PK, Tripodis Y, Fox MP, Stokes AC, Boden LI [2021]. [Mortality following workplace injury: quantitative bias analysis](#). *Ann Epidemiol* 64:155–160.

NIOSH TIC-2: 20063691

Calitz C, Pratt C, Pronk NP, Fulton JE, Jinnett K, Thorndike AN, Addou E, Arena R, Brown AGM, Chang C-C, Latts L, Lerner D, Majors M, Mancuso M, Mills D, Sanchez E, Goff D [2021]. [Cardiovascular health research in the workplace: a workshop report](#). *J Am Heart Assoc* 10(17):e019016.

NIOSH TIC-2: 20063497

Camara M, Rishi K, Beaucage G, Sukumaran SK [2021]. [A scattering function for correlated lamellae](#). *Polymer* 237:124281.

NIOSH TIC-2: 20063985 | NORA: Construction / Manufacturing

Cao X, Coyle JP, Xiong R, Wang Y, Heflich RH, Ren B, Gwinn WM, Hayden P, Rojanasakul L [2021]. [Invited review: human air-liquid-interface organotypic airway tissue models derived from primary tracheobronchial epithelial cells—overview and perspectives](#). *In Vitro Cell Dev Biol Anim* 57(2):104–132.

NIOSH TIC-2: 20061501 | NORA: Manufacturing

Carrera Arias FJ, Aenlle K, Abreu M, Holschbach MA, Michalovicz LT, Kelly KA, Klimas N, O’Callaghan JP, Craddock TJA [2021]. [Modeling neuroimmune interactions in human subjects and animal models to predict subtype-specific multidrug treatments for Gulf War Illness](#). *Int J Mol Sci* 22(16):8546.

NIOSH TIC-2: 20063318

Ceballos DM, Fellows KM, Evans AE, Janulewicz PA, Lee EG, Whittaker SG [2021]. [Perchloroethylene and dry cleaning: it’s time to move the industry to safer alternatives](#). *Front Public Health* 9:638082.

NIOSH TIC-2: 20062189

Ceballos DM, Herrick RF, Carreón T, Nguyen VT, Chu MT, Sadowski JP, Blumenthal H, Morata TC [2021]. [Expanding reach of occupational health knowledge: contributing subject-matter expertise to Wikipedia as a class assignment](#). *Inquiry* 58:1–11.

NIOSH TIC-2: 20063825 | NORA: Construction / Manufacturing

Celestina M, Kardous CA, Trost A [2021]. [Smartphone-based sound level measurement apps: evaluation of directional response](#). *Appl Acoust* 171:107673.

NIOSH TIC-2: 20061179

Chambers DJA, Boltz MS, Chamberlain CJ [2021]. [ObsPlus: a pandas-centric ObsPy expansion pack](#). *J Open Source Softw* 6(60):02696.

NIOSH TIC-2: 20062933

Chea N, Eure T, Penna AR, Brown CJ, Nadle J, Godine D, Frank L, Czaja CA, Johnston H, Barter D, Miller BF, Angell K, Marshall K, Meek J, Brackney M, Carswell S, Thomas S, Wilson LE, Perlmutter R, Marceaux-Galli K, Fell A, Lim S, Lynfield R, Davis SS, Phipps EC, Sievers M, Dumyati G, Concannon C, McCullough K, Woods A, Seshadri S, Myers C, Pierce R, Ocampo VLS, Guzman-Cottrill JA, Escutia G, Samper M, Pena SA, Adre C, Groenewold M, Thompson ND, Magill SS [2021]. [Practices and activities among healthcare personnel with severe acute respiratory coronavirus virus 2 \(SARS-CoV-2\) infection working in different healthcare settings—ten Emerging Infections Program sites, April–November 2020](#). *Infect Control Hosp Epidemiol*: Epub ahead of print, 2021 June.

NIOSH TIC-2: 20062921

Chen GX, Sieber WK, Collins JW, Hitchcock EM, Lincoln JE, Pratt SG, Sweeney MH [2021]. [Truck driver reported unrealistically tight delivery schedules linked to their opinions of maximum speed limits and hours-of-service rules and their compliance with these safety laws and regulations](#). *Saf Sci* 133:105003.

NIOSH TIC-2: 20061094 | NORA: Transportation, Warehousing and Utilities

Chen H, Jog MA, Evans DE, Turkevich LA [2021]. [Numerical investigation of powder aerosolization in a rotating drum apparatus](#). *Powder Technol* 390:62–72.

NIOSH TIC-2: 20062892 | NORA: Construction / Manufacturing

Chen IC, Bertke SJ, Curwin BD [2021]. [Quantile regression for exposure data with repeated measures in the presence of non-detects](#). *J Expo Sci Environ Epidemiol* 31(6):1057–1066.

NIOSH TIC-2: 20062936

Chen IC, Westgate PM [2021]. [Marginal quantile regression for longitudinal data analysis in the presence of time-dependent covariates](#). *Int J Biostat* 17(2):267–282.

NIOSH TIC-2: 20061286

Chen Y, Chen C, Zheng C, Dwaraknath S, Horton MK, Cabana J, Rehr J, Vinson J, Dozier A, Kas JJ, Persson KA, Ong SP [2021]. [Database of ab initio L-edge X-ray absorption near edge structure](#). *Sci Data* 8:153.

NIOSH TIC-2: 20062972

Chipinda I, Anderson SE, Siegel PD [2021]. [Laboratory techniques for identifying causes of allergic dermatitis](#). *Immunol Allergy Clin North Am* 41(3):423–438.

NIOSH TIC-2: 20062994

Choi H-S, Crump C, Duriez C, Elmquist A, Hager G, Han D, Hearl F, Hodgins J, Jain A, Leve F, Li C, Meier F, Negrut D, Righetti L, Rodriguez A, Tan J, Trinkle J [2021]. [On the use of simulation in robotics: opportunities, challenges, and suggestions for moving forward](#). *Proc Natl Acad Sci USA* 118(1):e1907856118.

NIOSH TIC-2: 20061786

Chubb LG, Cauda EG [2021]. [A novel sampling cassette for field-based analysis of respirable crystalline silica](#). *J Occup Environ Hyg* 18(3):103–109.

NIOSH TIC-2: 20061930 | NORA: Mining

Cicek S, Tulu IB, Van Dyke M, Klemetti T, Wickline J [2021]. [Application of the coal mine floor rating \(CMFR\) to assess the floor stability in a Central Appalachian coal mine](#). *Int J Min Sci Technol* 31(1):83–89.

NIOSH TIC-2: 20061765 | NORA: Mining

Ciesielski AL, Wagner JR, Alexander-Scott M, Smith J, Snawder J [2021]. [Surface contamination generated by “one-pot” methamphetamine production](#). *J Chem Health Saf* 28(1):49–54.

NIOSH TIC-2: 20061809

Ciesielski AL, Wagner JR, Alexander-Scott M, Snawder J [2021]. [An optimized method for sample collection, extraction, and analysis of fentanyl and fentanyl analogs from a non-porous surface](#). *Talanta* 228:122210.

NIOSH TIC-2: 20062183

Coffey CC, Miller C, Szalajda J [2021]. [The history of the evaluation of particulate respirator fitting characteristics in the U.S. approval requirements](#). *J Occup Environ Hyg* 18(10–11):481–488.

NIOSH TIC-2: 20063638 | NORA: Public Safety

Cornish NE, Anderson NL, Arambula DG, Arduino MJ, Bryan A, Burton NC, Chen B, Dickson BA, Giri JG, Griffith NK, Pentella MA, Salerno RM, Sandhu P, Snyder JW, Tormey CA, Wagar EA, Weirich EG, Campbell S [2021]. [Clinical laboratory biosafety gaps: lessons learned from past outbreaks reveal a path to a safer future](#). *Clin Microbiol Rev* 34(3):e0012618.

NIOSH TIC-2: 20062979 | NORA: Services

Cox-Ganser JM, Henneberger PK [2021]. [Occupations by proximity and indoor/outdoor work: relevance to COVID-19 in all workers and Black/Hispanic workers](#). *Am J Prev Med* 60(5):621–628.

NIOSH TIC-2: 20062242

Coyle JP, Derk RC, Lindsley WG, Blachere FM, Boots T, Lemons AR, Martin SB Jr., Mead KR, Fotta SA, Reynolds JS, McKinney WG, Sinsel EW, Beezhold DH, Noti JD [2021]. [Efficacy of ventilation, HEPA air cleaners, universal masking, and physical distancing for reducing exposure to simulated exhaled aerosols in a meeting room](#). *Viruses* 13(12):2536.

NIOSH TIC-2: 20064315

Cummings DAT, Radonovich LJ Jr., Gorse GJ, Gaydos CA, Bessesen MT, Brown AC, Gibert CL, Hitchings MDT, Lessler J, Nyquist A-C, Rattigan SM, Rodriguez-Barradas MC, Price CS, Reich NG, Simberkoff MS, Perl TM [2021]. [Risk factors for healthcare personnel infection with endemic coronaviruses \(HKU1, OC43, NL63, 229E\): results from the Respiratory Protection Effectiveness Clinical Trial \(ResPECT\)](#). *Clin Infect Dis* 73(11):e4428–e4432.

NIOSH TIC-2: 20064374

Cunningham T, Jacklitsch B, Richards R [2021]. [Intermediary perspectives on total worker health in small businesses](#). *Int J Environ Res Public Health* 18(19):10398.

NIOSH TIC-2: 20063752

Daniels RD, Clouston SAP, Hall CB, Anderson KR, Bennett DA, Bromet EJ, Calvert GM, Carreón T, DeKosky ST, Diminich ED, Finch CE, Gandy S, Kreisl WC, Kritikos M, Kubale TL, Mielke MM, Peskind ER, Raskind MA, Richards M, Sano M, Santiago-Colón A, Sloan RP, Spiro A III, Vasdev N, Luft BJ, Reissman DB [2021]. [A workshop on cognitive aging and impairment in the 9/11-exposed population](#). *Int J Environ Res Public Health* 18(2):681.

NIOSH TIC-2: 20061924

- Davis J, Casteel C, Menéndez CC [2021]. [Impact of a crime prevention ordinance for small retail establishments](#). *Am J Ind Med* 64(6):488–495.
NIOSH TIC-2: 20062247
- Dawson P, Schrodtt CA, Feldmann K, Traxler RM, Gee JE, Kolton CB, Marston CK, Gulvik CA, Antonini JM, Negrón ME, McQuiston JR, Hendricks K, Weiner Z, Balsamo GA, Sokol T, Byers P, Taylor K, Zaheer S, Long S, O’Sullivan B, de Perio MA, Hoffmaster AR, Salzer JS, Bower WA [2021]. [Notes from the field: fatal anthrax pneumonia in welders and other metalworkers caused by *Bacillus cereus* group bacteria containing anthrax toxin genes—U.S. Gulf Coast States, 1994–2020](#). *MMWR* 70(41):1453–1454.
NIOSH TIC-2: 20063732 | NORA: Manufacturing
- de Perio MA, Benedict K, Williams SL, Niemeier-Walsh C, Green BJ, Coffey C, Di Giuseppe M, Toda M, Park J-H, Bailey RL, Nett RJ [2021]. [Occupational histoplasmosis: epidemiology and prevention measures](#). *J Fungi* 7(7):510.
NIOSH TIC-2: 20063102 | NORA: Services
- Dietrich WL, Bennett JS, Jones BW, Hosni MH [2021]. [Laboratory modeling of SARS-CoV-2 exposure reduction through physically distanced seating in aircraft cabins using bacteriophage aerosol—November 2020](#). *MMWR* 70(16):595–599.
NIOSH TIC-2: 20062444 | NORA: Transportation, Warehousing and Utilities
- Ding M, Lawson C, Johnson C, Rich-Edwards J, Gaskins AJ, Boiano J, Henn S, Rocheleau C, Chavarro JE [2021]. [Occupational exposure to high-level disinfectants and risk of miscarriage among nurses](#). *Occup Environ Med* 78(10):731–737.
NIOSH TIC-2: 20062783 | NORA: Healthcare and Social Assistance
- Doepke A, Stastny AL, Streicher RP [2021]. [Controlled generation of peracetic acid atmospheres for the evaluation of chemical samplers](#). *Anal Methods* 13(34):3799–3805.
NIOSH TIC-2: 20063331
- Doepke A, Streicher RP [2021]. [Source apportionment and quantification of liquid and headspace leaks from closed system transfer devices via selected ion flow tube mass spectrometry \(SIFT-MS\)](#). *PLoS One* 16(11):e0258425.
NIOSH TIC-2: 20063986
- Doney B, Kurth L, Syamlal G [2021]. [Chronic bronchitis and emphysema among workers exposed to dust, vapors, or fumes by industry and occupation](#). *Arch Environ Occup Health*: Epub ahead of print, 2021 July.
NIOSH TIC-2: 20063144
- Dong RG, Wu JZ, Dai F, Breloff SP [2021]. [An alternative method for analyzing the slip potential of workers on sloped surfaces](#). *Saf Sci* 133:105026.
NIOSH TIC-2: 20061258 | NORA: Construction

Dong RG, Wu JZ, Xu XS, Welcome DE, Krajnak K [2021]. [A review of hand-arm vibration studies conducted by U.S. NIOSH since 2000](#). *Vibration* 4(2):482–528.
NIOSHTIC-2: 20063452 | NORA: Construction / Manufacturing

Doza S, Bovbjerg VE, Vaughan A, Nahorniak JS, Case S, Kincl LD [2021]. [Health-related exposures and conditions among U.S. fishermen](#). *J Agromed*: Epub ahead of print, 2021 July.
NIOSHTIC-2: 20063118 | NORA: Agriculture, Forestry and Fishing

Dubaniewicz TH, Zlochower I, Barone T, Thomas R, Yuan L [2021]. [Thermal runaway pressures of iron phosphate lithium-ion cells as a function of free space within sealed enclosures](#). *Min Metall Explor* 38(1):539–547.
NIOSHTIC-2: 20061500 | NORA: Mining

Dugan AG, Laguerre RA, Barnes-Farrell JL, Cavallari JM, Garza JL, Graham LA, Petery GA, Warren N, Cherniack MG [2021]. [Musculoskeletal health and perceived work ability in a manufacturing workforce](#). *Occup Health Sci*: Epub ahead of print, 2021 November.
NIOSHTIC-2: 20064363

Dumas O, Gaskins AJ, Boggs KM, Henn SA, Le Moual N, Varraso R, Chavarro JE, Carmago CA Jr. [2021]. [Occupational use of high-level disinfectants and asthma incidence in early- to mid-career female nurses: a prospective cohort study](#). *Occup Environ Med* 78(4):244–247.
NIOSHTIC-2: 20061872 | NORA: Services / Transportation, Warehousing and Utilities

Dutta A, Breloff SP, Dai F, Sinsel EW, Warren CM, Carey RE, Wu JZ [2021]. [Application of data fusion via canonical polyadic decomposition in risk assessment of musculoskeletal disorders in construction: procedure and stability evaluation](#). *J Constr Eng Manage* 147(8):04021083.
NIOSHTIC-2: 20062893 | NORA: Construction

Erekaife G, Park HD, Kashon ML, Chisholm WP, Lee EG [2021]. [Investigation of particle transfer to sampler covers during the transportation of samples](#). *J Occup Environ Hyg* 18(7):295–304.
NIOSHTIC-2: 20062996 | NORA: Construction / Manufacturing

Escartin C, Galea E, Lakatos A, O'Callaghan JP, Petzold GC, Serrano-Pozo A, Steinhäuser C, Volterra A, Carmignoto G, Agarwal A, Allen NJ, Araque A, Barbeito L, Barzilai A, Bergles DE, Bonvento G, Butt AM, Chen W-T, Cohen-Salmon M, Cunningham C, Deneen B, De Strooper B, Díaz-Castro B, Farina C, Freeman M, Gallo V, Goldman JE, Goldman SA, Götz M, Gutiérrez A, Haydon PG, Heiland DH, Hol EM, Holt MG, Iino M, Kastanenka KV, Kettenmann H, Khakh BS, Koizumi S, Lee CJ, Liddel SA, MacVicar BA, Magistretti P, Messing A, Mishra A, Molofsky AV, Murai KK, Norris CM, Okada S, Olier SHR, Oliveira JF, Panatier A, Parpura V, Pekna M, Pekny M, Pellerin L, Perea G, Pérez-Nievas BG, Pfrieder FW, Poskanzer KE, Quintana FJ, Ransohoff RM, Riquelme-Perez M, Robel S, Rose CR, Rothstein JD, Rouach N, Rowitch DH, Semyanov A, Sirko S, Sontheimer H, Swanson RA, Vitorica J, Wanner I-B, Wood LB, Wu J, Zheng B, Zimmer ER, Zorec R, Sofroniew MV, Verkhratsky A [2021]. [Reactive astrocyte nomenclature, definitions, and future directions](#). *Nat Neurosci* 24(3):312–325.

NIOSH TIC-2: 20062125

Esterhuizen GS, Klemetti T, Sears MM, Zhang P, van Dyke M, Dougherty H, Tulu IB [2021]. [Assessing longwall gateroad ground response and support alternatives](#). *Min Metall Explor* 38(4):1739–1759.

NIOSH TIC-2: 20062797

Esterhuizen GS, Tulu IB, Gearhart DF, Dougherty H, Van Dyke M [2021]. [Assessing support alternatives for longwall gateroads subject to changing stress](#). *Int J Min Sci Technol* 31(1):103–110.

NIOSH TIC-2: 20061764

Estill CF, Mayer A, Slone J, Chen I-C, Zhou M, La Guardia MJ, Jayatilaka N, Ospina M, Calafat AM [2021]. [Assessment of triphenyl phosphate \(TPhP\) exposure to nail salon workers by air, hand wipe, and urine analysis](#). *Int J Hyg Environ Health* 231:113630.

NIOSH TIC-2: 20061228

Evanek N, Iannacchione A, Miller T [2021]. [Controlling crosscut damage in response to excessive levels of horizontal stress: case study at the Subtropolis Mine, Petersburg, OH](#). *Min Metall Explor* 38(1):645–653.

NIOSH TIC-2: 20061850 | NORA: Mining

Evanek N, Slaker B, Iannacchione A, Miller T [2021]. [LiDAR mapping of ground damage in a heading re-orientation case study](#). *Int J Min Sci Technol* 31(1):67–74.

NIOSH TIC-2: 20061861 | NORA: Mining

Evoy R, Case S [2021]. [Prevalence of adverse health behaviors and conditions among maritime workers, BRFSS 2014–2018, 38 states](#). *J Occup Environ Med*: Epub ahead of print, 2021 November.

NIOSH TIC-2: 20063961

Fan JK, Sim M, Lilley R, Wong IS, Smith PM [2021]. [Sleep disturbances and disability following work-related injury and illness: examining longitudinal relationships across three follow-up waves](#). *J Sleep Res* 30(3):e13124.

NIOSHTIC-2: 20060271 | NORA: Oil and Gas Extraction / Transportation, Warehousing and Utilities

Fanti G, Borghi F, Spinazzè A, Rovelli S, Campagnolo D, Keller M, Cattaneo A, Cauda E, Cavallo DM [2021]. [Features and practicability of the next-generation sensors and monitors for exposure assessment to airborne pollutants: a systematic review](#). *Sensors* 21(13):4513.

NIOSHTIC-2: 20063030

Felknor SA, Streit JMK, McDaniel M, Schulte PA, Chosewood LC, Delclos GL, Workshop Presenters and Participants [2021]. [How will the future of work shape OSH research and practice? A workshop summary](#). *Int J Environ Res Public Health* 18(11):5696.

NIOSHTIC-2: 20063038

Fischer FM, Martinez MC, Alfredo CH, Silva-Junior JS, Oakman J, Cotrim T, Fisher D, Popkin S, Petery GA, Schulte PA [2021]. [Aging and the future of decent work](#). *Int J Environ Res Public Health* 18(17):8898.

NIOSHTIC-2: 20063437

Fisher EM, Kuhlman MR, Choi YW, Jordan TL, Sunderman M [2021]. [Persistence of SARS-Co-V-2 on N95 filtering facepiece respirators: implications for reuse](#). *J Occup Environ Hyg* 18(12):570–578.

NIOSHTIC-2: 20063716

Flynn MA, Eggerth DE, Jacobson CJ Jr., Lyon SM [2021]. [Heart attacks, bloody noses, and other “emotional problems”: cultural and conceptual issues with the Spanish translation of self-report emotional health items](#). *Fam Commun Health* 44(1):1–9.

NIOSHTIC-2: 20060846

Flynn MA, Eggerth DE, Keller BM, Check P [2021]. [Reaching “hard to reach” workers: evaluating approaches to disseminate worker safety information via the Mexican consular network](#). *J Occup Environ Hyg* 18(4–5):180–191.

NIOSHTIC-2: 20062523 | NORA: Construction / Services

Flynn MA, Rodriguez Lainz A, Lara J, Rosales C, Feldstein F, Dominguez K, Wolkin A, Sierra Medal IR, Tonda J, Romero-Steiner S, Dicient-Taillepierre J, Rangel Gómez MG [2021]. [An innovative United States–Mexico community outreach initiative for Hispanic and Latino people in the United States: a collaborative public health network](#). *Public Health Rep* 136(3):287–294.

NIOSHTIC-2: 20062022 | NORA: Healthcare and Social Assistance / Services

- Foreman AM, Friedel JE, Hayashi Y, Wirth O [2021]. [Texting while driving: a discrete choice experiment](#). *Accid Anal Prev* 149:105823.
NIOSHTIC-2: 20062135
- Fox MA, Niemeier RT, Hudson N, Siegel MR, Dotson GS [2021]. [Cumulative risks from stressor exposures and personal risk factors in the workplace: examples from a scoping review](#). *Int J Environ Res Public Health* 18(11):5850.
NIOSHTIC-2: 20062813
- Fraser K, Hubbs A, Yanamala N, Mercer RR, Stueckle TA, Jensen J, Eye T, Battelli L, Clingerman S, Fluharty K, Dodd T, Casuccio G, Bunker K, Lersch TL, Kashon ML, Orandle M, Dahm M, Schubauer-Berigan MK, Kodali V, Erdely A [2021]. [Histopathology of the broad class of carbon nanotubes and nanofibers used or produced in U.S. facilities in a murine model. Part I](#). *Fibre Toxicol* 18:47.
NIOSHTIC-2: 20064252 | NORA: Manufacturing
- Fujishiro K, Ahonen EQ, Gimeno Ruiz de Porras D, Chen I-C, Benavides FG [2021]. [Sociopolitical values and social institutions: studying work and health equity through the lens of political economy](#). *SSM Popul Health* 14:100787.
NIOSHTIC-2: 20062488
- Fujishiro K, Ahonen EQ, Winkler M [2021]. [Poor-quality employment and health: how a welfare regime typology with a gender lens illuminates a different work-health relationship for men and women](#). *Soc Sci Med* 291:114484.
NIOSHTIC-2: 20063937
- Galinsky T, Deter L, Krieg E, Feng HA, Battaglia C, Bell R, Haddock KS, Hilton T, Lynch C, Matz M, Moscatel S, Riley FD, Sampsel D, Shaw S [2021]. [Safe patient handling and mobility \(SPHM\) for increasingly bariatric patient populations: factors related to caregivers' self-reported pain and injury](#). *Appl Ergon* 91:103300.
NIOSHTIC-2: 20061535
- Gee J, Marquez P, Su J, Calvert GM, Liu R, Myers T, Nair N, Martin S, Clark T, Markowitz L, Lindsey N, Zhang B, Licata C, Jazwa A, Sotir M, Shimabukuro T [2021]. [First month of COVID-19 vaccine safety monitoring—United States, December 14, 2020–January 13, 2021](#). *MMWR* 70(8):283–288.
NIOSHTIC-2: 20062090
- Goldberg M, Ciesielski Jones AJ, McGrath JA, Barker-Cummings C, Cousins DS, Kipling LM, Meadows JW, Kesner JS, Marcus M, Monteilh C, Sandler DP [2021]. [Urinary and salivary endocrine measurements to complement Tanner staging in studies of pubertal development](#). *PLoS One* 16(5):e0251598.
NIOSHTIC-2: 20062755

Golden AP, Milder CM, Ellis ED, Anderson JL, Boice JD Jr., Bertke SJ, Zablotska LB [2021]. [Cohort profile: four early uranium processing facilities in the U.S. and Canada.](#) *Int J Radiat Biol* 97(6):833–847.

NIOSH TIC-2: 20062832 | NORA: Manufacturing

Gong W, Zhao L, Li L, Morata TC, Qiu W, Feng HA, Zhu B [2021]. [Evaluating the effectiveness of earplugs in preventing noise-induced hearing loss in an auto parts factory in China.](#) *Int J Environ Res Public Health* 18(13):7190.

NIOSH TIC-2: 20063055 | NORA: Construction / Manufacturing

Goodrich JM, Calkins MM, Caban-Martinez AJ, Stueckle T, Grant C, Calafat AM, Nematollahi A, Jung AM, Graber JM, Jenkins T, Slitt AL, Dewald A, Cook Botelho J, Beitel S, Littau S, Gulotta J, Wallentine D, Hughes J, Popp C, Burgess JL [2021]. [Per- and polyfluoroalkyl substances, epigenetic age and DNA methylation: a cross-sectional study of firefighters.](#) *Epigenomics* 13(20):1619–1636.

NIOSH TIC-2: 20063949

Goodrich JM, Furlong MA, Caban-Martinez AJ, Jung AM, Batai K, Jenkins T, Beitel S, Littau S, Gulotta J, Wallentine D, Hughes J, Popp C, Calkins MM, Burgess JL [2021]. [Differential DNA methylation by Hispanic ethnicity among firefighters in the United States.](#) *Epigenet Insights* 14:1–10.

NIOSH TIC-2: 20062391

Gorse GJ, Rattigan SM, Kirpich A, Simberkoff MS, Bessesen MT, Gibert C, Nyquist A-C, Price CS, Gaydos CA, Radonovich LJ, Perl TM, Rodriguez-Barradas MC, Cummings DAT [2021]. [Influence of pre-season antibodies against influenza virus on risk of influenza infection among health care personnel.](#) *J Infect Dis*: Epub ahead of print, 2021 September.

NIOSH TIC-2: 20063523

Green DR, Masterson EA, Themann CL [2021]. [Prevalence of hearing protection device non-use among noise-exposed U.S. workers in 2007 and 2014.](#) *Am J Ind Med* 64(12):1002–1017.

NIOSH TIC-2: 20063699

Greenawald LA, Haas EJ, D'Alessandro MM [2021]. [Elastomeric half mask respirators: an alternative to disposable respirators and a solution to shortages during public health emergencies.](#) *J Int Soc Respir Prot* 38(2):74–91.

NIOSH TIC-2: 20064550

Greenawald LA, Moore SM, Wizner K, Yorio PL [2021]. [Developing a methodology to collect empirical data that informs policy and practices for stockpiling personal protective equipment.](#) *Am J Infect Control* 49(2):166–173.

NIOSH TIC-2: 20060453 | NORA: Healthcare and Social Assistance / Public Safety

- Gu JK, Charles LE, Fekedulegn D, Allison P, Ma CC, Violanti JM, Andrew ME [2021]. Temporal trends in prevalence of cardiovascular disease (CVD) and CVD risk factors among U.S. older workers: NHIS 2004–2018. *Ann Epidemiol* 55:78–82.
NIOSHTIC-2: 20061321 | NORA: Public Safety
- Guerin RJ, Barile JP, Thompson WW, McKnight-Eily L, Okun AH [2021]. Investigating the impact of job loss and decreased work hours on physical and mental health outcomes among U.S. adults during the COVID-19 pandemic. *J Occup Environ Med* 63(9):e571–e579.
NIOSHTIC-2: 20062847 | NORA: Services / Wholesale and Retail Trade
- Guerin RJ, Harden SM, Rabin BA, Rohlman DS, Cunningham TR, TePoel MR, Parish M, Glasgow RE [2021]. Dissemination and implementation science approaches for occupational safety and health research: implications for advancing total worker health. *Int J Environ Res Public Health* 18(21):11050.
NIOSHTIC-2: 20063903
- Guerin RJ, Sleet DA [2021]. Using behavioral theory to enhance occupational safety and health: applications to health care workers. *Am J Lifestyle Med* 15(3):269–278.
NIOSHTIC-2: 20058495
- Haas EJ, Casey ML, Furek A, Aldrich K, Ragsdale T, Crosswy S, Moore SM [2021]. Lessons learned from the development and demonstration of a PPE inventory monitoring system for U.S. hospitals. *Health Secur* 19(6):582–591.
NIOSHTIC-2: 20064052 | NORA: Public Safety
- Haas EJ, Furek A, Casey M, Yoon KN, Moore SM [2021]. Applying the social vulnerability index as a leading indicator to protect fire-based emergency medical service responders' health. *Int J Environ Res Public Health* 18(15):8049.
NIOSHTIC-2: 20063235 | NORA: Public Safety
- Haas EJ, Greenawald LA, Furek A, D'Alessandro MM [2021]. Using public feedback about the use of elastomeric half mask respirators to inform a national deployment study within health settings. *J Int Soc Respir Prot* 38(2):92–106.
NIOSHTIC-2: 20064358
- Haas EJ, Yorio PL [2021]. Exploring the differences in safety climate among mining sectors. *Min Metall Explor* 38(1):655–668.
NIOSHTIC-2: 20061851
- Haas EJ, Yorio PL [2021]. Behavioral safety compliance in an interdependent mining environment: supervisor communication, procedural justice, and the mediating role of coworker communication. *Int J Occup Saf Ergon*: Epub ahead of print, 2021 February.
NIOSHTIC-2: 20062234

Hagan-Haynes K, Pratt S, Lerman S, Wong I, Baker A, Flower D, Riethmeister V [2021]. [U.S. research needs related to fatigue, sleep, and working hours among oil and gas extraction workers](#). *Am J Ind Med*: Epub ahead of print, 2021 November.

NIOSH TIC-2: 20063984 | NORA: Oil and Gas Extraction / Transportation, Warehousing and Utilities

Halappanavar S, Ede JD, Mahapatra I, Krug HF, Kuempel ED, Lynch I, Vandebriel RJ, Shatkin JA [2021]. [A methodology for developing key events to advance nanomaterial-relevant adverse outcome pathways to inform risk assessment](#). *Nanotoxicology* 15(3):289–310.

NIOSH TIC-2: 20061695 | NORA: Manufacturing

Harvey RR, Blackley BH, Korbach EJ, Rawal AX, Roggli VL, Bailey RL, Cox-Ganser JM, Cummings KJ [2021]. [Case report: flavoring-related lung disease in a coffee roasting and packaging facility worker with unique lung histopathology compared with previously described cases of obliterative bronchiolitis](#). *Front Public Health* 9:657987.

NIOSH TIC-2: 20062910

Hendricks KJ, Hendricks SA, Layne LA [2021]. [A national overview of youth and injury trends on U.S. farms, 2001–2014](#). *J Agric Saf Health* 27(3):121–134.

NIOSH TIC-2: 20063247

Henneberger PK, Patel JR, de Groene GJ, Beach J, Tarlo SM, Pal TM, Curti S [2021]. [The effectiveness of removal from exposure and reduction of exposure for managing occupational asthma: summary of an updated Cochrane systematic review](#). *Am J Ind Med* 64(3):165–169.

NIOSH TIC-2: 20061774

Hershow RB, Segaloff HE, Shockey AC, Florek KR, Murphy SK, DuBose W, Schaeffer TL, Powell JA, Gayle K, Lambert L, Schwitters A, Clarke KEN, Westergaard R [2021]. [Rapid spread of SARS-CoV-2 in a state prison after introduction by newly transferred incarcerated persons—Wisconsin, August 14–October 22, 2020](#). *MMWR* 70(13):478–482.

NIOSH TIC-2: 20062386 | NORA: Services

Hershow RB, Wu K, Lewis NM, Milne AT, Currie D, Smith AR, Lloyd S, Orleans B, Young EL, Freeman B, Schwartz N, Bryant B, Espinosa C, Nakazawa Y, Garza E, Almendares O, Abara WE, Ehlman DC, Waters K, Hill M, Risk I, Oakeson K, Tate JE, Kirking HL, Dunn A, Vallabhaneni S, Hersh AL, Chu VT [2021]. [Low SARS-CoV-2 transmission in elementary schools—Salt Lake County, Utah, December 3, 2020–January 31, 2021](#). *MMWR* 70(12):442–448.

NIOSH TIC-2: 20062313

- Holst MM, Wirth MD, Allison P, Burch JB, Andrew ME, Fekedulegn D, Hussey J, Charles LE, Violanti JM [2021]. [An analysis of shiftwork and self-reported depressive symptoms in a police cohort from Buffalo, New York](#). *Chronobiol Int* 38(6):830–838.
NIOSH TIC-2: 20062336 | NORA: Public Safety
- Horan KA, Streit JMK, Beltramo JMD, Post M [2021]. [The application of the theory coding scheme to interventions in occupational health psychology](#). *J Occup Environ Med* 63(3):e111–e119.
NIOSH TIC-2: 20061689
- Horn GP, Kerber S, Andrews J, Kesler RM, Newman H, Stewart JW, Fent KW, Smith DL [2021]. [Impact of repeated exposure and cleaning on protective properties of structural firefighting turnout gear](#). *Fire Technol* 57(2):791–813.
NIOSH TIC-2: 20060564 | NORA: Public Safety
- Howard J, Wurzelbacher S, Osborne J, Wolf J, Ruser J, Chadarevian R [2021]. [Review of cannabis reimbursement by workers' compensation insurance in the U.S. and Canada](#). *Am J Ind Med* 64(12):989–1001.
NIOSH TIC-2: 20063601
- Hrica JK, Nasarwanji M, Eiter BM, Pollard JP, Kocher LM [2021]. [Understanding why workers fall](#). *Pit Quarry* 113(8):50,52,54–55.
NIOSH TIC-2: 20064680
- Hsiao H, Whisler R, Bradtmiller B [2021]. [Needs and procedures for a national anthropometry study of law enforcement officers](#). *Hum Factors*: Epub ahead of print, 2021 June.
NIOSH TIC-2: 20062861 | NORA: Public Safety
- Hsiao H, Whisler R, Weaver D, Hause M, Newbraugh B, Zwiener J, Ronaghi M, Bradtmiller B, Rockwell B, McDougall V, Brake T [2021]. [Encumbered and traditional anthropometry of law enforcement officers for vehicle workspace and protective equipment design](#). *Hum Factors*: Epub ahead of print, 2021 December.
NIOSH TIC-2: 20064355 | NORA: Public Safety
- Hudson HL, Schill AL, Richards R [2021]. [An exploratory, qualitative study of how organizations implement the hierarchy of controls applied to Total Worker Health®](#). *Int J Environ Res Public Health* 18(19):10032.
NIOSH TIC-2: 20063651

Hughes MM, Wang A, Grossman MK, Pun E, Whiteman A, Deng L, Hallisey E, Sharpe JD, Ussery EN, Stokley S, Musial T, Weller DL, Murthy BP, Reynolds L, Gibbs-Scharf L, Harris L, Ritchey MD, Toblin RL [2021]. [County-level COVID-19 vaccination coverage and social vulnerability—United States, December 14, 2020–March 1, 2021](#). *MMWR* 70(12):431–436.

NIOSH TIC-2: 20062264 | NORA: Services

Hughes SE, Marion JW [2021]. [Cyanobacteria growth in nitrogen- & phosphorus-spiked water from a hypereutrophic reservoir in Kentucky, USA](#). *J Environ Prot* 12(2):75–89.

NIOSH TIC-2: 20062104

Humeyestewa D, Burke RM, Kaur H, Vicenti D, Jenkins R, Yatabe G, Hirschman J, Hamilton J, Fazekas K, Leslie G, Sehongva G, Honanie K, Tu'tsi E, Mayer O, Rose MA, Diallo Y, Damon S, Zilversmit Pao L, McCraw HM, Talawyma B, Herne M, Nuvangyaoma TL, Welch S, Balajee SA [2021]. [COVID-19 response by the Hopi Tribe: impact of systems improvement during the first wave on the second wave of the pandemic](#). *BMJ Glob Health* 6(5):e005150.

NIOSH TIC-2: 20062753 | NORA: Construction

IARC Monographs Vol 130 group: Belpoggi F, Cattley RC, Reisfeld B, Stewart P, Turner MC, Audebert M, Cox J, Ge C, Gustavsson P, Käfferlein H, Lash L, Lumen A, Matsumoto M, Muñoz-Quezada MT, Peters C, Purdue M, Svendsen C, Virji A, Yakubovskaya MG, Yiin J, Benbrahim-Tallaa L, DeBono NL, de Conti A, El Ghissassi F, Gwinn W, Kühnle S, Lavoué J, Middleton DRS, Miranda-Filho A, Suonio E, Onyije FM, Viegas S, Wedekind, Goodman S, Mattock H, Grosse Y, Schubauer-Berigan MK [2021]. [Carcinogenicity of 1,1,1-trichloroethane and four other industrial chemicals](#). *Lancet Oncol* 22(12):1661–1662.

NIOSH TIC-2: 20064518

Iverson SA, Levy C, Yaglom HD, Venkat HL, Artus A, Galloway R, Guagliardo SAJ, Reynolds L, Kretschmer MJ, LaFerla Jenni ME, Woodward P, Reindel AA, Tarrant S, Sylvester T, Klein R, Mundschenk P, Sunenshine R, Schafer IJ [2021]. [Clinical, diagnostic, and epidemiological features of a community-wide outbreak of canine leptospirosis in a low-prevalence region \(Maricopa County, Arizona\)](#). *J Am Vet Med Assoc* 258(6):616–629.

NIOSH TIC-2: 20062710 | NORA: Mining

Jacksha R, Raj KV [2021]. [Assessing the feasibility of a commercially available wireless Internet of Things system to improve conveyor safety](#). *Min Metall Explor* 38(1):567–574.

NIOSH TIC-2: 20061281 | NORA: Mining

- Jia H, Guerin RJ, Barile JP, Okun AH, McKnight-Eily L, Blumberg SJ, Njai R, Thompson WW [2021]. [National and state trends in anxiety and depression severity scores among adults during the COVID-19 pandemic—United States, 2020–2021](#). *MMWR* 70(40):1427–1432.
NIOSHTIC-2: 20063661 | NORA: Services / Wholesale and Retail Trade
- Jiang H, Luo Y [2021]. [Development of a roof bolter drilling control process to reduce the generation of respirable dust](#). *Int J Coal Sci Technol* 8(2):199–204.
NIOSHTIC-2: 20062238 | NORA: Mining
- Johnson CY, Rocheleau CM, Howley MM, Chiu SK, Arnold KE, Ailes EC [2021]. [Characteristics of women with urinary tract infection in pregnancy](#). *J Women's Health* 30(11):1556–1564.
NIOSHTIC-2: 20063583
- Johnson SW, Chambers DJA, Boltz MS, Koper KD [2021]. [Application of a convolutional neural network for seismic phase picking of mining-induced seismicity](#). *Geophys J Int* 224(1):230–240.
NIOSHTIC-2: 20061524
- Joseph P, Umbright CM, Roberts JR, Cumpston JL, Orandle MS, McKinney WG, Sager TM [2021]. [Lung toxicity and gene expression changes in response to whole-body inhalation exposure to cellulose nanocrystal in rats](#). *Inhal Toxicol* 33(2):66–80.
NIOSHTIC-2: 20062210 | NORA: Manufacturing
- Kagan VE, Tyurina YY, Vlasova II, Kapralov AA, Amoscato AA, Anthony-muthu TS, Tyurin VA, Shrivastava IH, Cinemre FB, Lamade A, Epperly MW, Greenberger JS, Beezhold DH, Mallampalli RK, Srivastava AK, Bayir H, Shvedova AA [2021]. [Redox epiphospholipidome in programmed cell death signaling: catalytic mechanisms and regulation](#). *Front Endocrinol* 11:628079.
NIOSHTIC-2: 20062248 | NORA: Manufacturing
- Kahveci Z, Kilinc-Balci FS, Yorio PL [2021]. [Barrier resistance of double layer isolation gowns](#). *Am J Infect Control* 49(4):430–433.
NIOSHTIC-2: 20061370 | NORA: Healthcare and Social Assistance / Public Safety
- Kahveci Z, Kilinc-Balci FS, Yorio PL [2021]. [A simulation study to assess fluid leakage through the glove-gown interface in isolation settings](#). *Am J Infect Control* 49(12):1481–1487.
NIOSHTIC-2: 20063454 | NORA: Healthcare and Social Assistance / Public Safety
- Kang S, Liang H, Qian Y, Qi C [2021]. [The composition of emissions from sanding Corian® with different sandpapers](#). *Aerosol Air Qual Res* 21(2):200377.
NIOSHTIC-2: 20062137 | NORA: Manufacturing

Karunakaran KB, Yanamala N, Boyce G, Becich MJ, Ganapathiraju MK [2021]. [Malignant pleural mesothelioma interactome with 364 novel protein-protein interactions](#). *Cancers* 13(7):1660.

NIOSH TIC-2: 20062380 | NORA: Manufacturing

Kaur H, Scholl JC, Owens-Gary M [2021]. [Depression and diabetes in workers across the life span: addressing the health of America's workforce—Behavioral Risk Factor Surveillance System, 2014–2018](#). *Diabetes Spectr*: Epub ahead of print, 2021 August.

NIOSH TIC-2: 20063428 | NORA: Wholesale and Retail Trade

Kaur H, Wurzelbacher SJ, Bushnell PT, Grosch JW, Tseng C-Y, Scholl JC, Meyers AR, Lampl M [2021]. [Workers' compensation claim rates and costs for musculoskeletal disorders related to overexertion among construction workers—Ohio, 2007–2017](#). *MMWR* 70(16):577–582.

NIOSH TIC-2: 20062527 | NORA: Construction / Wholesale and Retail Trade

Keating D, Zundel CG, Abreu M, Kregel M, Aenlle K, Nichols MD, Toomey R, Chao LL, Golier J, Abdullah L, Quinn E, Heeren T, Groh JR, Koo BB, Killiany R, Loggia ML, Younger J, Baraniuk J, Janulewicz P, Ajama J, Quay M, Baas PW, Qiang L, Conboy L, Kokkotou E, O'Callaghan JP, Steele L, Klimas N, Sullivan K [2021]. [Boston biorepository, recruitment and integrative network \(BBRAIN\): a resource for the Gulf War Illness scientific community](#). *Life Sci* 284:119903.

NIOSH TIC-2: 20063483

Kelly-Reif K, Rinsky JL, Chiu SK, Burrer S, de Perio MA, Trotter AG, Miura SS, Seo JY, Hong R, Friedman L, Hand J, Richardson G, Sokol T, Sparer-Fine EH, Laing J, Oliveri A, McGreevy K, Borjan M, Harduar-Morano L, Luckhaupt SE [2021]. [Media reports as a tool for timely monitoring of COVID-19-related deaths among first responders—United States, April 2020](#). *Public Health Rep* 136(3):315–319.

NIOSH TIC-2: 20062193 | NORA: Services

Kesler RM, Mayer A, Fent KW, Chen I-C, Deaton AS, Ormond RB, Smith DL, Wilkinson A, Kerber S, Horn GP [2021]. [Effects of firefighting hood design, laundering and doffing on smoke protection, heat stress and wearability](#). *Ergonomics* 64(6):755–767.

NIOSH TIC-2: 20062078 | NORA: Public Safety

Kiernan E, Click ES, Melstrom P, Evans ME, Layer MR, Weissman DN, Reagan-Steiner S, Wiltz JL, Hocevar S, Goodman AB, Twentyman E [2021]. [A brief overview of the national outbreak of e-cigarette, or vaping, product use-associated lung injury and the primary causes](#). *Chest* 159(1):426–431.

NIOSH TIC-2: 20060716

Kim B-H, Larson MK [2021]. [Laboratory investigation of the anisotropic confinement-dependent brittle-ductile transition of a Utah coal](#). *Int J Min Sci Technol* 31(1):51–57.

NIOSH TIC-2: 20061771

Kim B-H, Walton G, Larson MK, Berry S [2021]. [Investigation of the anisotropic confinement-dependent brittleness of a Utah coal](#). *Int J Coal Sci Technol* 8(2):274–290.

NIOSH TIC-2: 20061051 | NORA: Mining

Kimyon RS, Zang L-Y, Siegel PD, Voller LM, Schlarbaum JP, Warshaw EM [2021]. [Isothiazolinone detection in dish soap and personal care products: comparison of Lovibond Isothiazolinone Test Kit and ultrahigh-performance liquid chromatography-tandem mass spectrometry](#). *Dermatitis* 32(4):245–250.

NIOSH TIC-2: 20063192

Klein AL, Nugent G, Cavendish J, Geldenhuys WJ, Sriram K, Porter D, Fladeland R, Lockman PR, Sherman JH [2021]. [Nanoparticles as a tool in neuro-oncology theranostics](#). *Pharmaceutics* 13(7):948.

NIOSH TIC-2: 20063056 | NORA: Manufacturing

Klemetti TM, Van Dyke MA, Esterhuizen GZ [2021]. [Bleeder entry evaluation using condition mapping and numerical modeling](#). *Int J Min Sci Technol* 31(1):137–143.

NIOSH TIC-2: 20061767 | NORA: Mining

Klemetti TM, Van Dyke MA, Evaneck N, Compton CC, Tulu IB [2021]. [Insights into the relationships among the roof, rib, floor, and pillars of underground coal mines](#). *Min Metall Explor* 38(1):531–538.

NIOSH TIC-2: 20061221

Klepaker G, Henneberger PK, Hertel JK, Holla ØL, Kongerud J, Fell AKM [2021]. [Influence of asthma and obesity on respiratory symptoms, work ability and lung function: findings from a cross-sectional Norwegian population study](#). *BMJ Open Respir Res* 8(1):e000932.

NIOSH TIC-2: 20063433

Klima SS, Reed WR, Driscoll JS, Mazzella AL [2021]. [A laboratory investigation of underside shield sprays to improve dust control of longwall water spray systems](#). *Min Metall Explor* 38(1):593–602.

NIOSH TIC-2: 20061422 | NORA: Mining

Krajnak K [2021]. [Vibrotactile sensitivity testing for occupational and disease-induced peripheral neuropathies](#). *J Toxicol Environ Health, B* 24(4):162–172.

NIOSH TIC-2: 20062334 | NORA: Manufacturing

Kriss JL, Reynolds LE, Wang A, Stokley S, Cole MM, Harris LQ, Shaw LK, Black CL, Singleton JA, Fitter DL, Rose DA, Ritchey MD, Toblin RL, CDC COVID Vaccine Task Force [2021]. [COVID-19 vaccine second-dose completion and interval between first and second doses among vaccinated persons—United States, December 14, 2020–February 14, 2021](#). *MMWR* 70(11):389–395.

NIOSH TIC-2: 20062255 | NORA: Services

Ku BK, Deye G, Turkevich LA [2021]. [Periodic flow purging system for harvesting fibers from screens](#). *Aerosol Air Qual Res* 21(6):210033.

NIOSH TIC-2: 20062902 | NORA: Manufacturing

Kurth L, Casey M, Chin B, Mazurek JM, Schleiff P, Halldin C, Blackley DJ [2021]. [Medical claims paid by workers' compensation insurance among U.S. Medicare beneficiaries, 1999–2016](#). *Am J Ind Med* 64(3):185–191.

NIOSH TIC-2: 20061857 | NORA: Mining

Kurth L, Syamlal G [2021]. [Healthcare utilization, lost work days, and bed days among U.S. workers with COPD, by industry and occupation](#). *J Occup Environ Med* 63(5):e294–e297.

NIOSH TIC-2: 20062297

Lacagnina MJ, Li J, Lorca S, Rice KC, Sullivan K, O'Callaghan JP, Grace PM [2021]. [A role for neuroimmune signaling in a rat model of Gulf War Illness-related pain](#). *Brain Behav Immun* 91:418–428.

NIOSH TIC-2: 20061454

Ladd TB, Johnson JA Jr., Mumaw CL, Greve HJ, Xuei X, Simpson E, Barnes MA, Green BJ, Croston TL, Ahmed C, Lemons A, Beezhold DH, Block ML [2021]. [Aspergillus versicolor inhalation triggers neuroimmune, glial, and neuropeptide transcriptional changes](#). *ASN Neuro* 13:1–20.

NIOSH TIC-2: 20064395

Lane MA, Brownsword EA, Babiker A, Ingersoll JM, Waggoner J, Ayers M, Klopman M, Uyeki TM, Lindsley WG, Kraft CS [2021]. [Bioaerosol sampling for severe acute respiratory syndrome coronavirus 2 \(SARS-CoV-2\) in a referral center with critically ill coronavirus disease 2019 \(COVID-19\) patients March–May 2020](#). *Clin Infect Dis* 73(7):e1790–e1794.

NIOSH TIC-2: 20061971 | NORA: Healthcare and Social Assistance

Lane MA, Walawender M, Webster AS, Brownsword EA, Ingersoll JM, Miller C, Waggoner J, Uyeki TM, Lindsley WG, Kraft CS [2021]. [Sampling for SARS-CoV-2 aerosols in hospital patient rooms](#). *Viruses* 13(12):2347.

NIOSH TIC-2: 20064224 | NORA: Healthcare and Social Assistance

Lee BG, Yang JIL, Kim E, Geum SW, Park J-H, Yeo M-K [2021]. [Investigation of bacterial and fungal communities in indoor and outdoor air of elementary school classrooms by 16S rRNA gene and ITS region sequencing](#). *Indoor Air* 31(5):1553–1562.

NIOSH TIC-2: 20062337

Lefferts EC, Rosenberg AJ, Grigoriadis G, Wee SO, Kerber S, Fent KW, Horn GP, Smith DL, Fernhall B [2021]. [Firefighter hemodynamic responses to different fire training environments](#). *Vasc Med* 26(3):240–246.

NIOSH-2: 20062213 | NORA: Public Safety

Lendvay TS, Chen J, Harcourt BH, Scholte FEM, Lin YL, Kilinc-Balci FS, Lamb MM, Homdayjanakul K, Cui Y, Price A, Heyne B, Sahni J, Kabra KB, Lin Y-C, Evans D, Mores CN, Page K, Chu LF, Haubruge E, Thiry E, Ludwig-Begall LF, Wielick C, Clark T, Wagner T, Timm E, Gallagher T, Faris P, Macia N, Mackie CJ, Simmons SM, Reader S, Malott R, Hope K, Davies JM, Tritsch SR, Dams L, Nauwynck H, Willaert JF, De Jaeger S, Liao L, Zhao M, Laperre J, Jolois O, Smit SJ, Patel AN, Mayo M, Parker R, Molloy-Simard V, Lemyre J-L, Chu S, Conly JM, Chu MC [2021]. [Addressing personal protective equipment \(PPE\) decontamination: methylene blue and light inactivates severe acute respiratory coronavirus virus 2 \(SARS-CoV-2\) on N95 respirators and medical masks with maintenance of integrity and fit](#). *Infect Control Hosp Epidemiol*: Epub ahead of print, 2021 May.

NIOSH-2: 20062843

Leuraud K, Richardson DB, Cardis E, Daniels RD, Gillies M, Haylock R, Moissonnier M, Schubauer-Berigan MK, Thierry-Chef I, Kesminiene A, Laurier D [2021]. [Risk of cancer associated with low-dose radiation exposure: comparison of results between the INWORKS nuclear workers study and the A-bomb survivors study](#). *Radiat Environ Biophys* 60(1):23–39.

NIOSH-2: 20061965 | NORA: Construction / Manufacturing

Levin YS, Grant MP, Glassford E, Green BJ, Lemons AR, Avram MM [2021]. [Gaseous and particulate content of laser tattoo removal plume](#). *Dermatol Surg* 47(8):1071–1078.

NIOSH-2: 20063427 | NORA: Services

Lewis NM, Salmanson AP, Price A, Risk I, Guymon C, Wisner M, Gardner K, Fukunaga R, Schwitters A, Lambert L, Baggett HC, Ewetola R, Dunn AC [2021]. [Community-associated outbreak of COVID-19 in a correctional facility—Utah, September 2020–January 2021](#). *MMWR* 70(13):467–472.

NIOSH-2: 20062384

Lin C-C, Law BF, Hettick JM [2021]. [MicroRNA-mediated calcineurin signaling activation induces CCL2, CCL3, CCL5, IL8, and chemotactic activities in 4,4'-methylene diphenyl diisocyanate exposed macrophages](#). *Xenobiotica* 51(12):1436–1452.

NIOSH-2: 20064226 | NORA: Manufacturing

Lindberg JE, Quinn MM, Gore RJ, Gilligan CJ, Sama SR, Sheikh NN, Markkanen PK, Parker-Vega A, Karlsson ND, LeBouf RF, Virji MA [2021]. [Assessment of home care aides' respiratory exposure to total volatile organic compounds and chlorine during simulated bathroom cleaning: an experimental design with conventional and "green" products.](#) *J Occup Environ Hyg* 18(6):276–287.

NIOSH TIC-2: 20062839 | NORA: Healthcare and Social Assistance

Lindsley WG, Beezhold DH, Coyle J, Derk RC, Blachere FM, Boots T, Reynolds JS, McKinney WG, Sinsel E, Noti JD [2021]. [Efficacy of universal masking for source control and personal protection from simulated cough and exhaled aerosols in a room.](#) *J Occup Environ Hyg* 18(8):409–422.

NIOSH TIC-2: 20063034

Lindsley WG, Blachere FM, Beezhold DH, Law BF, Derk RC, Hettick JM, Woodfork K, Goldsmith WT, Harris JR, Duling MG, Boutin B, Nurkiewicz T, Boots T, Coyle J, Noti JD [2021]. [A comparison of performance metrics for cloth masks as source control devices for simulated cough and exhalation aerosols.](#) *Aerosol Sci Tech* 55(10):1125–1142.

NIOSH TIC-2: 20062971 | NORA: Healthcare and Social Assistance

Lindsley WG, Blachere FM, Law BF, Beezhold DH, Noti JD [2021]. [Efficacy of face masks, neck gaiters and face shields for reducing the expulsion of simulated cough-generated aerosols.](#) *Aerosol Sci Tech* 55(4):449–457.

NIOSH TIC-2: 20061741 | NORA: Healthcare and Social Assistance

Lindsley WG, Derk RC, Coyle JP, Martin SB Jr., Mead KR, Blachere FM, Beezhold DH, Brooks JT, Boots T, Noti JD [2021]. [Efficacy of portable air cleaners and masking for reducing indoor exposure to simulated exhaled SARS-CoV-2 aerosols—United States, 2021.](#) *MMWR* 70(27):972–976.

NIOSH TIC-2: 20063015 | NORA: Construction

Liou YL, Voller LM, Liszewski W, Ericson ME, Siegel PD, Warshaw EM [2021]. [Formaldehyde release from predispersed tattoo inks: analysis using the chromotropic acid method.](#) *Dermatitis* 32(5):327–332.

NIOSH TIC-2: 20063823

Los J, Gaydos CA, Gibert CL, Gorse GJ, Lykken J, Nyquist A-C, Price CS, Radonovich LJ Jr., Rattigan S, Reich N, Rodriguez-Barradas M, Simberkoff M, Bessesen M, Brown A, Cummings DAT, Perl TM, ResPECT Study Team [2021]. [Take-home kits to detect respiratory viruses among healthcare personnel: lessons learned from a cluster randomized clinical trial.](#) *Am J Infect Control* 49(7):893–899.

NIOSH TIC-2: 20062124

Luo Q, Holm EA, Wang C [2021]. [A transfer learning approach for improved classification of carbon nanomaterials from TEM images.](#) *Nanoscale Adv* 3(1):206–213.

NIOSH TIC-2: 20061855 | NORA: Manufacturing

Majumder N, Goldsmith WT, Kodali VK, Velayutham M, Friend SA, Khramtsov VV, Nurkiewicz TR, Erdely A, Zeidler-Erdely PC, Castranova V, Harkema JR, Kelly EE, Hussain S [2021]. [Oxidant-induced epithelial alarmin pathway mediates lung inflammation and functional decline following ultrafine carbon and ozone inhalation co-exposure](#). *Redox Biol* 46:102092.

NIOSH TIC-2: 20063449 | NORA: Construction / Manufacturing

Majumder N, Velayutham M, Bitounis D, Kodali VK, Hasan Mazumder MH, Amedro J, Khramtsov VV, Erdely A, Nurkiewicz T, Demokritou P, Kelley EE, Hussain S [2021]. [Oxidized carbon black nanoparticles induce endothelial damage through C-X-C chemokine receptor 3-mediated pathway](#). *Redox Biol* 47:102161.

NIOSH TIC-2: 20063751 | NORA: Construction / Manufacturing

Markkanen P, Peters SE, Grant M, Dennerlein JT, Wagner GR, Burke L, Wallace L, Sorensen G [2021]. [Development and application of an innovative instrument to assess work environment factors for injury prevention in the food service industry](#). *Work* 68(3):641–651.

NIOSH TIC-2: 20062195 | NORA: Services

Mayer AC, Fent KW, Chen I-C, Sammons D, Toennis C, Robertson S, Kerber S, Horn GP, Smith DL, Calafat AM, Ospina M, Sjodin A [2021]. [Characterizing exposures to flame retardants, dioxins, and furans among firefighters responding to controlled residential fires](#). *Int J Hyg Environ Health* 236:113782.

NIOSH TIC-2: 20062978 | NORA: Public Safety

Mayton AG, Kim BY [2021]. [Using a mobile app to estimate whole-body vibration and seat isolation performance in surface mining](#). *Int J Heavy Vehicle Syst* 28(4):487–502.

NIOSH TIC-2: 20063909

McCormick S, Niang M, Dahm MM [2021]. [Occupational exposures to engineered nanomaterials: a review of workplace exposure assessment methods](#). *Curr Environ Health Rep* 8(3):223–234.

NIOSH TIC-2: 20062937

Meyers AR, Wurzelbacher SJ, Krieg EF, Ramsey JG, Crombie K, Christianson AL, Luo L, Burt S [2021]. [Work-related risk factors for rotator cuff syndrome in a prospective study of manufacturing and healthcare workers](#). *Hum Factors*: Epub ahead of print, 2021 June.

NIOSH TIC-2: 20062991

Michalovicz LT, Kelly KA, Miller DB, Sullivan K, O'Callaghan JP [2021]. [The \$\beta\$ -adrenergic receptor blocker and anti-inflammatory drug propranolol mitigates brain cytokine expression in a long-term model of Gulf War Illness](#). *Life Sci* 285:119962.

NIOSH TIC-2: 20063715

Mietchen D, Raspberry L, Morata T, Sadowski JP, Novakovich J, Heilman JM [2021]. [Developing a scalable framework for partnerships between health agencies and the Wikimedia ecosystem](#). *Res Ideas Outcomes* 7:e68121.

NIOSH TIC-2: 20063268 | NORA: Construction / Manufacturing

Mohamed K, Van Dyke M, Rashed G, Sears MM, Kimutis R [2021]. [Preliminary rib support requirements for solid coal ribs using a coal pillar rib rating \(CPRR\)](#). *Int J Min Sci Technol* 31(1):15–22.

NIOSH TIC-2: 20061766 | NORA: Mining

Morata TC, Gong W, Tikka C, Samelli A, Verbeek JH [2021]. [Effects of hearing protection field attenuation estimation systems and associated training on the level of noise attenuation in workers exposed to noise](#). *Cochrane Database Syst Rev*(10):CD015066.

NIOSH TIC-2: 20063908 | NORA: Construction / Manufacturing

Morata TC, Hungerford M, Konrad-Martin D [2021]. [Potential risks to hearing functions of service members from exposure to jet fuels](#). *Am J Audiol* 30(3S):922–927.

NIOSH TIC-2: 20063426 | NORA: Construction / Manufacturing

Morris AM, Leonard SS, Fowles JR, Boots TE, Mnatsakanova A, Attfield KR [2021]. [Effects of e-cigarette flavoring chemicals on human macrophages and bronchial epithelial cells](#). *Int J Environ Res Public Health* 18(21):11107.

NIOSH TIC-2: 20063901 | NORA: Manufacturing

Morrissey MC, Brewer GJ, Williams WJ, Quinn T, Casa DJ [2021]. [Impact of occupational heat stress on worker productivity and economic cost](#). *Am J Ind Med* 64(12):981–988.

NIOSH TIC-2: 20063703

Morrissey MC, Casa DJ, Brewer GJ, Adams WM, Hosokawa Y, Benjamin CL, Grundstein AJ, Hostler D, McDermott BP, McQuerry ML, Stearns RL, Filep EM, DeGroot DW, Fulcher J, Flouris AD, Huggins RA, Jacklitsch BL, Jardine JF, Lopez RM, McCarthy RB, Pitisladis Y, Pryor RR, Schlader ZJ, Smith CJ, Smith DL, Spector JT, Vanos JK, Williams WJ, Vargas NT, Yeargin SW [2021]. [Heat safety in the workplace: modified Delphi consensus to establish strategies and resources to protect the U.S. workers](#). *GeoHealth* 5(8):e2021GH000443.

NIOSH TIC-2: 20063439

Mostovenko E, Dahm MM, Schubauer-Berigan MK, Eye T, Erdely A, Young TL, Campen MJ, Ottens AK [2021]. [Serum peptidome: diagnostic window into pathogenic processes following occupational exposure to carbon nanomaterials](#). *Part Fibre Toxicol* 18:39.

NIOSH TIC-2: 20063911 | NORA: Manufacturing

Mostovenko E, Saunders S, Muldoon PP, Bishop L, Campen MJ, Erdely A, Ottens AK [2021]. [Carbon nanotube exposure triggers a cerebral peptidomic response: barrier compromise, neuroinflammation and a hyperexcited state](#). *Toxicol Sci* 182(1):107–119. **NIOSH TIC-2: 20062664** | NORA: Manufacturing

Murashov V, Geraci CL, Schulte PA, Howard J [2021]. [Nano- and microplastics in the workplace](#). *J Occup Environ Hyg* 18(10–11):489–494. **NIOSH TIC-2: 20063582**

Murthy BP, Sterrett N, Weller D, Zell E, Reynolds L, Toblin RL, Murthy N, Kriss J, Rose C, Cadwell B, Wang A, Ritchey MD, Gibbs-Scharf L, Qualters JR, Shaw L, Brookmeyer KA, Clayton H, Eke P, Adams L, Zajac J, Patel A, Fox K, Williams C, Stokley S, Flores S, Barbour KE, Harris LQ [2021]. [Disparities in COVID-19 vaccination coverage between urban and rural counties—United States, December 14, 2020–April 10, 2021](#). *MMWR* 70(20):759–764. **NIOSH TIC-2: 20062704** | NORA: Services

Nahorniak J, Bovbjerg V, Case S, Kincl L [2021]. [Application of data linkage techniques to Pacific Northwest commercial fishing injury and fatality data](#). *Inj Epidemiol* 8(1):26. **NIOSH TIC-2: 20063044** | NORA: Agriculture, Forestry and Fishing

Nasarwanji MF, Dempsey PG, Pollard J, Whitson A, Kocher L [2021]. [A taxonomy of surface mining slip, trip, and fall hazards as a guide to research and practice](#). *Appl Ergon* 97:103542. **NIOSH TIC-2: 20063274**

Nassan FL, Chavarro JE, Johnson CY, Boiano JM, Rocheleau CM, Rich-Edwards JW, Lawson CC [2021]. [Pre-pregnancy handling of antineoplastic drugs and risk of miscarriage in female nurses](#). *Ann Epidemiol* 53:95–102.e2. **NIOSH TIC-2: 20061065**

Navarro KM, Butler CR, Fent K, Toennis C, Sammons D, Ramirez-Cardenas A, Clark KA, Byrne DC, Graydon PS, Hale CR, Wilkinson AF, Smith DL, Alexander-Scott MC, Pinkerton LE, Eisenberg J, Domitrovich JW [2021]. [The Wildland Firefighter Exposure and Health Effect \(WFFEHE\) study: rationale, design, and methods of a repeated-measures study](#). *Ann Work Expo Health*: Epub ahead of print, 2021 December. **NIOSH TIC-2: 20064217** | NORA: Public Safety

Navarro KM, Clark KA, Hardt DJ, Reid CE, Lahm PW, Domitrovich JW, Butler CR, Balmes JR [2021]. [Wildland firefighter exposure to smoke and COVID-19: a new risk on the fire line](#). *Sci Total Environ* 760:144296. **NIOSH TIC-2: 20061808** | NORA: Public Safety

Navarro KM, West MR, O'Dell K, Sen P, Chen I-C, Fischer EV, Hornbrook RS, Apel EC, Hills AJ, Jarnot A, DeMott P, Domitrovich JW [2021]. [Exposure to particulate matter and estimation of volatile organic compounds across wildland firefighter job tasks](#). *Environ Sci Technol* 55(17):11795–11804.

NIOSH TIC-2: 20063580

Nemoto N, Dhillon S, Fink S, Holman EJ, Keswani Cope A, Dinh T-H, Meadows J, Taryal D, Akindileni F, Franck M, Gelber E, Bacci L, Ahmed S, Thomas ES, Neatherlin JC [2021]. [Evaluation of test to stay strategy on secondary and tertiary transmission of SARS-CoV-2 in K-12 schools—Lake County, Illinois, August 9–October 29, 2021](#). *MMWR* 70(51–52):1778–1781.

NIOSH TIC-2: 20064213

Nett RJ, Stanton M, Grimes GR [2021]. [Occupational respiratory and skin diseases among workers exposed to metalworking fluids](#). *Curr Opin Allergy Clin Immunol* 21(2):121–127.

NIOSH TIC-2: 20061781 | NORA: Services

Neu DT, Mead KR, McClelland TL, Lindsley WG, Martin SB Jr., Heil G, See M, Feng HA [2021]. [Surface dosimetry of ultraviolet germicidal irradiation using a colorimetric technique](#). *Ann Work Expo Health* 65(5):605–611.

NIOSH TIC-2: 20062128 | NORA: Construction

Neu-Baker NM, Dozier AK, Eastlake AC, Brenner SA [2021]. [Evaluation of enhanced darkfield microscopy and hyperspectral imaging for rapid screening of TiO₂ and SiO₂ nanoscale particles captured on filter media](#). *Microsc Res Tech* 84(12):2968–2976.

NIOSH TIC-2: 20063090 | NORA: Manufacturing

Nevels TL, Burch JB, Wirth MD, Ginsberg JP, McLain AC, Andrew ME, Allison P, Fekedulegn D, Violanti JM [2021]. [Shift work adaptation among police officers: the BCOPS study](#). *Chronobiol Int* 38(6):907–923.

NIOSH TIC-2: 20062430 | NORA: Public Safety

Nguyen KH, Yankey D, Coy KC, Brookmeyer KA, Abad N, Guerin R, Syamlal G, Lu P-j, Baack BN, Razzaghi H, Okun A, Singleton JA [2021]. [COVID-19 vaccination coverage, intent, knowledge, attitudes, and beliefs among essential workers, United States](#). *Emerg Infect Dis* 27(11):2908–2913.

NIOSH TIC-2: 20064360

Niemeier RT, Maier A, Reichard JF [2021]. [Rapid review of dermal penetration and absorption of inorganic lead compounds for occupational risk assessment](#). *Ann Work Expo Health*: Epub ahead of print, 2021 November.

NIOSH TIC-2: 20064061

Noll J, Lee T, Vanderslice S, Barone T [2021]. [Capability of the airstream helmet for protecting mine workers from diesel particulate matter](#). *Min Metall Explor* 38(1):635–644.

NIOSH TIC-2: 20061849 | NORA: Mining

Nykänen M, Guerin RJ, Vuori J [2021]. [Identifying the “active ingredients” of a school-based, workplace safety and health training intervention](#). *Prev Sci* 22(7):1001–1011.

NIOSH TIC-2: 20061973

Osborne JC, Chosewood LC [2021]. [NIOSH responds to the U.S. drug overdose epidemic](#). *New Solut* 31(3):307–314.

NIOSH TIC-2: 20063455

Othumpangat S, Beezhold DH, Umbright CM, Noti JD [2021]. [Influenza virus-induced novel miRNAs regulate the STAT pathway](#). *Viruses* 13(6):967.

NIOSH TIC-2: 20062905 | NORA: Healthcare and Social Assistance

Othumpangat S, Lindsley WG, Beezhold DH, Kashon ML, Burrell CN, Mubareka S, Noti JD [2021]. [Differential expression of serum exosome microRNAs and cytokines in influenza A and B patients collected in the 2016 and 2017 influenza seasons](#). *Pathogens* 10(2):149.

NIOSH TIC-2: 20062061 | NORA: Healthcare and Social Assistance

Pan CS, Ning X, Wimer B, Zwiener J, Kau T-Y [2021]. [Biomechanical assessment while using production tables on mast climbing work platforms](#). *Appl Ergon* 90:103276.

NIOSH TIC-2: 20061163 | NORA: Construction

Pan CS, Wimer BM, Welcome DE, Wu JZ [2021]. [An approach to characterize the impact absorption performance of construction helmets in top impact](#). *J Test Eval* 49(3):2162–2174.

NIOSH TIC-2: 20061387 | NORA: Construction

Park J-H, Lemons AR, Roseman J, Green BJ, Cox-Ganser JM [2021]. [Bacterial community assemblages in classroom floor dust of 50 public schools in a large city: characterization using 16S rRNA sequences and associations with environmental factors](#). *Microbiome* 9:15.

NIOSH TIC-2: 20061878 | NORA: Services

Park RM [2021]. [Risk assessment for toluene diisocyanate and respiratory disease human studies](#). *Saf Health Work* 12(2):174–183.

NIOSH TIC-2: 20061859

Park RM [2021]. Preliminary risk assessment for acrylamide and peripheral neuropathy. *Neurotoxicology* 85:10–17.

NIOSH TIC-2: 20062749

Park RM, Carreón T, Hanley KW [2021]. Risk assessment for o-toluidine and bladder cancer incidence. *Am J Ind Med* 64(9):758–770.

NIOSH TIC-2: 20062889

Parks DA, Griffiths PR, Weakley AT, Miller AL [2021]. Quantifying elemental and organic carbon in diesel particulate matter by mid-infrared spectrometry. *Aerosol Sci Tech* 55(9):1014–1027.

NIOSH TIC-2: 20062655 | NORA: Mining

Pathela P, Crawley A, Weiss D, Maldin B, Cornell J, Purdin J, Schumacher PK, Marovich S, Li J, Daskalakis D, NYC Serosurvey Team [2021]. Seroprevalence of severe acute respiratory syndrome coronavirus 2 following the largest initial epidemic wave in the United States: findings from New York City, 13 May to 21 July 2020. *J Infect Dis* 224(2):196–206.

NIOSH TIC-2: 20063135

Perera IE, Harris ML, Sapko MJ [2021]. Analysis and characterization of anti-caking additives used in rock dust to mitigate mine explosions. *Min Metall Explor* 38(3):1411–1419.

NIOSH TIC-2: 20062594

Perera IE, Harris ML, Sapko MJ, Dyduch Z, Cybulski K, Hildebrant R, Goodman GVR [2021]. Large-scale explosion propagation testing of treated and non-treated rock dust when overlain by a thin layer of coal dust. *Min Metall Explor* 38(2):1009–1017.

NIOSH TIC-2: 20061949

Pimentel LC, May AC, Iskander JK, Banks RE, Gibbins JD [2021]. Assessment of one health knowledge, animal welfare implications, and emergency preparedness considerations for effective public health response. *Public Health Rep: Epub ahead of print*, 2021 September.

NIOSH TIC-2: 20063658

Portnoff L, Rengasamy S, Niezgoda G, Sbarra D, Pissano A, Furlong J [2021]. Effects of volume, velocity, and composition on the resistance to synthetic blood penetration of N95 filtering facepiece respirators and other head/facial personal protective equipment. *J Occup Environ Hyg* 18(2):84–89.

NIOSH TIC-2: 20062145 | NORA: Public Safety / Healthcare and Social Assistance

Pratap P, Dickson A, Love M, Zanoni J, Donato C, Flynn MA, Schulte PA [2021]. [Public health impacts of underemployment and unemployment in the United States: exploring perceptions, gaps and opportunities](#). *Int J Environ Res Public Health* 18(19):10021.

NIOSH TIC-2: 20063655

Prestel C, Anderson E, Forsberg K, Lyman M, de Perio MA, Kuhar D, Edwards K, Rivera M, Shugart A, Walters M, Dotson NQ [2021]. [Candida auris outbreak in a COVID-19 specialty care unit—Florida, July–August 2020](#). *MMWR* 70(2):56–57.

NIOSH TIC-2: 20061834

Qi C, Kang S [2021]. [Evaluation of saw blade designs on controlling dust from cutting fiber-cement](#). *Aerosol Air Qual Res* 21(8):210028.

NIOSH TIC-2: 20063474 | NORA: Construction

Quinn TD, Gutiérrez-Santamaría B, Sáez I, Santisteban A, Lee J-Y, Kim J-H, Coca A [2021]. [Comparison of three internationally certified firefighter protective ensembles: physiological responses, mobility, and comfort](#). *Int J Ind Ergon* 86:103232.

NIOSH TIC-2: 20063992

Quinn TD, Yorio PL, Smith PM, Seo Y, Whitfield GP, Gibbs BB [2021]. [Occupational physical activity and cardiovascular disease in the United States](#). *Occup Environ Med* 78(10):724–730.

NIOSH TIC-2: 20062281

Ramon GD, Green BJ, Levetin E, Makra L, Bielory L [2021]. [The importance of binomial nomenclature for the identification of pollen aeroallergens](#). *J Allergy Clin Immunol Pract* 9(7):2642–2644.

NIOSH TIC-2: 20062393

Ranpara A, Stefaniak AB, Fernandez E, LeBouf RF [2021]. [Effect of puffing behavior on particle size distributions and respiratory depositions from pod-style electronic cigarette, or vaping, products](#). *Front Public Health* 9:750402.

NIOSH TIC-2: 20064255 | NORA: Services

Ranpara A, Stefaniak AB, Williams K, Fernandez E, LeBouf RF [2021]. [Modeled respiratory tract deposition of aerosolized oil diluents used in \$\Delta^9\$ -THC-based electronic cigarette liquid products](#). *Front Public Health* 9:744166.

NIOSH TIC-2: 20064071 | NORA: Services

Rao CY, Robinson T, Huster K, Laws RL, Keating R, Tobolowsky FA, McMichael TM, Gonzales E, Mosites E [2021]. [Occupational exposures and mitigation strategies among homeless shelter workers at risk of COVID-19](#). *PLoS One* 16(11):e0253108.

NIOSH TIC-2: 20063998

Rashed G, Mohamed K, Kimutis R [2021]. [A coal rib monitoring study in a room-and-pillar retreat mine](#). *Int J Min Sci Technol* 31(1):127–135.

NIOSH TIC-2: 20061772 | NORA: Mining

Rashed G, Slaker B, Sears MM, Murphy MM [2021]. [A parametric study for the effect of dip on stone mine pillar stability using a simplified model geometry](#). *Min Metall Explor* 38(2):967–977.

NIOSH TIC-2: 20062126 | NORA: Mining

Ray TK [2021]. [Work related well-being is associated with individual subjective well-being](#). *Ind Health*: Epub ahead of print, 2021 November.

NIOSH TIC-2: 20064053

Ray TK, Pana-Cryan R [2021]. [Work flexibility and work-related well-being](#). *Int J Environ Res Public Health* 18(6):3254.

NIOSH TIC-2: 20062331

Razzaghi H, Masalovich S, Srivastav A, Black CL, Nguyen KH, de Perio MA, Laney AS, Singleton JA [2021]. [COVID-19 vaccination and intent among healthcare personnel, U.S.](#) *Am J Prev Med*: Epub ahead of print, 2021 December.

NIOSH TIC-2: 20064362

Reed WR, Shahan M, Gangrade V, Ross G, Singh K, Grounds T [2021]. [Field testing of roof bolter canopy air curtain operating downwind of the continuous miner](#). *Min Metall Explor* 38(1):581–592.

NIOSH TIC-2: 20061296 | NORA: Mining

Reed WR, Shahan MR, Zheng Y, Mazzella A [2021]. [Laboratory results of foam application testing for longwall shield dust control in a simulated environment](#). *Int J Coal Sci Technol* 8(2):217–227.

NIOSH TIC-2: 20062259 | NORA: Mining

Reis GB, Rees JC, Ivanova AA, Kuklennyk Z, Drew NM, Pirkle JL, Barr JR [2021]. [Stability of lipids in plasma and serum: effects of temperature-related storage conditions on the human lipidome](#). *J Mass Spectrom Adv Clin Lab* 22:34–42.

NIOSH TIC-2: 20064384

Rengasamy S, Sbarra D, Horvatin M [2021]. [Do industrial N95 respirators meet the requirements to be used in healthcare?—A possible solution to respirator shortages during the next pandemic](#). *Am J Infect Control* 49(9):1194–1196.

NIOSH TIC-2: 20062443

- Rengasamy S, Zhuang Z, Lawrence RB, Boutin B, Yorio P, Horvatin M, McClain C, Harris JR, Coffey C [2021]. [Evaluation of total inward leakage for NIOSH-approved elastomeric half-facepiece, full-facepiece, and powered air-purifying respirators using sodium chloride and corn oil aerosols.](#) *J Occup Environ Hyg* 18(7):305–313.
NIOSH-2: 20062838 | NORA: Healthcare and Social Assistance
- Richardson DB, Rage E, Demers PA, Do MT, DeBono N, Fenske N, Deffner V, Kreuzer M, Samet J, Wiggins C, Schubauer-Berigan MK, Kelly-Reif K, Tomasek L, Zablotska LB, Laurier D [2021]. [Mortality among uranium miners in North America and Europe: the Pooled Uranium Miners Analysis \(PUMA\).](#) *Int J Epidemiol* 50(2):633–643.
NIOSH-2: 20061620
- Rich-Edwards JW, Ding M, Rocheleau CM, Boiano JM, Kang JH, Becene I, Nguyen LH, Chan AT, Hart JE, Chavarro JE, Lawson CC [2021]. [American frontline healthcare personnel's access to and use of personal protective equipment early in the COVID-19 pandemic.](#) *J Occup Environ Med* 63(11):913–920.
NIOSH-2: 20063175 | NORA: Healthcare and Social Assistance
- Riedy SM, Fekedulegn D, Vila B, Andrew M, Violanti JM [2021]. [Shift work and overtime across a career in law enforcement: a 15-year study.](#) *Policing* 44(2):200–212.
NIOSH-2: 20062394 | NORA: Public Safety
- Rispens JR, Hast M, Edens C, Ritter T, Mercante JW, Siegel M, Martin SB, Thomasson E, Barskey AE [2021]. [Legionellosis cluster associated with working at a racetrack facility in West Virginia, 2018.](#) *J Environ Health* 83(6):14–19.
NIOSH-2: 20061799
- Roberge RL [2021]. [Pantallas faciales para el control de infecciones: una revisión.](#) *J Occup Environ Hyg* 18(S1):S44–S52.
NIOSH-2: 20062517
- Robinson T, Sussell A, Yeoman K, Retzer K, Poplin G [2021]. [Health conditions in retired manual labor miners and oil and gas extraction workers: National Health Interview Survey, 2007–2017.](#) *Am J Ind Med* 64(2):118–126.
NIOSH-2: 20061306 | NORA: Mining / Oil and Gas Extraction
- Rogers B, Schill AL [2021]. [Ethics and Total Worker Health®: constructs for ethical decision-making and competencies for professional practice.](#) *Int J Environ Res Public Health* 18(19):10030.
NIOSH-2: 20063718
- Rowland JH III, Yuan L, Thomas RA [2021]. [Evaluation of carbon monoxide and smoke sensors at a low ventilation velocity.](#) *Min Metall Explor* 38(1):603–608.
NIOSH-2: 20061420 | NORA: Mining

Samelli AG, Matas CG, Gomes RF, Morata TC [2021]. [Systematic review of interventions to prevent occupational noise-induced hearing loss—a follow-up. \(Revisão sistemática de intervenções para prevenção da perda auditiva induzida por ruído ocupacional—uma atualização\)](#). *Codas* 33(4):e20190189.

NIOSH TIC-2: 20062942 | NORA: Construction / Manufacturing

Sammarco JJ, Helfrich W [2021]. [Illustrating the Luminaire Comparison Method](#). *IEEE Trans Ind Appl* 57(3):3023–3028.

NIOSH TIC-2: 20062139

Santiago-Colón A, Rocheleau CM, Bertke S, Christianson A, Collins DT, Trester-Wilson E, Sanderson W, Waters MA, Reefhuis J, National Birth Defects Prevention Study [2021]. [Testing and validating semi-automated approaches to the occupational exposure assessment of polycyclic aromatic hydrocarbons](#). *Ann Work Expo Health* 65(6):682–693.

NIOSH TIC-2: 20062554

Scala G, Delaval MN, Mukherjee SP, Federico A, Khaliullin TO, Yanamala N, Fatkhutkinova LM, Kisin ER, Greco D, Fadeel B, Shvedova AA [2021]. [Multi-walled carbon nanotubes elicit concordant changes in DNA methylation and gene expression following long-term pulmonary exposure in mice](#). *Carbon* 178:563–572.

NIOSH TIC-2: 20062427

Schulte PA, Piacentino JD, Weissman DN, de Perio MA, Chiu SK, Radonovich LJ, Trout D, Beezhold D, Hearl FJ, Howard J [2021]. [Proposed framework for considering SARS-CoV-2 antigen testing of unexposed asymptomatic workers in selected workplaces](#). *J Occup Environ Med* 63(8):646–656.

NIOSH TIC-2: 20062731 | NORA: Services

Schulte PA, Weissman DN, Luckhaupt SE, de Perio MA, Beezhold D, Piacentino JD, Radonovich LJ Jr., Hearl FJ, Howard J [2021]. [Considerations for pooled testing of employees for SARS-CoV-2](#). *J Occup Environ Med* 63(1):1–9.

NIOSH TIC-2: 20061205

Sears MM, Slaker B, Rashed G, Miller J [2021]. [Analysis of the impacts of mining sequence and overburden depth on stability at a dipping limestone mine](#). *Min Metall Explor* 38(2):959–965.

NIOSH TIC-2: 20062127 | NORA: Mining

Semmens EO, Leary CS, West MR, Noonan CW, Navarro KM, Domitrovich JW [2021]. [Carbon monoxide exposures in wildland firefighters in the United States and targets for exposure reduction](#). *J Expo Sci Environ Epidemiol* 31(5):923–929.

NIOSH TIC-2: 20063193 | NORA: Public Safety

Shay DK, Gee J, Su JR, Myers TR, Marquez P, Liu R, Zhang B, Licata C, Clark TA, Shimabukuro TT [2021]. [Safety monitoring of the Janssen \(Johnson & Johnson\) COVID-19 vaccine—United States, March–April 2021](#). *MMWR* 70(18):680–684.

NIOSH TIC-2: 20062587

Shimabukuro TT, Kim SY, Myers TR, Moro PL, Oduyebo T, Panagiotakopoulos L, Marquez PL, Olson CK, Liu R, Chang KT, Ellington SR, Burkel VK, Smoots AN, Green CJ, Licata C, Zhang BC, Alimchandani M, Mba-Jonas A, Martin SW, Gee JM, Meaney-Delman DM, CDC v-safe COVID-19 Pregnancy Registry Team [2021].

[Preliminary findings of mRNA Covid-19 vaccine safety in pregnant persons](#). *N Engl J Med* 384(24):2273–2282.

NIOSH TIC-2: 20062634

Shockey TM, Tsai RJ, Cho P [2021]. [Prevalence of diagnosed diabetes among employed U.S. adults by demographic characteristics and occupation, 36 states, 2014 to 2018](#).

J Occup Environ Med 63(4):302–310.

NIOSH TIC-2: 20061702

Shoeb M, Meier HCS, Antonini JM [2021]. [Telomeres in toxicology: occupational health](#). *Pharmacol Ther* 220:107742.

NIOSH TIC-2: 20061528 | NORA: Manufacturing

Silver SR, Alarcon WA, Li J [2021]. [Incident chronic obstructive pulmonary disease associated with occupation, industry, and workplace exposures in the Health and Retirement Study](#). *Am J Ind Med* 64(1):26–38.

NIOSH TIC-2: 20061418

Simberkoff MS, Rattigan SM, Gaydos CA, Gibert CL, Gorse GJ, Nyquist A-C, Price CS, Reich N, Rodriguez-Barradas MC, Bessesen M, Brown A, Cummings DAT, Radonovich LJ, Perl TM, ResPECT Study Team [2021]. [Impact of mandatory vaccination of healthcare personnel on rates of influenza and other viral respiratory pathogens](#). *Infect Control Hosp Epidemiol*: Epub ahead of print, 2021 August.

NIOSH TIC-2: 20063291

Simeonov P, Hsiao H, Nimbarte A, Current R, Ammons D, Choi H-S, Rahman MM, Weaver D [2021]. [Evaluation of advanced curve speed warning system for fire trucks](#). *Appl Ergon* 97:103527.

NIOSH TIC-2: 20063188

Slaker B, Murphy M, Rashed G, Gangrade V, Van Dyke M, Minoski T, Floyd K [2021]. [Monitoring of multiple-level stress interaction at two underground limestone mines](#). *Min Metall Explor* 38(1):623–633.

NIOSH TIC-2: 20061527 | NORA: Mining

Smalt CJ, Ciccarelli GA, Rodriguez AR, Murphy WJ [2021]. [A deep neural-network classifier for photograph-based estimation of hearing protection attenuation and fit.](#) *J Acoust Soc Am* 150(2):1067–1075.

NIOSH TIC-2: 20063321 | NORA: Manufacturing / Services

Smith D, Neu-Baker NM, Eastlake AC, Zurbenko IG, Brenner SA [2021]. [Evaluation of classification methods for identifying multiwalled carbon nanotubes collected on mixed cellulose ester filter media.](#) *J Microsc* 283(2):102–116.

NIOSH TIC-2: 20062526 | NORA: Manufacturing

Snyder K, Thomas B, Lu M-L, Jha R, Barim MS, Hayden M, Werren D [2021]. [A deep learning approach for lower back-pain risk prediction during manual lifting.](#) *PLoS One* 16(2):e0247162.

NIOSH TIC-2: 20062196

Solle NS, Santiago KM, Louzado Feliciano P, Calkins MM, Fent K, Jahnke S, Parks N, Buren H, Grant C, Burgess JL, Caban-Martinez AJ [2021]. [Perceptions of work-related health and cancer risks among women firefighters: a qualitative study.](#) *J Occup Environ Med* 63(12):e846–e852.

NIOSH TIC-2: 20063526

Staack SD, Griffin SC, Lee VST, Lutz EA, Burgess JL [2021]. [Evaluation of CBRN respirator protection in simulated fire overhaul settings.](#) *Ann Work Expo Health* 65(7):843–853.

NIOSH TIC-2: 20062368

Stach R, Barone T, Cauda E, Mizaikoff B [2021]. [A novel calibration method for the quantification of respirable particles in mining scenarios using Fourier transform infrared spectroscopy.](#) *Appl Spectrosc* 75(3):307–316.

NIOSH TIC-2: 20061249

Stefaniak AB, Bowers LN, Cottrell G, Erdem E, Knepp AK, Martin S, Pretty J, Duling MG, Arnold ED, Wilson Z, Krider B, LeBouf RF, Virji MA, Sirinterlikci A [2021]. [Use of 3-dimensional printers in educational settings: the need for awareness of the effects of printer temperature and filament type on contaminant releases.](#) *ACS Chem Health Saf* 28(6):444–456.

NIOSH TIC-2: 20064163

Stefaniak AB, Du Preez S, Du Plessis JL [2021]. [Additive manufacturing for occupational hygiene: a comprehensive review of processes, emissions, & exposures.](#) *J Toxicol Environ Health, B* 24(5):173–222.

NIOSH TIC-2: 20062986 | NORA: Manufacturing

- Stefaniak AB, LeBouf RF, Ranpara A, Leonard SS [2021]. [Toxicology of flavoring- and cannabis-containing e-liquids used in electronic delivery systems](#). *Pharmacol Ther* 224:107838.
NIOSHTIC-2: 20062372 | NORA: Services
- Stefaniak AB, Wade EE, Lawrence RB, Arnold ED, Virji MA [2021]. [Particle transfer and adherence to human skin compared with cotton glove and pre-moistened polyvinyl alcohol exposure sampling substrates](#). *J Environ Sci Health. Part A, Tox Hazard Subst Environ Eng* 56(5):585–598.
NIOSHTIC-2: 20062332
- Sterling MR, Li J, Cho J, Ringel JB, Silver SR [2021]. [Prevalence and predictors of home health care workers' general, physical, and mental health: findings from the 2014–2018 Behavioral Risk Factor Surveillance System](#). *Am J Public Health* 111(12):2239–2250.
NIOSHTIC-2: 20064239
- Strauch AL, Brady TM, Niezgoda G, Almaguer CM, Shaffer RE, Fisher EM [2021]. [Evaluación de la eficacia de las lengüetas en las tiras de la mascarilla autofiltrante para mejorar las técnicas de retirada adecuadas al mismo tiempo que se reduce la transmisión por contacto de los patógenos](#). *J Occup Environ Hyg* 18(S1):S35–S43.
NIOSHTIC-2: 20062503 | NORA: Healthcare and Social Assistance
- Streit JMK, Felknor SA, Edwards NT, Howard J [2021]. [Leveraging strategic foresight to advance worker safety, health, and well-being](#). *Int J Environ Res Public Health* 18(16):8477.
NIOSHTIC-2: 20063305
- Su DWH, Zhang P, Dougherty H, Van Dyke M, Kimutis R [2021]. [Longwall mining, shale gas production, and underground miner safety and health](#). *Int J Min Sci Technol* 31(3):523–529.
NIOSHTIC-2: 20061966 | NORA: Mining
- Syamlal G, Clark KA, Blackley DJ, King BA [2021]. [Prevalence of electronic cigarette use among adult workers—United States, 2017–2018](#). *MMWR* 70(9):297–303.
NIOSHTIC-2: 20062177
- Syamlal G, Doney B, Hendricks S, Mazurek JM [2021]. [Chronic obstructive pulmonary disease and U.S. workers: prevalence, trends, and attributable cases associated with work](#). *Am J Prev Med* 61(3):e127–e137.
NIOSHTIC-2: 20063275
- Syron LN, Case SL, Lee JR, Lucas DL [2021]. [Linking datasets to characterize injury and illness in Alaska's fishing industry](#). *J Agromed* 26(1):31–44.
NIOSHTIC-2: 20061540 | NORA: Agriculture, Forestry and Fishing

Tallapragada M, Hardy BW, Lybrand E, Hallman WK [2021]. [Impact of abstract versus concrete conceptualization of genetic modification \(GM\) technology on public perceptions](#). *Risk Anal* 41(6):976–991.

NIOSHTIC-2: 20061122

Tegart LJ, Johnston FH, Borchers Arriagada N, Workman A, Dickinson JL, Green BJ, Jones PJ [2021]. [‘Pollen potency’: the relationship between atmospheric pollen counts and allergen exposure](#). *Aerobiologia* 37(4):825–841.

NIOSHTIC-2: 20063619

Tomasi SE, Ramirez-Cardenas A, Thiese MS, Rinsky JL, Chiu SK, Luckhaupt S, Bateman R, Burrer SL [2021]. [COVID-19 mortality among Amalgamated Transit Union \(ATU\) and Transport Workers Union \(TWU\) workers—March–July 2020, New York City metro area](#). *Am J Ind Med* 64(9):723–730.

NIOSHTIC-2: 20063231 | NORA: Services

Tuncay D, Tulu IB, Klemetti T [2021]. [Investigating different methods used for approximating pillar loads in longwall coal mines](#). *Int J Min Sci Technol* 31(1):23–32.

NIOSHTIC-2: 20061769 | NORA: Mining

Tuncay D, Tulu IB, Klemetti T [2021]. [Verification of 3D numerical modeling approach for longwall mines with a case study mine from the northern Appalachian coal fields](#). *Min Metall Explor* 38(1):447–456.

NIOSHTIC-2: 20061115 | NORA: Mining

Tuncay D, Tulu IB, Klemetti T [2021]. [Re-analysis of abutment angle method for moderate and deep cover retreat room and pillar mines and investigation of loading mechanics using finite volume modeling](#). *Rock Mech Rock Eng* 54(7):3447–3468.

NIOSHTIC-2: 20061885 | NORA: Mining

Van Dyke MA, Klemetti TM, Compton C [2021]. [Coal mine entry rating system: a case study](#). *Int J Min Sci Technol* 31(1):145–151.

NIOSHTIC-2: 20061928 | NORA: Mining

Van Dyke MA, Klemetti TM, Tulu IB, Tuncay D [2021]. [Moderate cover bleeder entry and standing support performance in a longwall mine: a case study](#). *Min Metall Explor* 38(2):885–896.

NIOSHTIC-2: 20061860 | NORA: Mining

Velazquez-Kronen R, Millen AE, Ochs-Balcom HM, Mnatsakanova A, Gu JK, Andrew M, Violanti J [2021]. [Sleep quality and dietary patterns in an occupational cohort of police officers](#). *Behav Sleep Med*: Epub ahead of print, 2021 July.

NIOSHTIC-2: 20063238 | NORA: Public Safety

- Verbeek JH, Rajamaki B, Ijaz S, Sauni R, Toomey E, Blackwood B, Tikka C, Ruotsalainen JH, Kilinc-Balci FS [2021]. [Equipo de protección individual para la prevención de enfermedades altamente infecciosas debidas a la exposición a fluidos corporales contaminados en el personal sanitario](#). *Emergencias* 33(1):59–61.
NIOSHTIC-2: 20061858 | NORA: Healthcare and Social Assistance / Public Safety
- Violanti JM, Gu JK, Charles LE, Fekedulegn D, Andrew ME [2021]. [Dying for the job: police mortality, 1950–2018](#). *Policing* 44(6):1168–1187.
NIOSHTIC-2: 20063756 | NORA: Public Safety
- Violanti JM, Mnatsakanova A, Gu JK, Service S, Andrew ME [2021]. [Adverse childhood experiences and police mental health](#). *Policing* 44(6):1014–1030.
NIOSHTIC-2: 20063700 | NORA: Public Safety
- Violanti JM, Steege A [2021]. [Law enforcement worker suicide: an updated national assessment](#). *Policing* 44(1):18–31.
NIOSHTIC-2: 20061429 | NORA: Construction
- Virji MA, Cummings KJ, Cox-Ganser JM [2021]. [A strategy for field evaluations of exposures and respiratory health of workers at small- to medium-sized coffee facilities](#). *Front Public Health* 9:705225.
NIOSHTIC-2: 20064149
- Virji MA, Kurth L [2021]. [Peak inhalation exposure metrics used in occupational epidemiologic and exposure studies](#). *Front Public Health* 8:611693.
NIOSHTIC-2: 20061802 | NORA: Healthcare and Social Assistance / Manufacturing
- Vo E, Rengasamy S, Xu S, Horvatin M, Zhuang Z [2021]. [New technique to evaluate decontamination methods for filtering facepiece respirators](#). *Am J Infect Control* 49(4):416–423.
NIOSHTIC-2: 20062035
- Walker RLT, Cauda E, Chubb L, Krebs P, Stach R, Mizaikoff B, Johnston C [2021]. [Complexity of respirable dust found in mining operations as characterized by X-ray diffraction and FTIR analysis](#). *Minerals* 11(4):383.
NIOSHTIC-2: 20062432 | NORA: Mining

Waltenburg MA, Rose CE, Victoroff T, Butterfield M, Dillaha JA, Heinzerling A, Chuey M, Fierro M, Jervis RH, Fedak KM, Leapley A, Gabel JA, Feldpausch A, Dunne EM, Austin C, Pedati CS, Ahmed FS, Tubach S, Rhea C, Tonzel J, Krueger A, Crum DA, Vostok J, Moore MJ, Kempfer H, Scheftel J, Turabelidze G, Stover D, Donahue M, Thomas D, Edge K, Gutierrez B, Berl E, McLafferty M, Kline KE, Martz N, Rajotte JC, Julian E, Diedhiou A, Radcliffe R, Clayton JL, Ortbahn D, Cummins J, Barbeau B, Carpenter S, Pringle JC, Murphy J, Darby B, Graff NR, Dostal TKH, Pray IW, Tillman C, Rose DA, Honein MA, CDC COVID-19 Emergency Response Team [2021]. [Coronavirus disease among workers in food processing, food manufacturing, and agriculture workplaces](#). *Emerg Infect Dis* 27(1):243–249.

NIOSH TIC-2: 20061811

Wang X, Hu YH, Lu M-L, Radwin RG [2021]. [Load asymmetry angle estimation using multiple-view videos](#). *IEEE Trans Hum-Mach Syst* 51(5):734–739.

NIOSH TIC-2: 20063955

Watkins E, Karacan CÖ, Gangrade V, Schatzel S [2021]. [Assessing gas leakage potential into coal mines from shale gas well failures: inference from field determination of strata permeability responses to longwall-induced deformations](#). *Nat Resour Res* 30(3):2347–2360.

NIOSH TIC-2: 20062389 | NORA: Mining

Weatherly LM, Shane HL, Lukomska E, Baur R, Anderson SE [2021]. [Systemic toxicity induced by topical application of heptafluorobutyric acid \(PFBA\) in a murine model](#). *Food Chem Toxicol* 156:112528.

NIOSH TIC-2: 20063484 | NORA: Healthcare and Social Assistance / Oil and Gas Extraction

Webber MP, Singh A, Zeig-Owens R, Salako J, Skerker M, Hall CB, Goldfarb DG, Jaber N, Daniels RD, Prezant DJ [2021]. [Cancer incidence in World Trade Center-exposed and non-exposed male firefighters, as compared with the U.S. adult male population: 2001–2016](#). *Occup Environ Med* 78(10):707–714.

NIOSH TIC-2: 20063478

Wei S, Johnson B, Breitenstein M, Zheng L, Snawder J, Kulkarni P [2021]. [Aerosol analysis using handheld Raman spectrometer: on-site quantification of trace crystalline silica in workplace atmospheres](#). *Ann Work Expo Health*: Epub ahead of print, 2021 October.

NIOSH TIC-2: 20063706 | NORA: Oil and Gas Extraction

Whiteman A, Wang A, McCain K, Gunnels B, Toblin R, Lee JT, Bridges C, Reynolds L, Murthy BP, Qualters J, Singleton JA, Fox K, Stokley S, Harris L, Gibbs-Scharf L, Abad N, Brookmeyer KA, Farrall S, Pingali C, Patel A, Link-Gelles R, Dasgupta S, Gharpure R, Ritchey MD, Barbour KE [2021]. [Demographic and social factors associated with COVID-19 vaccination initiation among adults aged \$\geq\$ 65 years—United States, December 14, 2020–April 10, 2021](#). *MMWR* 70(19):725–730.

NIOSHTIC-2: 20062661 | NORA: Services

Whitesell A, Bustamante ND, Stewart M, Freeman J, Dismar AM, Alarcon W, Kofman A, Ben Hamida A, Nichol ST, Damon I, Haberling DL, Keita M, Mbuyi G, Armstrong G, Juang D, Dana J, Choi MJ [2021]. [Development and implementation of the Ebola Exposure Window Calculator: a tool for Ebola virus disease outbreak field investigations](#). *PLoS One* 16(8):e0255631.

NIOSHTIC-2: 20064096

Wirth MD, Fekedulegn D, Andrew ME, McLain AC, Burch JB, Davis JE, Hébert JR, Violanti JM [2021]. [Longitudinal and cross-sectional associations between the dietary inflammatory index and objectively and subjectively measured sleep among police officers](#). *J Sleep Res*: Epub ahead of print, 2021 December.

NIOSHTIC-2: 20064308

Wong I [2021]. [Wake-up call: toward an industrial hygiene approach to work-related fatigue](#). *Synergist* 32(11):26–29.

NIOSHTIC-2: 20064145

Wong IS, Quay B, Irvin E, Belzer MH [2021]. [Describing economic benefits and costs of nonstandard work hours: a scoping review](#). *Am J Ind Med*: Epub ahead of print, 2021 October.

NIOSHTIC-2: 20063878

Wu JZ, Pan CS, Ronaghi M, Wimer BM, Reischl U [2021]. [Application of polyethylene air-bubble cushions to improve the shock absorption performance of Type I construction helmets for repeated impacts](#). *Bio-Med Mater Eng* 32(1):1–14.

NIOSHTIC-2: 20061640 | NORA: Construction / Manufacturing

Wurzelbacher SJ, Meyers AR, Lampl MP, Bushnell PT, Bertke SJ, Robins DC, Tseng C-Y, Naber SJ [2021]. [Workers' compensation claim counts and rates by injury event/exposure among state-insured private employers in Ohio, 2007–2017](#). *J Saf Res* 79:148–167.

NIOSHTIC-2: 20063710

Xu S, Simons J, Yorio P, Rottach D, Zhuang Z, Radonovich L [2021]. [Speech intelligibility test methodology applied to powered air-purifying respirators used in healthcare](#). *J Occup Environ Hyg* 18(1):28–34.

NIOSHTIC-2: 20061641 | NORA: Healthcare and Social Assistance

Xu SS, King WP, McClain C, Zhuang Z, Rottach DR [2021]. [Comparison of ISO work of breathing and NIOSH breathing resistance measurements for air-purifying respirators](#). *J Occup Environ Hyg* 18(8):369–377.

NIOSH TIC-2: 20063031 | NORA: Healthcare and Social Assistance / Public Safety

Xu XS, Welcome DE, McDowell TW, Warren C, Lin H, Xiao B, Chen Q, Dong RG [2021]. [Characterizing vibration responses of a handheld workpiece and the hand-arm system](#). *J Low Freq Noise, Vib Active Control* 40(2):802–822.

NIOSH TIC-2: 20060173 | NORA: Construction

Xu XS, Welcome DE, McDowell TW, Warren C, Service S, Lin H, Chen Q, Dong RG [2021]. [An investigation of the effectiveness of vibration-reducing gloves for controlling vibration exposures during grinding handheld workpieces](#). *Appl Ergon* 95:103454.

NIOSH TIC-2: 20062746 | NORA: Manufacturing

Young TL, Mostovenko E, Denson JL, Begay JG, Lucas SN, Herbert G, Zychowski K, Hunter R, Salazar R, Wang T, Fraser K, Erdely A, Ottens AK, Campen MJ [2021]. [Pulmonary delivery of the broad-spectrum matrix metalloproteinase inhibitor marimastat diminishes multiwalled carbon nanotube-induced circulating bioactivity without reducing pulmonary inflammation](#). *Part Fibre Toxicol* 18:34.

NIOSH TIC-2: 20063470 | NORA: Manufacturing

Zawitz C, Welbel S, Ghinai I, Mennella C, Levin R, Samala U, Smith MB, Gubser J, Jones B, Varela K, Kirbiyik U, Rafinski J, Fitzgerald A, Orris P, Bahls A, Black SR, Binder AM, Armstrong PA [2021]. [Outbreak of COVID-19 and interventions in a large jail—Cook County, IL, United States, 2020](#). *Am J Infect Control* 49(9):1129–1135.

NIOSH TIC-2: 20062525

Zhang M, Xie H, Zhou J, Sun X, Hu W, Zou H, Zhou L, Li J, Zhang M, Kardous CA, Morata TC, Murphy WJ, Zhang JH, Qiu W [2021]. [New metrics needed in the evaluation of hearing hazard associated with industrial noise exposure](#). *Ear Hear* 42(2):290–300.

NIOSH TIC-2: 20060851

Zhang P, Su D, Mark C [2021]. [The current perspective of the PA 1957 gas well pillar study and its implications for longwall gas well pillar](#). *Int J Min Sci Technol* 31(1):117–126.

NIOSH TIC-2: 20061773 | NORA: Mining / Oil and Gas Extraction

Zhou C, Damiano N [2021]. [Electromagnetic environments and wireless channels for through-the-earth \(TTE\) communications in an underground coal mine: modeling and measurements](#). *Prog Electromagn Res M* 103:91–101.

NIOSH TIC-2: 20063190 | NORA: Mining

Zhou X, Zheng L [2021]. Model-based comparison of passive and active assistance designs in an occupational upper limb exoskeleton for overhead lifting. *IIE Trans Occup Ergon Hum Factors* 9(3-4):167-185.

NIOSHIC-2: 20063176 | NORA: Healthcare and Social Assistance

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Books or Book Chapters

Burrer SL, Shugart J, Delaney LJ, Eisenberg J [2021]. [Responder safety and health](#). In: LaDou J, Harrison R, eds. *Current diagnosis & treatment: occupational & environmental medicine*, 6th ed. New York: McGraw-Hill, pp. 740–753.

NIOSH TIC-2: 20063680

Byrne DC, Michael KL [2021]. [Noise and hearing conservation](#). In: Cohns B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 3: physical and biological agents. Part V: physical agents. Hoboken, NJ: John Wiley & Sons, pp. 107–140.

NIOSH TIC-2: 20063281 | NORA: Manufacturing / Services

Chosewood LC, Tamers SL [2021]. [Advancing the well-being of workers: an introduction to Total Worker Health® approaches](#). In: Cohns B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 4: program management and specialty areas of practice. Part VIII: specialty areas. Hoboken, NJ: John Wiley & Sons, pp. 297–310.

NIOSH TIC-2: 20063256

Hearl FJ, Murashov V, Howard J, Hsiao H, Sammarco J, Lowe B, Luxbacher G [2021]. [Robotics in the workplace](#). In: Cohns B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 3: physical and biological agents. Part V: physical agents. Hoboken, NJ: John Wiley & Sons, pp. 1–15.

NIOSH TIC-2: 20061959

Howard J [2021]. [Managing workplace demographics](#). In: Cohns B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 1: hazard recognition. Part I: introduction to industrial hygiene. Hoboken, NJ: John Wiley & Sons, pp. 127–138.

NIOSH TIC-2: 20063260

Howard J, Smith S [2021]. [Occupational safety and health law](#). In: Cohns B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 2: evaluation and control. Part IV: chemical exposure control. Hoboken, NJ: John Wiley & Sons, pp. 307–356.

NIOSH TIC-2: 20063263

Laszcz-Davis C, Boelter FW, Jayjock M, Hearl F, Logan P, Ford McLaughlin C, O'Reilly MV, Radcliffe RT Jr., Stenzel M [2021]. [Health risk assessment in the workplace](#). In: Cohrssen B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 1: hazard recognition. Part I: introduction to industrial hygiene. Hoboken, NJ: John Wiley & Sons, pp. 67–101.

NIOSH TIC-2: 20063254

Lum M [2021]. [Mastering digital media for workers, employers, and our community of practice](#). In: Cohrssen B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 1: Hazard recognition. Part I: introduction to industrial hygiene. Hoboken, NJ: John Wiley & Sons, pp. 139–157.

NIOSH TIC-2: 20063239

Novakovich J, Hamilton C, Collins S, Lechlitter J [2021]. [NIOSH at 50: a special report](#). In: NIOSH bibliography of communication and research products 2020. By Lechlitter J, Novakovich J, Collins S, Hamilton C, Fendinger S, Hornback D, Bennett W, Gran M, North K, Reuss V. Cincinnati, OH: National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021–114, pp. vii–liii.

NIOSH TIC-2: 20064661

Redinger CF, Boelter FW, O'Reilly MV, Howard J, Barbi GJ [2021]. [Decision making in managing risk](#). In: Cohrssen B, ed. *Patty's industrial hygiene*, 7th ed. Vol. 1: hazard recognition. Part I: introduction to industrial hygiene. Hoboken, NJ: John Wiley & Sons, pp. 103–126.

NIOSH TIC-2: 20063253

NIOSH Numbered Products

NIOSH [2021]. [Applications manual for the revised NIOSH lifting equation](#). By Waters TR, Putz-Anderson V, Garg A. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 94-110 (Revised 09/2021).

NIOSHTIC-2: 20063303

NIOSH [2021]. [Directrices para reportar la ocupación y el tipo de industria en los certificados de defunción](#). By Robinson C, Schumacher P, Sweeney HM, Steege A, Free H, Lainez J. Cincinnati, OH: U.S. Departamento de Salud Y Servicios Humanos, Servicio de Salud Pública, Centros para el Control y la Prevención de Enfermedades, Instituto Nacional para la Seguridad y Salud Ocupacional, DHHS (NIOSH) Publicación No. 2012-149spa (revisado 01/2021).

NIOSHTIC-2: 20062920 | NORA: Construction

NIOSH [2021]. [NIOSH training for nurses on shift work and long work hours](#). By Caruso CC, Geiger-Brown J, Takahashi M, Trinkoff A, Nakata A. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2015-115 (Revised 10/2021).

NIOSHTIC-2: 20063667 | NORA: Healthcare and Social Assistance / Transportation, Warehousing and Utilities

NIOSH [2021]. [Radiation Dose Reconstruction Program](#). Program Performance One-Pagers. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2017-142 (Revised 04/2021).

NIOSHTIC-2: 20062478

NIOSH [2021]. [NIOSH Division of Safety Research](#). Fact Sheet. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2018-138.

NIOSHTIC-2: 20064093

NIOSH [2021]. [Row house firefighting tactics](#). Fact sheet. By Webb S, Loflin M, Marsh S, Kline K, Hales T, Siordia C, Dick W. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2020-117 (Revised 02/2021).

NIOSH TIC-2: 20062020 | NORA: Public Safety

NIOSH [2021]. [Row house firefighting tactics](#). Poster (16x24). By Webb S, Loflin M, Marsh S, Kline K, Hales T, Siordia C, Dick W. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2020-118b (Revised 02/2021).

NIOSH TIC-2: 20062021 | NORA: Public Safety

NIOSH [2021]. [NIOSH 50th anniversary: a history of occupational safety and health](#). Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-105.

NIOSH TIC-2: 20063310

NIOSH [2021]. [Odor fade in natural gas and propane \(superseded\)](#). By Funke J, Miles S, Loflin M. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-106.

NIOSH TIC-2: 20062182 | NORA: Public Safety

NIOSH [2021]. [NIOSH worker well-being questionnaire \(WellBQ\) \(superseded\)](#). By Chari R, Chang C-C, Sauter SL, Petrun Sayers EL, Huang W, Fisher GG. Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-110.

NIOSH TIC-2: 20062400

NIOSH [2021]. [NIOSH worker well-being questionnaire \(WellBQ\)](#). By Chari R, Chang C-C, Sauter SL, Petrun Sayers EL, Huang W, Fisher GG. Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-110 (Revised 05/2021).

NIOSH TIC-2: 20062717

NIOSH [2021]. [Current intelligence bulletin 70: health effects of occupational exposure to silver nanomaterials](#). Current Intelligence Bulletin. By Kuempel E, Roberts JR, Roth G, Dunn KL, Zumwalde R, Drew N, Hubbs A, Trout D, Holdsworth G. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-112.

NIOSH TIC-2: 20062694 | NORA: Manufacturing / Services

NIOSH [2021]. [NIOSH Disaster Science Response Research Program: COVID-19 research agenda](#). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-113.

NIOSH TIC-2: 20062298

NIOSH [2021]. [NIOSH bibliography of communication and research products 2020](#). By Lechlitter J, Novakovich J, Collins S, Hamilton C, Fendinger S, Hornback D, Bennett W, Gran M, North K, Reuss V. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-114.

NIOSH TIC-2: 20062548

NIOSH [2021]. [National Firefighter Registry: understanding & reducing cancer](#). By Fent K, Wepsala W, Siegel M, Mayer A, Wilkinson A. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-115.

NIOSH TIC-2: 20062648 | NORA: Public Safety

NIOSH [2021]. [Prescription opioid and benzodiazepine medications and occupational safety and health: information for employers and healthcare providers](#). Fact sheet. By Pandalai SP, Schulte PA, Afanuh SE. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-116.

NIOSH TIC-2: 20062628 | NORA: Construction / Manufacturing

NIOSH [2021]. [Preventing freewheeling of public safety portable radio volume-power knob](#). Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-117.

NIOSH TIC-2: 20062871 | NORA: Public Safety

NIOSH [2021]. [FAST—Field Analysis of Silica Tool software \(version 1.0.8\)](#). By Cauda E, Chubb L, Britton J, Fritz J, Cole G. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-118.

NIOSH TIC-2: 20063169 | NORA: Mining

NIOSH [2021]. [Best practices for dust control in coal mining, 2nd ed.](#) Information Circular No. 9532. By Colinet JF, Halldin CN, Schall J. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-119. **NIOSH TIC-2: 20063272** | NORA: Mining

OSHA-NIOSH [2021]. [Small business safety and health handbook.](#) Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-120. **NIOSH TIC-2: 20063177**

NIOSH [2021]. [Safe and proper use of disinfectants to reduce viral surface contamination in correctional facilities.](#) Workplace Solutions. By Hughes S, Afanuh S. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-121. **NIOSH TIC-2: 20063134**

NIOSH [2021]. [Law enforcement agencies: how to prevent motor vehicle collisions.](#) Fact sheet. By Tiesman H, Knuth R. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-122. **NIOSH TIC-2: 20063584**

NIOSH [2021]. [Understanding filtration efficiency testing and fit testing in filtering facepiece respirators \(FFRs\) \(superseded\).](#) Fact sheet. By Schall J, Coffey C. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-123. **NIOSH TIC-2: 20063409** | NORA: Healthcare and Social Assistance / Public Safety

NIOSH [2021]. [Understanding filtration efficiency testing and fit testing in filtering facepiece respirators \(FFRs\) \(superseded\).](#) Fact sheet. By Schall J, Coffey C. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-123 (Revised 09/2021). **NIOSH TIC-2: 20063534** | NORA: Healthcare and Social Assistance / Public Safety

NIOSH [2021]. [Understanding filtration efficiency testing and fit testing in filtering facepiece respirators \(FFRs\).](#) Fact sheet. By Schall J, Coffey C. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-123 (Revised 11/2021). **NIOSH TIC-2: 20063884** | NORA: Healthcare and Social Assistance / Public Safety

NIOSH [2021]. [How to tell if your N95 respirator is NIOSH approved](#). Fact sheet. By Cichowicz J, Andrews A, Fries M. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2021-124.

NIOSH TIC-2: 20063405 | NORA: Healthcare and Social Assistance / Public Safety

NIOSH [2021]. [Conducting a daily inspection of powered industrial trucks \(forklift, narrow-aisle reach truck, walkie pallet lift, and tow tractor/tug\)](#). Workplace Solutions. By Hughes S, Bobick T, Afanuh S. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-100.

NIOSH TIC-2: 20063813

NIOSH [2021]. [A guide to the collection of occupational data for health: tips for health IT system developers](#). Technical report. By Wallace B, Luensman GB, Storey E, Brewer L. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-101.

NIOSH TIC-2: 20063844

NIOSH [2021]. Respiratory protection toolbox talk (superseded). Fact sheet. By Kiederer M, Smith A, Coffey C. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-102.

NIOSH TIC-2: 20064122 | NORA: Healthcare and Social Assistance / Public Safety

NIOSH [2021]. [What employers need to know about histoplasmosis](#). Fact sheet. By de Perio M, Benedict K, Kirby E, Lybrand E, Di Giuseppe M, Coffey C. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-103.

NIOSH TIC-2: 20064117

NIOSH [2021]. [What workers should know about histoplasmosis](#). Fact sheet. By de Perio M, Benedict K, Kirby E, Lybrand E, Di Giuseppe M, Coffey C. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-104.

NIOSH TIC-2: 20064120

NIOSH [2021]. [The NIOSH Future of Work Initiative Research Agenda](#). By Tamers S, Pana-Cryan R, Ruff T, Streit J, Flynn M, Childress A, Chang C-C, Novicki E, Ray T, Fosbroke D, Geraci C. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-105.

NIOSHTIC-2: 20064242

NIOSH [2021]. [Conducting a periodic inspection for each procedure in a hazardous energy control \(lockout/tagout\) program](#). Workplace Solutions. By Hughes S, Funke J, Afanuh S. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-106.

NIOSHTIC-2: 20064230

NIOSH [2021]. [Simple solutions for dusty environments at metal/nonmetal mines: reducing dust exposures while improving ergonomics](#). By Patts JR, Pollard JP, Cecala AB, Dempsey PG, Louk AK, Schall J. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2022-107.

NIOSHTIC-2: 20064161 | NORA: Mining

NIOSH [2021]. [Evaluation of fit and strap extension performance of stockpiled filtering facepiece respirators from one U.S. facility](#). PPE CASE. By Greenawald LA, Moore SM, Yorio PL. Pittsburgh, PA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NPPTL Report No. P2021-0102, 2021.

NIOSHTIC-2: 20064751

NIOSH [2021]. [Evaluation of a self-contained breathing apparatus involved in a fatality while operating at a structure fire: Watertown Fire Department request for a MSA model G1, 45 minute, 4500 psi unit](#). PPE CASE. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NPPTL Report No. TN-24882.

NIOSHTIC-2: 20064753

NIOSH [2021]. [Evaluation of a self-contained breathing apparatus involved in a fatality while operating at a structure fire: Division of Safety Research requested the evaluation of a Scott® Safety Air-Pak® Model X3](#). PPE CASE. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NPPTL Report No. TN-25250.

NIOSHTIC-2: 20064752

Miscellaneous Unnumbered Communication Products

NIOSH [2021]. [Addressing opioid overdose deaths in the workplace](#). Video. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20062328

NIOSH [2021]. [FACE IT: Worker safety matters during lawn care](#). Infographic. By Socias C. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20064707

NIOSH [2021]. [National Firefighter Registry](#). Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20063152 | NORA: Public Safety

NIOSH [2021]. [Opioids in the construction industry—Part 1: The evolution of a crisis](#). Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20063381

NIOSH [2021]. [Opioids in construction—Part 2: Impacting lives](#). Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20063382

NIOSH [2021]. [Opioids in construction—Part 3: Pathways to recovery](#). Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20063383

NIOSH [2021]. [Oregon FACE: protecting our workers](#). Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20063224

NIOSH [2021]. [Workplace Supported Recovery](#). Video. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSH TIC-2: 20063153

NIOSH [2021]. [True fall stories: changing old behaviors!](#) Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSHTIC-2: 20063218

NIOSH [2021]. [True fall stories: saving lives!](#) Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSHTIC-2: 20063222

NIOSH [2021]. [True fall stories: the impact on lives!](#) Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSHTIC-2: 20063223

NIOSH [2021]. [Washington FACE: protecting our workers.](#) Video. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

NIOSHTIC-2: 20063225

World Trade Center Health Program [2021]. [Scientific considerations for potential addition of uterine cancer to the list of covered conditions by the World Trade Center Health Program.](#) Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, 32 pages.

NIOSHTIC-2: 20064663

World Trade Center Health Program [2021]. [Scientific considerations for potential addition of uterine cancer to the list of covered conditions by the World Trade Center Health Program \(revised\).](#) Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, 36 pages.

NIOSHTIC-2: 20064662

Proceedings

Ajayi KM, Khademian Z, Schatzel SJ, Watkins E, Gangrade V [2021]. [Numerical modeling of longwall-induced permeability under shallow cover](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 389–397.

NIOSH TIC-2: 20063604 | NORA: Mining

Ajayi KM, Perera IE [2021]. Dispersion characteristics of coal and rock dust mixtures in dry and wet conditions. Preprint 21-027. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 6 pages.

NIOSH TIC-2: 20063503

Ajayi KM, Perera IE [2021]. [Dispersion characteristics of coal and rock dust mixtures in dry and wet conditions](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 140–145.

NIOSH TIC-2: 20063480

Batchler TJ, Tulu IB, Matthews TJ, Zhao H [2021]. Evaluation of standing supports for longwall tailgate entry using NIOSH Support Technology Optimization Program (STOP). Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration (SME), 8 pages.

NIOSH TIC-2: 20064713

Bahrami D, Zhou L, Xue Y, Yuan L [2021]. [Application of machine learning to determine underground hazard location](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 401–409.

NIOSH TIC-2: 20063605 | NORA: Mining

Boltz MS, Chambers DJA, Dehn K, Benton DJ, Warren S [2021]. Technologies and practices for remotely monitoring ground stability in U.S. underground metal mines. Preprint 21-013. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 8 pages.

NIOSHTIC-2: 20063510

Boltz MS, Chambers DJA, Dehn K, Benton DJ, Warren S [2021]. [Technologies and practices for remotely monitoring ground stability in U.S. underground metal mines](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 55–62.

NIOSHTIC-2: 20063490

Bugarski AD, Vanderslice S, Hummer JA, Barone TL, Mischler SE, Peters S, Cochrane S, Winkler J [2021]. [Diesel aerosols in an underground coal mine](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 95–104.

NIOSHTIC-2: 20063573 | NORA: Mining

DeGennaro C, Yan L, Yantek D [2021]. [Fresh air flow required to maintain safe carbon dioxide levels and provide a breathable air environment in a refuge alternative](#). Paper No. IMECE2021-68680, V013T014A013. Proceedings of the ASME 2021 International Mechanical Engineering Congress and Exposition (IMECE2021), November 1–5, 2021, virtual event. Vol. 13: Safety Engineering, Risk, and Reliability Analysis. New York, NY: The American Society of Mechanical Engineers.

NIOSHTIC-2: 20064621

Drury CG, Dempsey PG [2021]. [EHF audits: state of the art and lessons learned](#). In: Black NL, Neumann WP, Noy I, eds. Proceedings of the 21st Congress of the International Ergonomics Association (IEA 2021), June 13–18, 2021, virtual event. Volume I: systems and macroergonomics. Lecture Notes in Networks and Systems, Vol. 219. Cham, Switzerland: Springer, pp. 339–345.

NIOSHTIC-2: 20062841

Girman M, Reyes M, Zhou C [2021]. An overview of existing EMI standards applicable to mining. Preprint 21-017. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 6 pages.

NIOSHTIC-2: 20063505 | NORA: Mining

Girman M, Reyes M, Zhou C [2021]. [An overview of existing EMI standards applicable to mining](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 80–85.

NIOSH TIC-2: 20063482 | NORA: Mining

Haas EJ, Wickizer J, Manley T [2021]. Applying smart principles to improve supervisor communication as a leading indicator of OSH. Preprint 21-011. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 8 pages.

NIOSH TIC-2: 20063506 | NORA: Mining

Haas EJ, Wickizer J, Manley T [2021]. [Applying smart principles to improve supervisor communication as a leading indicator of OSH](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 43–50.

NIOSH TIC-2: 20063485 | NORA: Mining

Habibi A, Bugarski AD, Loring D, Cable A, Ingalls L, Rutter C [2021]. [Evaluation of methodology for realtime monitoring of diesel particulate matter in underground mines](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 115–123.

NIOSH TIC-2: 20063587 | NORA: Mining

Harris ML, Klima S, Brown CB, Perera IE, Addis JA, Chasko LL, Myers J [2021]. [Anti-caking treated rock dust and its effect on downwind respirable dust measurements](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 317–325.

NIOSH TIC-2: 20063600

Homer J, Damiano N, Jobes C, Reyes M, Carr J [2021]. Prioritizing electromagnetic interference testing of devices used in underground coal mines. Preprint 21-015. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 7 pages.

NIOSH TIC-2: 20063509 | NORA: Mining

Homer J, Damiano N, Jobes C, Reyes M, Carr J [2021]. [Prioritizing electromagnetic interference testing of devices used in underground coal mines](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 69–75.

NIOSH TIC-2: 20063489 | NORA: Mining

Jiang H, Luo Y [2021]. [A comprehensive roof bolter drilling control algorithm for enhancing energy efficiency and reducing respirable dust](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 208–217.

NIOSHTIC-2: [20063592](#) | NORA: Mining

Khademian Z, Ajayi KM, Su DWH, Esterhuizen G, Schatzel SJ [2021]. Geomechanical modeling of mining-induced permeability: implications for potential gas inflow from a sheared gas well. Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration, 10 pages.

NIOSHTIC-2: [20064712](#)

Kim B-H, Larson MK [2021]. [Numerical assessment of the anisotropic strengths of a Utah coal considering the spatial characteristics of discontinuities using discrete fracture networks](#). Paper No. ARMA-2021-0016. 55th U.S. Rock Mechanics/Geomechanics Symposium, June 18–25, 2021, Houston, Texas, virtual event. Alexandria, VA: American Rock Mechanics Association.

NIOSHTIC-2: [20062913](#) | NORA: Mining

Kim H, Larson MK [2021]. Assessment of floor heave associated with bumps in a longwall mine using the discrete element method. Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration, 9 pages.

NIOSHTIC-2: [20064697](#)

Larsen M, Whitson A, Pollard J, Nasarwanji M [2021]. [Analysis of shoulder sprains and strains in mining](#). Proceedings of the Human Factors and Ergonomics Society 65th Annual Meeting, October 25–27, 2021, virtual event. Thousand Oaks, CA: Sage Journals, pp. 1371–1375.

NIOSHTIC-2: [20064665](#) | NORA: Mining

Lawson H, Hanson D [2021]. The influence of depositional environment on dynamic failure potential in U.S. coal seams. Preprint 21-024. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 10 pages.

NIOSHTIC-2: [20063504](#)

Lawson H, Hanson D [2021]. [The influence of depositional environment on dynamic failure potential in U.S. coal seams](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 117–126.

NIOSHTIC-2: [20063481](#)

Lawson H, Mastalerz M, Hanson D [2021]. Dynamic failure classification within the context of regional geology: a case study from the Uinta and Piceance basins. Preprint 21-025. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 9 pages.

NIOSHTIC-2: 20063511

Lawson H, Mastalerz M, Hanson D [2021]. [Dynamic failure classification within the context of regional geology: a case study from the Uinta and Piceance basins](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 127–135.

NIOSHTIC-2: 20063491

Maiti CJ, Ghia U, Turkevich LA [2021]. [RANS-VOF simulations of fully developed density-stratified air-water flow in a 3D rectangular duct](#). Paper No. FEDSM2021-65177, V003T008A010. ASME 2021 Fluids Engineering Division Summer Meeting, August 10–12, 2021, virtual event. New York, NY: American Society of Mechanical Engineers.

NIOSHTIC-2: 20063754 | NORA: Manufacturing

Miano J, Hilton C, Gangrade V, Pomeroy M, Siven J, Flynn M, Tilashalski F [2021]. [Using event-based web-scraping methods and bidirectional transformers to characterize COVID-19 outbreaks in food production and retail settings](#). In: Tucker A, Henriques Abreu P, Cardoso J, Pereira Rodrigues P, Riaño D, eds. Artificial Intelligence in Medicine: 19th International Conference on Artificial Intelligence in Medicine, AIME 2021, June 15–18, 2021, virtual event. Lecture notes in computer science. Vol. 12721. Cham, Switzerland: Springer, pp. 187–198.

NIOSHTIC-2: 20063307

Mohamed K, Batchler T [2021]. Analysis of steel prop supports subjected to vertical and lateral loading. Preprint 21-005. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 6 pages.

NIOSHTIC-2: 20063508 | NORA: Mining

Mohamed K, Batchler T [2021]. [Analysis of steel prop supports subjected to vertical and lateral loading](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 14–19.

NIOSHTIC-2: 20063488 | NORA: Mining

Mohamed K, Xue Y, Rashed G, Kimutis R [2021]. Analyzing rib stability and support using a coal pillar rib rating. Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration (SME), 10 pages.

NIOSHTIC-2: 20064714

Larsen M, Whitson A, Pollard J, Nasarwanji M [2021]. [Analysis of shoulder sprains and strains in mining](#). Proceedings of the Human Factors and Ergonomics Society 65th Annual Meeting, October 25–27, 2021, virtual event. Santa Monica, CA: Human Factors and Ergonomics Society, 65(1):1371–1375.

NIOSHTIC-2: 20064665

Murphy W [2021]. [Reducing employee noise exposure in manufacturing: a review of the 2014 workshop](#). Abstracts from the Inter-Noise 2021 Proceedings: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, p. 128.

NIOSHTIC-2: 20063874

Murphy W [2021]. [Reducing employee noise exposure in manufacturing: a review of the 2014 workshop](#). Inter-Noise 2021: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, pp. 5272–5282.

NIOSHTIC-2: 20063879

Murphy W, Qiu W, Zhang M [2021]. [Evaluating worker noise exposure levels in the presence of complex noise](#). Abstracts from the Inter-Noise 2021 Proceedings: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, p. 119.

NIOSHTIC-2: 20063877

Murphy W, Qiu W, Zhang M [2021]. [Evaluating worker noise exposure levels in the presence of complex noise](#). Inter-Noise 2021: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, pp. 1733–1743.

NIOSHTIC-2: 20063882

Noll JD, Reed WR, Potts JD, Shahan MR [2021]. [Design and characterization of canopy air curtain for protecting against diesel particulate matter exposures in underground mines](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 444–454.

NIOSHTIC-2: 20063608 | NORA: Mining

Parks D, Nickerson H, Frazier J, Raj V, Sunderman C, Rola M, Johnson K, Miller A [2021]. [A smarter lock: applying recent and emerging technology to improve lockout/tagout](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 263–267.

NIOSH TIC-2: 20063514 | NORA: Mining

Parks D, Nickerson H, Frazier J, Raj V, Sunderman C, Rola M, Johnson K, Miller A [2021]. [A smarter lock: applying recent and emerging technology to improve lockout/tagout](#). Preprint 21-055. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 5 pages.

NIOSH TIC-2: 20062708 | NORA: Mining

Rashed G, Slaker B, Murphy M [2021]. [Exploration of limestone pillar stability in multiple-level mining conditions using numerical models](#). Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration (SME), 11 pages.

NIOSH TIC-2: 20064711

Reed WR, Colinet JF, Klima SS, Mazzella A, Ross G, Workman M, Morson T, Driscoll J [2021]. [Field test of a canopy air curtain on a ramcar for dust control in an underground coal mine](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 29–35.

NIOSH TIC-2: 20063493 | NORA: Mining

Reed WR, Colinet JF, Klima SS, Mazzella A, Ross G, Workman M, Morson T, Driscoll J [2021]. [Field test of a canopy air curtain on a ramcar for dust control in an underground coal mine](#). Preprint 21-009. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 7 pages.

NIOSH TIC-2: 20063512 | NORA: Mining

Reed WR, Klima SS, Mazzella A, Ross G, Roberts G, Deluzio J [2021]. [A second case study of field test results for comparison of roof bolter dry collection system with wet collection system](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 24–28.

NIOSH TIC-2: 20063494 | NORA: Mining

Reed WR, Klima SS, Mazzella A, Ross G, Roberts G, Deluzio J [2021]. A second case study of field test results for comparison of roof bolter dry collection system with wet collection system. Preprint 21-008. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 5 pages.
NIOSH TIC-2: 20063513 | NORA: Mining

Su DWH, Zhang P [2021]. [Engineering guidelines for shale gas wells influenced by longwall mining](#). Paper No. ARMA-2021-1246. 55th U.S. Rock Mechanics/Geomechanics Symposium, June 18–25, 2021, Houston, Texas, virtual event. Alexandria, VA: American Rock Mechanics Association.
NIOSH TIC-2: 20064416

Su DWH, Zhang P, Dougherty H, Van Dyke M, Kimutis R [2021]. Shale gas well stability under the influence of underground longwall coal mining. Preprint 21-014. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 6 pages.
NIOSH TIC-2: 20063502

Su DWH, Zhang P, Dougherty H, Van Dyke M [2021]. Acquisition and interpretation of critical scientific data for shale gas wells influenced by longwall mining. Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration (SME) 9 pages.
NIOSH TIC-2: 20064715

Su DWH, Zhang P, Dougherty H, Van Dyke M, Kimutis R [2021]. [Shale gas well stability under the influence of underground longwall coal mining](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 63–68.
NIOSH TIC-2: 20063476

Tang W, Yuan L, Bahrami D, Rowland J [2021]. [Water spray suppression of leaked oil fires: a numerical study](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 309–316.
NIOSH TIC-2: 20063599 | NORA: Mining

Wang L, Beamer B, Moore KJ, Krainc K [2021]. [Case study—lesson plan for noise control engineering concepts for use in ABET accredited engineering programs](#). Abstracts from the Inter-Noise 2021 Proceedings: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, pp. 75–76.
NIOSH TIC-2: 20063913

Wang L, Beamer B, Moore KJ, Krainc K [2021]. [Case study—lesson plan for noise control engineering concepts for use in ABET accredited engineering programs](#). Inter-Noise 2021: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, pp. 907–912.

NIOSH TIC-2: 20063912

Wu JZ, Pan CS, Cobb C, Moorehead A, Wimer BM [2021]. [Effects of proper helmet wearing on the protection performance for industrial helmets](#). Proceedings of the XXXIIIrd Annual International Occupational Ergonomics and Safety Conference, September 16–17, 2021, virtual event. Amsterdam: International Society for Occupational Ergonomics and Safety (ISOES), pp. 121–125.

NIOSH TIC-2: 20064521 | NORA: Construction

Xu S, Hu M, Powell J, Zhuang Z [2021]. [Comfortable SCBA weights from biomechanical models for firefighting tasks](#). In: Wright JL, Barber D, Scataglini S, Rajulu SL, eds. Advances in simulation and digital human modeling: proceedings of the AHFE 2021 Virtual Conferences on Human Factors and Simulation, and Digital Human Modeling and Applied Optimization, July 25–29, 2021, virtual event. Lecture Notes in Networks and Systems, Vol. 264. Cham, Switzerland: Springer Publishing, pp. 231–238.

NIOSH TIC-2: 20063276 | NORA: Healthcare and Social Assistance / Public Safety

Xue Y, Mohamed K [2021]. Investigating the factors affecting the stability of coal ribs with in-seam rock partings through numerical simulations. Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration, Inc. (SME), 10 pages.

NIOSH TIC-2: 20064705

Xue Y, Mohamed KM [2021]. [Stability analysis of coal rib with rock parting based on the strength reduction of the coal mass model](#). Paper No. ARMA-2021-1120. 55th U.S. Rock Mechanics/Geomechanics Symposium, June 18–25, 2021, Houston, Texas, virtual event. Alexandria, VA: American Rock Mechanics Association.

NIOSH TIC-2: 20064462

Yan L, Fernando RD, Yantek DS, Carr JL, Reyes MA, DeGennaro CR, Yonkey JA, Srednicki JR [2021]. [Storage time and venting characteristics for cryogenic air supplies on cryocooler shutdown](#). In: Ross RG Jr., Raab JR, Miller SD, eds. Cryocoolers 21: proceedings of the 21st International Cryocooler Conference, December 7–10, 2020, virtual event. Boulder, CO: ICC Press, pp. 85–95.

NIOSH TIC-2: 20062714 | NORA: Mining

Yan L, Yantek DS, DeGennaro CR, Fernando RD [2021]. [Mathematical modeling for carbon dioxide level within confined spaces](#). Paper No. IMECE2021-68452, V013T014A012. Proceedings of the ASME 2021 International Mechanical Engineering Congress and Exposition (IMECE2021), November 1–5, 2021, virtual event. Vol. 13: Safety engineering, risk, and reliability analysis. New York, NY: The American Society of Mechanical Engineers.

NIOSHTIC-2: 20064623

Zechmann E [2021]. [“Buy Quiet” with the added benefit of considering all safety, health, and cost factors](#). Abstracts from the Inter-Noise 2021 Proceedings: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, p. 47.

NIOSHTIC-2: 20063876

Zechmann E [2021]. [“Buy Quiet” with the added benefit of considering all safety, health, and cost factors](#). Inter-Noise 2021: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, pp. 2830–2841.

NIOSHTIC-2: 20063881

Zechmann E [2021]. [Sound power and sound energy measurements using an ellipsoidal measurement surface](#). Abstracts from the Inter-Noise 2021 Proceedings: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, p. 14.

NIOSHTIC-2: 20063875

Zechmann E [2021]. [Sound power and sound energy measurements using an ellipsoidal measurement surface](#). Inter-Noise 2021: Next 50 Years of Noise Control, the 50th International Congress and Exposition on Noise Control Engineering, August 1–5, 2021, virtual event. Washington, DC: Institute of Noise Control Engineering, pp. 2863–2874.

NIOSHTIC-2: 20063880

Zhang P, Esterhuizen E, Sears M, Trackemas J, Minoski T, Hlopick N [2021]. Roof stability and support strategies associated with longwall-induced horizontal stress changes in belt entries. Proceedings of the 40th International Conference on Ground Control in Mining (ICGCM 2021), July 27–28, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy & Exploration, Inc. (SME), 13 pages.

NIOSHTIC-2: 20064704

Zhang P, Su D [2021]. [FLAC3D modeling evaluation of the comprehensive NV-35 gas well pillar study](#). Paper No. ARMA–2021–1193. 55th U.S. Rock Mechanics/Geomechanics Symposium, June 18–25, 2021, Houston, Texas, virtual event. Alexandria, VA: American Rock Mechanics Association.

NIOSHTIC-2: 20064500

Zheng Y, Reed WR, Potts JD [2021]. [Effects of different shapes of drill shroud on dust control for surface mine drilling operation](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 225–232.

NIOSHTIC-2: 20063594 | NORA: Mining

Zhivov AM, Rose WB, Patenaude RE, Williams WJ [2021]. [Requirements for building thermal conditions under emergency operations in cold climates](#). Article No. 08003. E3S Web of Conferences. Vol. 246. Cold Climate HVAC & Energy 2021, the 10th International SCANVAC Cold Climate Conference, April 18–21, 2021, Tallinn, Estonia. Les Ulis, France: EDP Sciences, 7 pages.

NIOSHTIC-2: 20062479

Zhou C, Damiano N [2021]. [Wireless channel and electromagnetic environments for through-the-earth \(TTE\) communications in an underground coal mine](#). 2021 IEEE Radio and Wireless Symposium (RWS), January 17–22, 2021, virtual event. New York, NY: Institute of Electrical and Electronics Engineers (IEEE), pp. 158–160.

NIOSHTIC-2: 20062257 | NORA: Mining

Zhou C, Reyes M, Girman M [2021]. [Electromagnetic interference \(EMI\) in underground coal mines: a literature review and practical considerations](#). Preprint 21-010. MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Englewood, CO: Society for Mining, Metallurgy and Exploration (SME), 7 pages.

NIOSHTIC-2: 20063507 | NORA: Mining

Zhou C, Reyes M, Girman M [2021]. [Electromagnetic interference \(EMI\) in underground coal mines: a literature review and practical considerations](#). MineXchange: 2021 SME Annual Conference and Expo and CMA 123rd National Western Mining Conference, March 1–5, 2021, virtual event. Red Hook, NY: Curran Associates, pp. 36–42.

NIOSHTIC-2: 20063487 | NORA: Mining

Zhou L, Thomas RA, Yuan L, Bahrami D [2021]. [Improving calibration of a mine ventilation network using continuous airflow monitoring](#). In: Tukkaraja P, ed. Mine ventilation: proceedings of the 18th North American Mine Ventilation Symposium (NAMVS 2021), June 12–17, 2021, Rapid City, South Dakota. London: CRC Press, pp. 518–528.

NIOSHTIC-2: 20063610 | NORA: Mining

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Abstracts

Bahrami D, Zhou L, Yuan L [2021]. [Field verification of an improved mine fire location model](#). Abstract. *Min Eng* 73(5):69–71.

NIOSH TIC-2: 20063179 | NORA: Mining

Baur R, Lukomska E, Shane H, Weatherly L, Anderson S [2021]. [Investigating the impact of dermal triclosan exposure on the skin barrier integrity](#). Abstract. *Toxicologist* 180(S1):167.

NIOSH TIC-2: 20062267 | NORA: Healthcare and Social Assistance / Oil and Gas Extraction

Boyce G, Shoeb M, Kodali V, Meighan TG, Roach KA, McKinney W, Stone S, Powell MJ, Roberts JR, Zeidler-Erdely PC, Erdely A, Antonini JM [2021]. [Welding fume inhalation exposure and high-fat diet change lipid homeostasis in rat liver](#). Abstract. *Toxicologist* 180(S1):109.

NIOSH TIC-2: 20062262 | NORA: Manufacturing

Ceballos D, Labrèche F, Côté D, Herrick R, Bakhiyi B, Gravel S, Flynn M, Zayed J [2021]. [Overlapping vulnerabilities in workers of the electronics recycling industry formal sector](#). Abstract. *Occup Environ Med* 78(Suppl 1):A134.

NIOSH TIC-2: 20064334

Colinet JF [2021]. [The impact of black lung and a methodology for controlling respirable dust](#). Abstract. *Min Eng* 73(3):44–46.

NIOSH TIC-2: 20062789 | NORA: Mining

Croston T [2021]. [Fungal exposures within the indoor environment](#). Abstract. *Toxicologist* 180(S1):30–31.

NIOSH TIC-2: 20062261

Dubaniewicz TH, Zlochower I, Barone T, Thomas R, Yuan L [2021]. [Thermal-runaway pressures of iron phosphate lithium-ion cells as a function of free space within sealed enclosures](#). Abstract. *Min Eng* 73(8):37–39.

NIOSH TIC-2: 20064129 | NORA: Mining

Dunbar AL, Ladd TB, Johnson JA Jr., Mumaw CL, Greve HJ, Xuei X, Simpson E, Barnes MA, Green BJ, Croston TL, Beezhold DH, Block ML [2021]. [Aspergillus versicolor inhalation dysregulates neuroimmune homeostasis and augments Alzheimer's disease-like neuropathology](#). Abstract. *Toxicologist* 180(S1):231.

NIOSH TIC-2: 20062276

Esterhuizen GS, Klemetti T, Sears MM, Zhang P, van Dyke M, Dougherty H, Tulu IB [2021]. [Assessing longwall gateroad ground response and support alternatives](#). Abstract. *Min Eng* 73(11):41–43.

NIOSH TIC-2: 20064221 | NORA: Mining

Evanek N, Iannacchione A, Miller T [2021]. [Controlling crosscut damage in response to excessive levels of horizontal stress: case study at the Subtropolis Mine, Petersburg, OH](#). Abstract. *Min Eng* 73(9):67–69.

NIOSH TIC-2: 20064132 | NORA: Mining

Farcas MT, McKinney W, Mandler KW, Stefaniak AB, Kashon M, Battelli L, Orandle M, Winn A, Friend SA, Qi C, Hammond DR, Lebouf RF, Jackson M, Russ KA, Burns D, Ranpara A, Thomas TA, Matheson J, Qian Y [2021]. [Inhalation exposure of acrylonitrile butadiene styrene filament 3D printer emissions induces pulmonary and systemic toxicity in rats](#). Abstract. *Toxicologist* 180(S1):276.

NIOSH TIC-2: 20062272 | NORA: Manufacturing

Haas EJ, Yorio PL, Hoebbel CL [2021]. [Exploring the differences in safety climate among mining sectors](#). Abstract. *Min Eng* 73(6):52–53.

NIOSH TIC-2: 20063182 | NORA: Mining

Hrica JK, Eiter BM [2021]. [Competencies for the competent person: defining workplace examiner competencies from the health and safety leader's perspective](#). Abstract. *Min Eng* 73(5):67–69.

NIOSH TIC-2: 20063178

Imam SZ, He Z, Rogstad S, Burks SM, Raymick J, Hanig JP, Herr DW, Liachenko S, O'Callaghan JP, Somps C, Pardo ID, Pierson J, Roberts R, Aschner M, Paule MG, Slikker W Jr. [2021]. [CSF proteome as fluidic biomarkers of neurotoxicity](#). Abstract. *Toxicologist* 180(S1):187.

NIOSH TIC-2: 20062269 | NORA: Manufacturing

Jacksha R, Raj KV [2021]. [Assessing the feasibility of a commercially available wireless Internet of Things system to improve conveyor safety](#). Abstract. *Min Eng* 73(2):37–38.

NIOSH TIC-2: 20062654 | NORA: Mining

Kelly KA, Michalovicz LT, Fornal CA, Jones J, Miller DB, O'Callaghan JP, Lasley SM [2021]. [Gulf War-relevant organophosphate exposure results in changes in memory and neural plasticity](#). Abstract. *Toxicologist* 180(S1):185.

NIOSH TIC-2: 20062268

Michalovicz LT, Kelly KA, Miller DB, Lasley SM, O'Callaghan JP [2021]. [Prior exposure to stress hormone exacerbates the neuroinflammatory response to the nerve agent sarin and pesticide dichlorvos in a mouse model of Gulf War Illness](#). Abstract. *Toxicologist* 180(S1):312.

NIOSH TIC-2: 20062271

Morata TC [2021]. [Expanding communication of acoustical knowledge around the globe: examples of outreach and the use of social media](#). Abstract. *J Acoust Soc Am* 149(4):A124.

NIOSH TIC-2: 20063270 | NORA: Manufacturing / Construction

Rashed G, Slaker B, Sears MM, Murphy MM [2021]. [A parametric study for the effect of dip on stone mine pillar stability using a simplified model geometry](#). Abstract. *Min Eng* 73(8):43–45.

NIOSH TIC-2: 20064131 | NORA: Mining

Sears MM, Slaker B, Rashed G, Miller J [2021]. [Analysis of the impacts of mining sequence and overburden depth on stability at a dipping limestone mine](#). Abstract. *Min Eng* 73(7):107–109.

NIOSH TIC-2: 20064128 | NORA: Mining

Shoeb M, Mustafa GM, Kodali VK, Fraser K, Roach KA, Boyce G, Meighan T, Roberts JR, Erdely A, Antonini JM [2021]. [Evaluation of telomere length and markers of neurodegeneration after welding fume exposure](#). Abstract. *Toxicologist* 180(S1):269–270.

NIOSH TIC-2: 20062274 | NORA: Construction

Slaker B, Murphy M, Rashed G, Gangrade V, Van Dyke M, Minoski T, Floyd K [2021]. [Monitoring of multiple-level stress interaction at two underground limestone mines](#). Abstract. *Min Eng* 73(8):41–42.

NIOSH TIC-2: 20064130 | NORA: Mining

Stueckle TA, Coyle J, Shane H, Jensen J, Roach K, Johnson C, Derk R, Battelli L, Friend S, Orandle M, Agarwal S, Gupta RK, Dinu CZ, Lee EG, Rojanasakul L [2021]. [Pulmonary inflammation response comparison of nano-clay to machined dusts of nano-clay-enabled composite](#). Abstract. *Toxicologist* 180(S1):116.

NIOSH TIC-2: 20062266 | NORA: Manufacturing

Thompson JA, Krajnak K, Johnston RA, Kashon M, McKinney W, Fedan JS [2021]. [Western diet alters blood flow and exacerbates silica-induced lung inflammation in the F344 rat](#). Abstract. *Toxicologist* 180(S1):274.

NIOSH TIC-2: 20062273 | NORA: Construction / Mining

Van Dyke MA, Klemetti TM, Tulu IB, Tuncay D [2021]. [Moderate cover bleeder entry and standing support performance in a longwall mine—a case study](#). Abstract. *Min Eng* 73(6):46–48.

NIOSH TIC-2: 20063180 | NORA: Mining

Zheng Y, Reed WR [2021]. [Effects of roof bolter canopy air curtain on airflow and dust dispersion in an entry using exhaust curtain ventilation](#). Abstract. *Min Eng* 73(4):41–42.

NIOSH TIC-2: 20062791 | NORA: Mining

Zhou L, Yuan L, Thomas R, Bahrami D, Rowland J [2021]. [An improved method to calculate the heat release rate of a mine fire in underground mines](#). Abstract. *Min Eng* 73(1):48–49.

NIOSH TIC-2: 20062306 | NORA: Mining

Control Technology Reports

NIOSH [2021]. [In-depth survey report: engineering control evaluation at veterinary hospital B](#). By Hirst DVL, Mead KR, Pretty J. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-380-12a (Revised 06/2021).

NIOSHTIC-2: 20062946

NIOSH [2021]. [In-depth survey report: engineering control evaluation at veterinary hospital E](#). By Hirst DVL, Mead KR, Pretty J. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-380-15a (Revised 06/2021).

NIOSHTIC-2: 20062947

NIOSH [2021]. [Comprehensive report: engineering control of silica dust from stone countertop fabrication and installation—evaluation of wetting methods for grinding](#). By Qi C, Echt A. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-2021-DFSE-710.

NIOSHTIC-2: 20062944 | NORA: Construction / Manufacturing

NIOSH [2021]. [In-depth survey report: removing mortar by wet grinders and powered chisels with on-tool local exhaust ventilation](#). By Qi C. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-2022-DFSE-820.

NIOSHTIC-2: 20063863 | NORA: Construction

NIOSH [2021]. [In-depth survey report: engineering control evaluation at veterinary hospital C](#). By Hirst DVL, Mead KR, Pretty J. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-DART-18-74 (Revised 06/2021).

NIOSHTIC-2: 20062949

NIOSH [2021]. [In-depth survey report: engineering control evaluation at veterinary hospital D](#). By Hirst DVL, Mead KR, Pretty J. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-DART-18-75 (Revised 06/2021).

NIOSHTIC-2: 20062948

NIOSH [2021]. [In-depth survey report: engineering control evaluation at veterinary hospital G](#). By Hirst DVL, Mead KR, Pretty J. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-DART-18-181 (Revised 06/2021).

NIOSHTIC-2: 20062950

NIOSH [2021]. [In-depth survey report: engineering control evaluation at veterinary hospital F](#). By Hirst DVL, Mead KR, Pretty J. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Control Technology Report No. EPHB-DART-19-74 (Revised 06/2021).

NIOSHTIC-2: 20062951

Fatality Assessment and Control Evaluation Reports

NIOSH [2021]. [City electric maintenance worker electrocuted while installing lines for security cameras—Ohio](#). Fatality Assessment and Control Evaluation. By Lincoln JE, Stefanick ML, Romano N. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fatality Assessment and Control Evaluation (FACE) Report No. FACE-2019-01.

NIOSHTIC-2: 20063395

NIOSH [2021]. [FACE-IT: FACE Report Visual Extension. City electric maintenance worker electrocuted while installing lines for security cameras—Ohio](#). Fatality Assessment and Control Evaluation. By Lincoln JE, Stefanick ML, Romano N. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fatality Assessment and Control Evaluation (FACE) Report No. FACE-2019-01.

NIOSHTIC-2: 20063396

NIOSH [2021]. [Line of Duty Death Report Visual Extension: career lieutenant killed in building collapse while fighting row house fire—Pennsylvania](#). Fatality Assessment and Control Evaluation. By Miles ST, Bowyer M. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fatality Assessment and Control Evaluation (FACE) Report No. FACE-F2018-03 PA.

NIOSHTIC-2: 20063286 | NORA: Public Safety

NIOSH [2021]. [Line of Duty Death Report Visual Extension: Career firefighter/SCUBA diver drowns while searching for civilian in an industrialized river—Illinois](#). Fatality Assessment and Control Evaluation. By Bowyer M. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fatality Assessment and Control Evaluation (FACE) Report No. FACE-F2018-09 PA.

NIOSHTIC-2: 20063250 | NORA: Public Safety

NIOSH [2021]. [Line of Duty Death Report Visual Extension: one firefighter dies and another injured in natural gas line explosion—Wisconsin](#). Fatality Assessment and Control Evaluation. By Kline K, Merinar TR, Miles S. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fatality Assessment and Control Evaluation (FACE) Report No. FACE-F2018-12 WI. **NIOSHTIC-2: 20063086** | NORA: Public Safety

Fire Fighter Fatality Investigation and Prevention Reports

NIOSH [2021]. [Firefighter trainee dies from hyperthermia after live-fire training—Oklahoma](#). By Baldwin T, Eisenberg J, Dick W, Saunders R. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2008-24.

NIOSH TIC-2: 20062054 | NORA: Public Safety

NIOSH [2021]. [Four career fire fighters killed and 16 fire fighters injured at commercial iistructure fire—Texas \(revised\)](#). By Loflin ME, Naum CJ. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2013-16 (Revised 12/2021).

NIOSH TIC-2: 20064091 | NORA: Public Safety

NIOSH [2021]. [Career firefighter/SCUBA diver drowns while searching for civilian in an industrialized river—Illinois](#). By Bowyer M. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2018-09.

NIOSH TIC-2: 20063248 | NORA: Public Safety

NIOSH [2021]. [One firefighter dies and another injured in natural gas line explosion—Wisconsin](#). By Kline K, Merinar TR, Miles S. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2018-12.

NIOSH TIC-2: 20063085 | NORA: Public Safety

NIOSH [2021]. [Firefighter trainee suffers sudden cardiac death during physical fitness exercise—California](#). By Dick W, Welch TJ, Harrison R, Shabaz M, Styles L. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2018-17 (Revised 04/2021).

NIOSH TIC-2: 20062359 | NORA: Services

NIOSH [2021]. [Career firefighter dies after becoming disoriented in a three-story apartment building—Massachusetts](#). By Loflin ME, Merinar T, Kline K. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2018-18.

NIOSHTIC-2: 20062379 | NORA: Public Safety

NIOSH [2021]. [Career firefighter killed, a police officer and a civilian wounded when they were shot during EMS incident—Wisconsin](#). By Miles ST, Bowyer M, Chiu S, Hornsby-Myers J. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Fire Fighter Fatality Investigation and Prevention Program Report No. FACE-F2019-13.

NIOSHTIC-2: 20061829 | NORA: Public Safety / Services

Health Hazard Evaluation Reports

NIOSH [2021]. [Evaluation of occupational exposure to opioids in a city police department](#). By Chiu S, Broadwater K, Li JF. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2018-0015-3383.

NIOSHTIC-2: 20063465 | NORA: Services

NIOSH [2021]. [Evaluation of Coccidioides exposure and coccidioidomycosis infections among warehouse and distribution employees](#). By Chiu S, Glassford E. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2019-0074-3376 (revised 04/2021).

NIOSHTIC-2: 20062487 | NORA: Services

NIOSH [2021]. [Evaluation of occupational exposures to opioids, mental health symptoms, exposure to traumatic events, and job stress in a city fire department](#). By Chiu S, Wiegand DM, Broadwater K, Li JF. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2018-0015-3384.

NIOSHTIC-2: 20063471 | NORA: Services

NIOSH [2021]. [Evaluation of indoor environmental quality and health concerns among employees of a public elementary school](#). By Feldmann KD, Rinsky J, Reynolds L. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2019-0156-3382.

NIOSHTIC-2: 20063933 | NORA: Services

NIOSH [2021]. [Evaluation of exposures to metals and a perceived excess of cancer cases in a train maintenance facility](#). By Grant MP, Reynolds L, Echt H. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2019-0106-3378.

NIOSHTIC-2: 20062245 | NORA: Services

NIOSH [2021]. [Evaluation of exposures to styrene during cured-in-place pipe liner preparation and during pipe repairs using hot water and steam](#). By LeBouf RF, Burns DA, Ranpara A, Kobos L. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2019-0080-3379.

NIOSH TIC-2: 20063304

NIOSH [2021]. [Exposure to lead during residential water line replacement activities](#). By Methner MM, de Perio MA. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2019-0192-3377.

NIOSH TIC-2: 20061967 | NORA: Services

NIOSH [2021]. [Evaluation of *Mycobacterium tuberculosis* \(TB\) transmission from Asian elephants to zoo employees](#). By Varela K, Stanton ML, Tomasi S, Langer AJ, Martin SB Jr. Morgantown, WV: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, NIOSH Report No. HHE-2019-0268-3380.

NIOSH TIC-2: 20063779

Author Index

NOTE: For electronic versions of the NIOSH Bibliography, NIOSHTIC-2 numbers are linked to the corresponding page in the NIOSHTIC-2 Bibliographic Database. Clicking on page numbers will cause the page to jump to the corresponding reference. Blue type indicates links.

- Abad N**
20062661, Page 41
20064360, Page 28
- Abara WE**
20062313, Page 16
- Abdullah L**
20063483, Page 20
- Abreu M**
20063318, Page 6
20063483, Page 20
- Adams L**
20062704, Page 27
- Adams WM**
20063439, Page 26
- Addis JA**
20063600, Page 57
- Addou E**
20063497, Page 5
- Adre C**
20062921, Page 6
- Aenlle K**
20063318, Page 6
20063483, Page 20
- Afanuh S**
20063134, Page 50
20063813, Page 51
20064230, Page 52
- Afanuh SE**
20062628, Page 49
- Afshari AA**
20061692, Page 1
- Agarwal A**
20062125, Page 11
- Agarwal S**
20062266, Page 69
- Ahmed C**
20064395, Page 22
- Ahmed FS**
20061811, Page 40
- Ahmed S**
20064213, Page 28
- Ahonen EQ**
20062488, Page 13
20063937, Page 13
- Ailes EC**
20063583, Page 19
- Ajama J**
20063483, Page 20
- Ajayi KM**
20064712, Page 58
20063480, Page 55
20063503, Page 55
20063604, Page 55
- Akindileni F**
20064213, Page 28
- Alarcon W**
20064096, Page 41
- Alarcon WA**
20061418, Page 35
- Aldrich K**
20064052, Page 15
- Alexander BM**
20062834, Page 1
- Alexander-Scott M**
20061809, Page 7
20062183, Page 7
20063364, Page 3
- Alexander-Scott MC**
20064217, Page 27
- Alfredo CH**
20063437, Page 12
- Alimchandani M**
20062634, Page 35
- Aljaroudi AM**
20062490, Page 1
- Allen NJ**
20062125, Page 11
- Allison P**
20061321, Page 15
20062336, Page 17
20062430, Page 28
- Almaguer CM**
20062503, Page 37
- Almendares O**
20062313, Page 16
- Alterman T**
20064133, Page 2
- Amedro J**
20063751, Page 25
- Ammons D**
20063188, Page 35
- Amoscato AA**
20062248, Page 19
- Anderson E**
20061834, Page 31
- Anderson JL**
20060864, Page 1
20061929, Page 1
20062832, Page 14
- Anderson KR**
20061924, Page 8
- Anderson NL**
20062979, Page 8
- Anderson S**
20062267, Page 67
- Anderson SE**
20062994, Page 7
20063484, Page 40
20064257, Page 3
- Andrew M**
20062394, Page 33
20063238, Page 38
- Andrew ME**
20061321, Page 15
20062336, Page 17
20062430, Page 28
20063700, Page 39
20063756, Page 39
20064308, Page 41
- Andrews A**
20063405, Page 51
- Andrews J**
20060564, Page 17
- Angell K**
20062921, Page 6
- Anthonymuthu TS**
20062248, Page 19
- Antonini JM**
20061528, Page 35
20061692, Page 1
20062262, Page 67
20062274, Page 69
20063732, Page 9
- Apel EC**
20063580, Page 28
- Applebaum KM**
20063691, Page 5
- Arambula DG**
20062979, Page 8
- Araque A**
20062125, Page 11
- Arduino MJ**
20062979, Page 8
- Arena R**
20063497, Page 5
- Armstrong G**
20064096, Page 41
- Armstrong PA**
20062525, Page 42
- Arnold ED**
20062332, Page 37
20064163, Page 36
- Arnold KE**
20063583, Page 19
- Arroyave WD**
20059863, Page 1
- Artus A**
20062710, Page 18
- Arvidson D**
20063187, Page 5
- Aschner M**
20062269, Page 68
- Asfaw A**
20062597, Page 2
20063689, Page 2
20063691, Page 5
20064133, Page 2

- Asimellis G
20061998, Page 3
- Attfield KR
20063901, Page 26
- Audebert M
20064518, Page 18
- Austin C
20061811, Page 40
- Avram MM
20063427, Page 23
- Ayers M
20061971, Page 22
- Azofeifa A
20062122, Page 2
20063461, Page 2
- Baack BN
20064360, Page 28
- Baas PW
20063483, Page 20
- Babiker A
20061971, Page 22
- Bacci L
20064213, Page 28
- Baggett HC
20062384, Page 23
- Bahls A
20062525, Page 42
- Bahrami D
20061173, Page 2
20062306, Page 70
20063179, Page 67
20063599, Page 62
20063605, Page 55
20063610, Page 65
- Bailey RL
20062910, Page 16
20063102, Page 9
- Baker A
20063984, Page 16
- Bakhiyi B
20064334, Page 67
- Balajee SA
20062753, Page 18
- Baldwin T
20062054, Page 75
- Balmes JR
20061808, Page 27
- Balsamo GA
20063732, Page 9
- Banks RE
20063658, Page 30
- Baraniuk J
20063483, Page 20
- Barbeau B
20061811, Page 40
- Barbeito L
20062125, Page 11
- Barbi GJ
20063253, Page 46
- Barbour KE
20062661, Page 41
20062704, Page 27
- Barile JP
20061638, Page 2
20062847, Page 15
20063661, Page 19
- Barim MS
20062196, Page 36
- Barker-Cummings C
20062755, Page 13
- Barnes MA
20062276, Page 68
20064395, Page 22
- Barnes-Farrell JL
20064363, Page 10
- Barone T
20061249, Page 36
20061500, Page 10
20061849, Page 29
20064129, Page 67
- Barone TL
20060170, Page 2
20063143, Page 2
20063573, Page 56
- Barr JR
20064384, Page 32
- Barrios LC
20061998, Page 3
- Barskey AE
20061799, Page 33
- Barter D
20062921, Page 6
- Barzilai A
20062125, Page 11
- Basham C
20063364, Page 3
- Batai K
20062391, Page 14
- Batchler TJ
20064713, Page 55
- Batchler T
20063488, Page 59
20063508, Page 59
- Bateman R
20063231, Page 38
- Battaglia C
20061535, Page 13
- Battelli L
20062266, Page 69
20062272, Page 68
20064252, Page 13
- Bauerle TJ
20063883, Page 3
- Baur R
20062267, Page 67
20063484, Page 40
20064257, Page 3
- Bayir H
20062248, Page 19
- Beach CM
20062597, Page 2
- Beach J
20061774, Page 16
- Beamer B
20063912, Page 63
20063913, Page 62
- Beaucage G
20063985, Page 5
- Becene I
20063175, Page 33
- Becich MJ
20062380, Page 20
- Becker S
20062968, Page 5
20064089, Page 5
- Beezhold D
20061205, Page 34
20062731, Page 34
- Beezhold DH
20061741, Page 24
20062030, Page 4
20062061, Page 29
20062248, Page 19
20062276, Page 68
20062905, Page 29
20062971, Page 24
20063015, Page 24
20063034, Page 24
20064315, Page 8
20064395, Page 22
- Begay JG
20063470, Page 42
- Beitel S
20062391, Page 14
20063949, Page 14
- Bell R
20061535, Page 13
- Bellanca JL
20062184, Page 3
- Belpoggi F
20064518, Page 18
- Beltramo JMD
20061689, Page 17
- Belzer MH
20063878, Page 41
- Ben Hamida A
20064096, Page 41
- Benavides FG
20062488, Page 13
- Benbrahim-Tallaa L
20064518, Page 18
- Benedict K
20063102, Page 9
20064117, Page 51
20064120, Page 51
- Benjamin CL
20063439, Page 26
- Bennett DA
20061924, Page 8
- Bennett JS
20062444, Page 9
- Bennett W
20062548, Page 49
20064661, Page 46
- Benton DJ
20063490, Page 56
20063510, Page 56
- Bergles DE
20062125, Page 11
- Berl E
20061811, Page 40
- Berry S
20061051, Page 21
- Bertke S
20062554, Page 34
- Bertke SJ
20060864, Page 1
20062562, Page 3
20062832, Page 14
20062936, Page 7
20063710, Page 41
- Bessesen M
20062124, Page 24
20063291, Page 35
- Bessesen MT
20063091, Page 3
20063523, Page 14
20064374, Page 8
- Bhattacharya A
20062005, Page 3
20062490, Page 1
- Bielory L
20062393, Page 31
- Billock RM
20062083, Page 4
- Binder AM
20062525, Page 42
- Bishop L
20062664, Page 27
- Bitounis D
20063751, Page 25
- Blachere FM
20061741, Page 24
20062030, Page 4
20062971, Page 24
20063015, Page 24
20063034, Page 24
20064315, Page 8
- Black CL
20062255, Page 21
20064362, Page 32
- Black SR
20062525, Page 42
- Blackley BH
20062910, Page 16
- Blackley DJ
20061857, Page 22
20062177, Page 37
- Blackwood B
20061858, Page 39
- Blando JD
20062151, Page 4
- Block ML
20062276, Page 68
20064395, Page 22
- Blumberg SJ
20063661, Page 19
- Blumenthal H
20063825, Page 6
- Boal WL
20062335, Page 4
- Bobick T
20063813, Page 51
- Bobick TG
20062657, Page 4
- Boden LI
20063691, Page 5
- Boelter FW
20063253, Page 46
20063254, Page 46
- Boggs KM
20061872, Page 10
- Boiano J
20062783, Page 9
- Boiano JM
20061065, Page 27
20063175, Page 33

- Boice JD Jr**
20062832, Page 14
- Boltz MS**
20061524, Page 19
20062933, Page 6
20063490, Page 56
20063510, Page 56
- Bonvento G**
20062125, Page 11
- Bonwitt J**
20062955, Page 4
- Boots T**
20062971, Page 24
20063015, Page 24
20063034, Page 24
20064315, Page 8
- Boots TE**
20062935, Page 4
20063901, Page 26
- Borchers Arriagada N**
20063619, Page 38
- Borghi F**
20063030, Page 12
- Borjan M**
20062193, Page 20
- Boutin B**
20062838, Page 33
20062971, Page 24
- Bovbjerg V**
20063044, Page 27
- Bovbjerg VE**
20063118, Page 10
- Bower WA**
20063732, Page 9
- Bowers LN**
20064163, Page 36
- Bowyer M**
20061829, Page 76
20063248, Page 75
20063250, Page 73
20063286, Page 73
- Boyce G**
20062262, Page 67
20062274, Page 69
20062380, Page 20
- Brackney M**
20062921, Page 6
- Bradtmiller B**
20062861, Page 17
20064355, Page 17
- Brady TM**
20062503, Page 37
- Brake T**
20064355, Page 17
- Breitenstein M**
20063706, Page 40
- Breloff SP**
20061258, Page 9
20062893, Page 10
20063174, Page 4
- Brennan AC**
20063174, Page 4
- Brenner SA**
20062526, Page 36
20063090, Page 28
- Brewer GJ**
20063439, Page 26
20063703, Page 26
- Brewer L**
20063844, Page 51
- Bridges C**
20062661, Page 41
- Britton J**
20063169, Page 49
- Broadwater K**
20063364, Page 3
20063465, Page 77
20063471, Page 77
- Brock-Fisher T**
20063187, Page 5
- Bromet EJ**
20061924, Page 8
- Brookmeyer KA**
20062661, Page 41
20062704, Page 27
20064360, Page 28
- Brooks JT**
20062030, Page 4
20063015, Page 24
- Brown A**
20062124, Page 24
20063291, Page 35
- Brown AC**
20063091, Page 3
20064374, Page 8
- Brown AGM**
20063497, Page 5
- Brown CB**
20063600, Page 57
- Brown CJ**
20062921, Page 6
- Brown CM**
20063187, Page 5
- Brownsword EA**
20061971, Page 22
20064224, Page 22
- Brueck SE**
20061929, Page 1
- Bryan A**
20062979, Page 8
- Bryant B**
20062313, Page 16
- Bryant-Genevier J**
20062968, Page 5
20064089, Page 5
- Bugarski AD**
20063143, Page 2
20063573, Page 56
20063587, Page 57
- Bunker K**
20064252, Page 13
- Burch JB**
20062336, Page 17
20062430, Page 28
20064308, Page 41
- Buren H**
20063526, Page 36
- Burgess JL**
20062368, Page 36
20062391, Page 14
20063526, Page 36
20063949, Page 14
- Burgess-Limerick RJ**
20062184, Page 3
- Burke L**
20062195, Page 25
- Burke RM**
20062753, Page 18
- Burkel VK**
20062634, Page 35
- Burks SM**
20062269, Page 68
- Burns D**
20062272, Page 68
- Burns DA**
20063304, Page 78
- Burns M**
20063187, Page 5
- Burrell CN**
20062061, Page 29
- Burrer S**
20062193, Page 20
- Burrer SL**
20063231, Page 38
20063680, Page 45
- Burt S**
20062991, Page 25
- Burton NC**
20062979, Page 8
- Busey A**
20063691, Page 5
- Bushnell PT**
20062527, Page 20
20063710, Page 41
- Bushnell T**
20064133, Page 2
- Bustamante ND**
20064096, Page 41
- Butler CR**
20061808, Page 27
20064217, Page 27
- Butt AM**
20062125, Page 11
- Butterfield M**
20061811, Page 40
- Byers P**
20063732, Page 9
- Byrkit R**
20062968, Page 5
20064089, Page 5
- Byrne DC**
20063281, Page 45
20064217, Page 27
- Caban-Martinez AJ**
20062391, Page 14
20063526, Page 36
20063949, Page 14
- Cabana J**
20062972, Page 7
- Cable A**
20063587, Page 57
- Cabrera JJ**
20062122, Page 2
- Cadwell B**
20062704, Page 27
- Calafat AM**
20061228, Page 11
20062978, Page 25
20063949, Page 14
- Calitz C**
20063497, Page 5
- Calkins MM**
20062391, Page 14
20063526, Page 36
20063949, Page 14
- Calvert GM**
20061924, Page 8
20062090, Page 13
- Camara M**
20063985, Page 5
- Campagnolo D**
20063030, Page 12
- Campbell S**
20062979, Page 8
- Campan MJ**
20062664, Page 27
20063470, Page 42
20063911, Page 26
- Cao X**
20061501, Page 5
- Cardis E**
20061965, Page 23
- Carey RE**
20062893, Page 10
- Carmago CA Jr**
20061872, Page 10
- Carmignoto G**
20062125, Page 11
- Carpenter S**
20061811, Page 40
- Carr J**
20063489, Page 57
20063509, Page 57
- Carr JL**
20062714, Page 63
- Carrera Arias FJ**
20063318, Page 6
- Carreón T**
20059863, Page 1
20061924, Page 8
20062889, Page 30
20063825, Page 6
- Carswell S**
20062921, Page 6
- Caruso CC**
20063667, Page 47
- Casa DJ**
20063439, Page 26
20063703, Page 26
- Casagrande R**
20063364, Page 3
- Case S**
20063044, Page 27
20063118, Page 10
20063961, Page 11
- Case SL**
20061540, Page 37
- Casey M**
20061857, Page 22
20063235, Page 15
- Casey ML**
20064052, Page 15
- Casteel C**
20062247, Page 9
- Castranova V**
20063449, Page 25
- Casuccio G**
20064252, Page 13

- Cattaneo A**
20063030, Page 12
- Cattley RC**
20064518, Page 18
- Cauda E**
20061249, Page 36
20062432, Page 39
20063030, Page 12
20063169, Page 49
- Cauda EG**
20060170, Page 2
20061930, Page 7
- Cavallari JM**
20064363, Page 10
- Cavallo DM**
20063030, Page 12
- Cavendish J**
20063056, Page 21
- CDC COVID Vaccine Task Force**
20062255, Page 21
- CDC COVID-19 Emergency Response Team**
20061811, Page 40
- CDC v-safe COVID-19 Pregnancy Registry Team**
20062634, Page 35
- Ceballos D**
20064334, Page 67
- Ceballos DM**
20062189, Page 6
20063825, Page 6
- Cecala AB**
20064161, Page 52
- Celestina M**
20061179, Page 6
- Cerles A**
20063364, Page 3
- Chadarevian R**
20063601, Page 17
- Chamberlain CJ**
20062933, Page 6
- Chambers DJA**
20061524, Page 19
20062933, Page 6
20063490, Page 56
20063510, Page 56
- Chan AT**
20063175, Page 33
- Chang C-C**
20062400, Page 48
20062717, Page 48
20063497, Page 5
20064242, Page 52
- Chang KT**
20062634, Page 35
- Chao LL**
20063483, Page 20
- Chari R**
20062400, Page 48
20062717, Page 48
- Charles LE**
20061321, Page 15
20062336, Page 17
20063756, Page 39
- Chasko LL**
20063600, Page 57
- Chavarro JE**
20061065, Page 27
20061872, Page 10
20062783, Page 9
20063175, Page 33
- Chea N**
20062921, Page 6
- Check P**
20062523, Page 12
- Chen B**
20062979, Page 8
- Chen C**
20062972, Page 7
- Chen G-X**
20061094, Page 6
- Chen H**
20062892, Page 6
- Chen I-C**
20061228, Page 11
20061286, Page 7
20062078, Page 20
20062488, Page 13
20062936, Page 7
20062978, Page 25
20063580, Page 28
- Chen J**
20062843, Page 23
- Chen Q**
20060173, Page 42
20062746, Page 42
- Chen W-T**
20062125, Page 11
- Chen Y**
20062972, Page 7
- Cherniack MG**
20064363, Page 10
- Childress A**
20064242, Page 52
- Chin B**
20061857, Page 22
- Chipinda I**
20062994, Page 7
- Chisholm WP**
20062996, Page 10
- Chiu S**
20061829, Page 76
20062487, Page 77
20063364, Page 3
20063465, Page 77
20063471, Page 77
- Chiu SK**
20062193, Page 20
20062731, Page 34
20063231, Page 38
20063583, Page 19
- Cho J**
20064239, Page 37
- Cho P**
20061702, Page 35
- Choi H-S**
20061786, Page 7
20063188, Page 35
- Choi MJ**
20064096, Page 41
- Choi YW**
20063716, Page 12
- Chosewood LC**
20063038, Page 12
20063256, Page 45
20063455, Page 29
- Christianson A**
20062554, Page 34
- Christianson AL**
20062991, Page 25
- Chu LF**
20062843, Page 23
- Chu MC**
20062843, Page 23
- Chu MT**
20063825, Page 6
- Chu S**
20062843, Page 23
- Chu VT**
20062313, Page 16
- Chubb L**
20062432, Page 39
20063169, Page 49
- Chubb LG**
20061930, Page 7
- Chuey M**
20061811, Page 40
- Ciccarelli GA**
20063321, Page 36
- Cicek S**
20061765, Page 7
- Cichowicz J**
20063405, Page 51
- Ciesielski Jones AJ**
20062755, Page 13
- Ciesielski AL**
20061809, Page 7
20062183, Page 7
- Cinemre FB**
20062248, Page 19
- Clark KA**
20061808, Page 27
20062177, Page 37
20064217, Page 27
- Clark T**
20062090, Page 13
20062843, Page 23
- Clark TA**
20062587, Page 35
- Clarke KEN**
20062386, Page 16
- Clayton H**
20062704, Page 27
- Clayton JL**
20061811, Page 40
- Click ES**
20060716, Page 20
- Clingerman S**
20064252, Page 13
- Clouston SAP**
20061924, Page 8
- Cobb C**
20064521, Page 63
- Coca A**
20063992, Page 31
- Cochrane S**
20063573, Page 56
- Coffey C**
20062838, Page 33
20063102, Page 9
20063409, Page 50
20063534, Page 50
20063884, Page 50
20064117, Page 51
20064120, Page 51
20064122, Page 51
- Coffey CC**
20063638, Page 8
- Cohen-Salmon M**
20062125, Page 11
- Cole G**
20063169, Page 49
- Cole MM**
20062255, Page 21
- Colinet JF**
20062789, Page 67
20063272, Page 50
20063493, Page 61
20063512, Page 61
- Collins DT**
20062554, Page 34
- Collins JW**
20061094, Page 6
- Collins S**
20062548, Page 49
20064661, Page 46
- Compton C**
20061928, Page 38
- Compton CC**
20061221, Page 21
- Conboy L**
20063483, Page 20
- Concannon C**
20062921, Page 6
- Conly JM**
20062843, Page 23
- Cook Botelho J**
20063949, Page 14
- Cornell J**
20063135, Page 30
- Cornish NE**
20062979, Page 8
- Cotrim T**
20063437, Page 12
- Cottrell G**
20064163, Page 36
- Cousins DS**
20062755, Page 13
- Cox J**
20064518, Page 18
- Cox-Ganser JM**
20061878, Page 29
20062242, Page 8
20062910, Page 16
20064149, Page 39
- Coy KC**
20064360, Page 28
- Coyle J**
20062266, Page 69
20062971, Page 24
20063034, Page 24

- Coyle JP**
 20061501, Page 5
 20062030, Page 4
 20063015, Page 24
 20064315, Page 8
- Craddock TJA**
 20063318, Page 6
- Crawley A**
 20063135, Page 30
- Crombie K**
 20062991, Page 25
- Crosswy S**
 20064052, Page 15
- Croston T**
 20062261, Page 67
- Croston TL**
 20062276, Page 68
 20064395, Page 22
- Crum DA**
 20061811, Page 40
- Crump C**
 20061786, Page 7
- Cruz M**
 20062122, Page 2
- Cui Y**
 20062843, Page 23
- Cummings DAT**
 20062124, Page 24
 20063091, Page 3
 20063291, Page 35
 20063523, Page 14
 20064374, Page 8
- Cummings KJ**
 20062910, Page 16
 20064149, Page 39
- Cummins J**
 20061811, Page 40
- Cumpston JL**
 20062210, Page 19
- Cunningham C**
 20062125, Page 11
- Cunningham T**
 20063752, Page 8
- Cunningham TR**
 20063903, Page 15
- Current R**
 20063188, Page 35
- Currie D**
 20062313, Page 16
- Currie DW**
 20062955, Page 4
- Curti S**
 20061774, Page 16
- Curwin BD**
 20062936, Page 7
- Cybulski K**
 20061949, Page 30
- Czaja CA**
 20062921, Page 6
- Czarnik M**
 20061998, Page 3
- Côté D**
 20064334, Page 67
- D'Alessandro MM**
 20064358, Page 15
 20064550, Page 14
- Dahm M**
 20064252, Page 13
- Dahm MM**
 20062937, Page 25
 20063911, Page 26
- Dai F**
 20061258, Page 9
 20062893, Page 10
- Damiano N**
 20062257, Page 65
 20063190, Page 42
 20063489, Page 57
 20063509, Page 57
- Damon I**
 20064096, Page 41
- Damon S**
 20062753, Page 18
- Dams L**
 20062843, Page 23
- Dana J**
 20064096, Page 41
- Daniels RD**
 20060864, Page 1
 20061924, Page 8
 20061965, Page 23
 20062562, Page 3
 20063478, Page 40
- Darby B**
 20061811, Page 40
- Dasgupta S**
 20062661, Page 41
- Daskalakis D**
 20063135, Page 30
- Davies JM**
 20062843, Page 23
- Davis J**
 20062247, Page 9
- Davis JE**
 20064308, Page 41
- Davis SS**
 20062921, Page 6
- Dawson D**
 20063883, Page 3
- Dawson P**
 20063732, Page 9
- de Conti A**
 20064518, Page 18
- de Groene GJ**
 20061774, Page 16
- De Jaeger S**
 20062843, Page 23
- de Perio M**
 20064117, Page 51
 20064120, Page 51
- de Perio MA**
 20061205, Page 34
 20061834, Page 31
 20061967, Page 78
 20062193, Page 20
 20062731, Page 34
 20063102, Page 9
 20063732, Page 9
 20064362, Page 32
- De Strooper B**
 20062125, Page 11
- Deaton AS**
 20062078, Page 20
- DeBono N**
 20061620, Page 33
- DeBono NL**
 20064518, Page 18
- Deffner V**
 20061620, Page 33
- DeGennaro C**
 20064621, Page 56
- DeGennaro CR**
 20062714, Page 63
 20064623, Page 64
- DeGroot DW**
 20063439, Page 26
- Dehn K**
 20063490, Page 56
 20063510, Page 56
- DeKosky ST**
 20061924, Page 8
- Delaney LJ**
 20063680, Page 45
- Delaval MN**
 20062427, Page 34
- Delclos GL**
 20063038, Page 12
- Deluzio J**
 20063494, Page 61
 20063513, Page 62
- Demers PA**
 20061620, Page 33
- Demokritou P**
 20063751, Page 25
- DeMott P**
 20063580, Page 28
- Dempsey PG**
 20062841, Page 56
 20063274, Page 27
 20064161, Page 52
- Deneen B**
 20062125, Page 11
- Deng L**
 20062264, Page 18
- Dennerlein JT**
 20062195, Page 25
- Denson JL**
 20063470, Page 42
- Derk R**
 20062266, Page 69
- Derk RC**
 20062030, Page 4
 20062971, Page 24
 20063015, Page 24
 20063034, Page 24
 20064315, Page 8
- Deter L**
 20061535, Page 13
- Dewald A**
 20063949, Page 14
- Deya RW**
 20062955, Page 4
- Deye G**
 20062902, Page 22
- Dhillon S**
 20064213, Page 28
- Di Giuseppe M**
 20063102, Page 9
 20064117, Page 51
 20064120, Page 51
- Diallo Y**
 20062753, Page 18
- Dicent-Taillepierre J**
 20062022, Page 12
- Dick W**
 20062020, Page 48
 20062021, Page 48
 20062054, Page 75
 20062359, Page 75
- Dickinson JL**
 20063619, Page 38
- Dickson A**
 20063655, Page 31
- Dickson BA**
 20062979, Page 8
- Diedhiou A**
 20061811, Page 40
- Dietrich WL**
 20062444, Page 9
- Dillaha JA**
 20061811, Page 40
- Diminich ED**
 20061924, Page 8
- Ding M**
 20062783, Page 9
 20063175, Page 33
- Dinh T-H**
 20064213, Page 28
- Dinu CZ**
 20062266, Page 69
- Dismer AM**
 20064096, Page 41
- Do MT**
 20061620, Page 33
- Dodd T**
 20064252, Page 13
- Doepke A**
 20063331, Page 9
 20063986, Page 9
- Dominguez K**
 20062022, Page 12
- Domitrovich JW**
 20061808, Page 27
 20063193, Page 34
 20063580, Page 28
 20064217, Page 27
- Donahue M**
 20061811, Page 40
- Donato C**
 20063655, Page 31
- Doney B**
 20063144, Page 9
 20063275, Page 37
- Dong RG**
 20060173, Page 42
 20061258, Page 9
 20062746, Page 42
 20063452, Page 10
- Dostal TKH**
 20061811, Page 40
- Dotson GS**
 20062813, Page 13
- Dotson NQ**
 20061834, Page 31

- Dougherty H**
 20061764, Page 11
 20061966, Page 37
 20062797, Page 11
 20063476, Page 62
 20063502, Page 62
 20064221, Page 68
 20064715, Page 62
- Doza S**
 20063118, Page 10
- Dozier A**
 20062972, Page 7
- Dozier AK**
 20063090, Page 28
- Drew N**
 20062694, Page 49
- Drew NM**
 20062935, Page 4
 20064384, Page 32
- Driscoll J**
 20063493, Page 61
 20063512, Page 61
- Driscoll JS**
 20061422, Page 21
- Drury CG**
 20062841, Page 56
- Du Plessis JL**
 20062986, Page 36
- Du Preez S**
 20062986, Page 36
- Dubaniewicz TH**
 20061500, Page 10
 20063143, Page 2
 20064129, Page 67
- DuBose W**
 20062386, Page 16
- Duchin J**
 20062955, Page 4
- Dugan AG**
 20064363, Page 10
- Dugdale ZJ**
 20063883, Page 3
- Duling MG**
 20062971, Page 24
 20064163, Page 36
- Dumas O**
 20061872, Page 10
- Dumyati G**
 20062921, Page 6
- Dunbar AL**
 20062276, Page 68
- Dunn A**
 20062313, Page 16
- Dunn AC**
 20062384, Page 23
- Dunn KL**
 20062694, Page 49
- Dunn M**
 20063187, Page 5
- Dunne EM**
 20061811, Page 40
- Duriez C**
 20061786, Page 7
- Dutta A**
 20062893, Page 10
- Dwaraknath S**
 20062972, Page 7
- Dyduch Z**
 20061949, Page 30
- Díaz-Castro B**
 20062125, Page 11
- Eastlake AC**
 20062526, Page 36
 20063090, Page 28
- Echt A**
 20062944, Page 71
- Echt H**
 20062245, Page 77
- Ede JD**
 20061695, Page 16
- Edens C**
 20061799, Page 33
- Edge K**
 20061811, Page 40
- Edwards K**
 20061834, Page 31
- Edwards NT**
 20063305, Page 37
- Eggerth DE**
 20060846, Page 12
 20062523, Page 12
- Ehlman DC**
 20062313, Page 16
- Eisenberg J**
 20062054, Page 75
 20063680, Page 45
 20064217, Page 27
- Eiter BM**
 20063178, Page 68
 20064680, Page 17
- Eke P**
 20062704, Page 27
- El Ghissassi F**
 20064518, Page 18
- Ellington SR**
 20062634, Page 35
- Ellis ED**
 20062832, Page 14
- Elmquist A**
 20061786, Page 7
- Epperly MW**
 20062248, Page 19
- Erdely A**
 20062262, Page 67
 20062274, Page 69
 20062664, Page 27
 20063449, Page 25
 20063470, Page 42
 20063751, Page 25
 20063911, Page 26
 20064252, Page 13
- Erdem E**
 20064163, Page 36
- Erekaife G**
 20062996, Page 10
- Ericson ME**
 20063823, Page 24
- Escartin C**
 20062125, Page 11
- Escutia G**
 20062921, Page 6
- Espinosa C**
 20062313, Page 16
- Esschert KLV**
 20061638, Page 2
- Esterhuizen GS**
 20061764, Page 11
 20062797, Page 11
 20064221, Page 68
 20064712, Page 58
- Esterhuizen E**
 20064704, Page 64
- Esterhuizen GZ**
 20061767, Page 21
- Estill CF**
 20061228, Page 11
- Eure T**
 20062921, Page 6
- Evanek N**
 20061221, Page 21
 20061850, Page 11
 20061861, Page 11
 20064132, Page 68
- Evans AE**
 20062189, Page 6
- Evans D**
 20062843, Page 23
- Evans DE**
 20062892, Page 6
- Evans ME**
 20060716, Page 20
- Evoy R**
 20063961, Page 11
- Ewetola R**
 20062384, Page 23
- Eye T**
 20063911, Page 26
 20064252, Page 13
- Fadeel B**
 20062427, Page 34
- Fan JK**
 20060271, Page 12
- Fanti G**
 20063030, Page 12
- Farcas MT**
 20062272, Page 68
- Farina C**
 20062125, Page 11
- Faris P**
 20062843, Page 23
- Farrall S**
 20062661, Page 41
- Fatkhutkinova LM**
 20062427, Page 34
- Fazekas K**
 20062753, Page 18
- Fedak KM**
 20061811, Page 40
- Fedan JS**
 20062273, Page 70
- Federico A**
 20062427, Page 34
- Fekedulegn D**
 20061321, Page 15
 20062336, Page 17
 20062394, Page 33
 20062430, Page 28
 20063756, Page 39
 20064308, Page 41
- Feldmann K**
 20063732, Page 9
- Feldmann KD**
 20063933, Page 77
- Feldpausch A**
 20061811, Page 40
- Feldstein F**
 20062022, Page 12
- Felknor SA**
 20063038, Page 12
 20063305, Page 37
- Fell A**
 20062921, Page 6
- Fell AKM**
 20063433, Page 21
- Fellows KM**
 20062189, Page 6
- Fendinger S**
 20062548, Page 49
 20064661, Page 46
- Feng HA**
 20061535, Page 13
 20062128, Page 28
 20063055, Page 14
- Fenske N**
 20061620, Page 33
- Fent K**
 20062648, Page 49
 20063526, Page 36
 20064217, Page 27
- Fent KW**
 20060564, Page 17
 20062078, Page 20
 20062213, Page 23
 20062978, Page 25
- Fernandez E**
 20064071, Page 31
 20064255, Page 31
- Fernando RD**
 20062714, Page 63
 20064623, Page 64
- Fernhall B**
 20062213, Page 23
- Fierro M**
 20061811, Page 40
- Filep EM**
 20063439, Page 26
- Finch CE**
 20061924, Page 8
- Fink S**
 20064213, Page 28
- Fink T**
 20063187, Page 5
- Fischer EV**
 20063580, Page 28
- Fischer FM**
 20063437, Page 12
- Fisher D**
 20063437, Page 12
- Fisher EM**
 20062503, Page 37
 20063716, Page 12
- Fisher GG**
 20062400, Page 48
 20062717, Page 48
- Fisher KA**
 20061638, Page 2

- Fitter DL**
20062255, Page 21
- Fitzgerald A**
20062525, Page 42
- Fladeland R**
20063056, Page 21
- Florek KR**
20062386, Page 16
- Flores S**
20062704, Page 27
- Flouris AD**
20063439, Page 26
- Flower D**
20063984, Page 16
- Floyd K**
20061527, Page 35
20064130, Page 69
- Fluharty K**
20064252, Page 13
- Flynn M**
20063307, Page 59
20064242, Page 52
20064334, Page 67
- Flynn MA**
20060846, Page 12
20062022, Page 12
20062523, Page 12
20063655, Page 31
- Ford McLaughlin C**
20063254, Page 46
- Foreman A**
20063187, Page 5
- Foreman AM**
20062135, Page 13
- Fornal CA**
20062268, Page 69
- Forsberg K**
20061834, Page 31
- Fosbroke D**
20064242, Page 52
- Fotta SA**
20064315, Page 8
- Fowles JR**
20063901, Page 26
- Fox K**
20062661, Page 41
20062704, Page 27
- Fox MA**
20062813, Page 13
- Fox MP**
20063691, Page 5
- Franck M**
20064213, Page 28
- Frank L**
20062921, Page 6
- Fraser K**
20062274, Page 69
20063470, Page 42
20064252, Page 13
- Frazier J**
20062708, Page 61
20063514, Page 61
- Frederick J**
20063091, Page 3
- Free H**
20062083, Page 4
20062920, Page 47
- Freeman B**
20062313, Page 16
- Freeman J**
20064096, Page 41
- Freeman L**
20062968, Page 5
20064089, Page 5
- Freeman M**
20062125, Page 11
- Friedel JE**
20062135, Page 13
- Friedman L**
20062193, Page 20
- Friend S**
20062266, Page 69
- Friend SA**
20062272, Page 68
20063143, Page 2
20063449, Page 25
- Fries M**
20063405, Page 51
- Fritz J**
20063169, Page 49
- Fujishiro K**
20062488, Page 13
20063937, Page 13
- Fukunaga R**
20062384, Page 23
- Fulcher J**
20063439, Page 26
- Fulton JE**
20063497, Page 5
- Funke J**
20062182, Page 48
20064230, Page 52
- Furek A**
20063235, Page 15
20064052, Page 15
20064358, Page 15
- Furlong J**
20062145, Page 30
- Furlong MA**
20062391, Page 14
- Gabel JA**
20061811, Page 40
- Gabriel SB**
20063187, Page 5
- Galea E**
20062125, Page 11
- Galinsky T**
20061535, Page 13
- Gallagher GR**
20063187, Page 5
- Gallagher T**
20062843, Page 23
- Gallo V**
20062125, Page 11
- Galloway R**
20062710, Page 18
- Ganapathiraju MK**
20062380, Page 20
- Gandhi J**
20064257, Page 3
- Gandy S**
20061924, Page 8
- Gangrade V**
20061296, Page 32
20061527, Page 35
20062389, Page 40
20063307, Page 59
20063604, Page 55
20064130, Page 69
- Gardner K**
20062384, Page 23
- Garg A**
20063303, Page 47
- Garza E**
20062313, Page 16
- Garza JL**
20064363, Page 10
- Gaskins AJ**
20061872, Page 10
20062783, Page 9
- Gaydos CA**
20062124, Page 24
20063091, Page 3
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Gayle K**
20062386, Page 16
- Ge C**
20064518, Page 18
- Gearhart DF**
20061764, Page 11
- Gee J**
20062090, Page 13
20062587, Page 35
- Gee JE**
20063732, Page 9
- Gee JM**
20062634, Page 35
- Geiger-Brown J**
20063667, Page 47
- Gelber E**
20064213, Page 28
- Goldenhuis WJ**
20063056, Page 21
- Geraci C**
20064242, Page 52
- Geraci CL**
20063582, Page 27
- Geum SW**
20062337, Page 22
- Gharpure R**
20062661, Page 41
20063187, Page 5
- Ghia U**
20063754, Page 59
- Ghinai I**
20062525, Page 42
- Gibbins JD**
20063658, Page 30
- Gibbs BB**
20062281, Page 31
- Gibbs-Scharf L**
20062264, Page 18
20062661, Page 41
20062704, Page 27
- Gibert C**
20063523, Page 14
- Gibert CL**
20062124, Page 24
20063091, Page 3
20063291, Page 35
20064374, Page 8
- Gibson-Young L**
20061998, Page 3
- Gillies M**
20061965, Page 23
- Gilligan CJ**
20062839, Page 24
- Gimeno Ruiz de Porras D**
20062488, Page 13
- Ginsberg JP**
20062430, Page 28
- Giri JG**
20062979, Page 8
- Girman M**
20063482, Page 57
20063487, Page 65
20063505, Page 56
20063507, Page 65
- Glasgow RE**
20063903, Page 15
- Glassford E**
20062487, Page 77
20063427, Page 23
- Glenn B**
20059863, Page 1
- Godine D**
20062921, Page 6
- Goff D**
20063497, Page 5
- Goldberg M**
20062755, Page 13
- Golden AP**
20062832, Page 14
- Goldfarb DG**
20063478, Page 40
- Goldman JE**
20062125, Page 11
- Goldman SA**
20062125, Page 11
- Goldsmith WT**
20062971, Page 24
20063449, Page 25
- Golier J**
20063483, Page 20
- Gomes RF**
20062942, Page 34
- Gong W**
20063055, Page 14
20063908, Page 26
- Gonzales E**
20063998, Page 31
- Goodman AB**
20060716, Page 20
- Goodman GVR**
20061949, Page 30
- Goodman S**
20064518, Page 18
- Goodrich JM**
20062391, Page 14
20063949, Page 14
- Gore RJ**
20062839, Page 24

- Gorse GJ**
20062124, Page 24
20063091, Page 3
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Gould DW**
20062968, Page 5
20064089, Page 5
- Graber JM**
20063949, Page 14
- Grace PM**
20061454, Page 22
- Graff NR**
20061811, Page 40
- Graham LA**
20064363, Page 10
- Gran M**
20062548, Page 49
20064661, Page 46
- Grant C**
20063526, Page 36
20063949, Page 14
- Grant M**
20062195, Page 25
- Grant MP**
20062245, Page 77
20063427, Page 23
- Gravel S**
20064334, Page 67
- Graydon PS**
20064217, Page 27
- Greco D**
20062427, Page 34
- Green BJ**
20061878, Page 29
20062276, Page 68
20062393, Page 31
20063102, Page 9
20063427, Page 23
20063619, Page 38
20064395, Page 22
- Green CJ**
20062634, Page 35
- Green DR**
20063699, Page 14
- Green RF**
20061998, Page 3
- Greenawald L**
20063364, Page 3
- Greenawald LA**
20060453, Page 14
20064358, Page 15
20064550, Page 14
20064751, Page 52
- Greenberger JS**
20062248, Page 19
- Greve HJ**
20062276, Page 68
20064395, Page 22
- Griffin SC**
20062368, Page 36
- Griffith NK**
20062979, Page 8
- Griffiths PR**
20062655, Page 30
- Grigoriadis G**
20062213, Page 23
- Grimes GR**
20061781, Page 28
- Groenewold M**
20062921, Page 6
- Groenewold MR**
20062083, Page 4
- Groh JR**
20063483, Page 20
- Grosch JW**
20062527, Page 20
- Grosse Y**
20064518, Page 18
- Grossman MK**
20062264, Page 18
- Grounds T**
20061296, Page 32
- Grundstein AJ**
20063439, Page 26
- Gu JK**
20061321, Page 15
20063238, Page 38
20063700, Page 39
20063756, Page 39
- Guagliardo SAJ**
20062710, Page 18
- Gubser J**
20062525, Page 42
- Guerin R**
20064360, Page 28
- Guerin RJ**
20058495, Page 15
20061638, Page 2
20061973, Page 29
20062847, Page 15
20063661, Page 19
20063903, Page 15
- Guha N**
20059863, Page 1
- Gulotta J**
20062391, Page 14
20063949, Page 14
- Gulvik CA**
20063732, Page 9
- Gunnels B**
20062661, Page 41
- Gupta RK**
20062266, Page 69
- Gurbaxani BM**
20061638, Page 2
- Gustavsson P**
20064518, Page 18
- Gutierrez B**
20061811, Page 40
- Gutilla MJ**
20061998, Page 3
- Gutiérrez A**
20062125, Page 11
- Gutiérrez-Santamaría B**
20063992, Page 31
- Guymon C**
20062384, Page 23
- Guzman-Cotrill JA**
20062921, Page 6
- Gwinn W**
20064518, Page 18
- Gwinn WM**
20061501, Page 5
- Götz M**
20062125, Page 11
- Hlopick N**
20064704, Page 64
- Haas EJ**
20061851, Page 15
20062234, Page 15
20063182, Page 68
20063235, Page 15
20063485, Page 57
20063506, Page 57
20064052, Page 15
20064358, Page 15
20064550, Page 14
- Haberling DL**
20064096, Page 41
- Habibi A**
20063587, Page 57
- Haddock KS**
20061535, Page 13
- Hagan-Haynes K**
20063984, Page 16
- Hager G**
20061786, Page 7
- Halappanavar S**
20061695, Page 16
- Hale CR**
20064217, Page 27
- Hales T**
20062020, Page 48
20062021, Page 48
- Hall CB**
20061924, Page 8
20063478, Page 40
- Hall N**
20063187, Page 5
- Halldin C**
20061857, Page 22
- Halldin CN**
20063272, Page 50
- Hallisey E**
20062264, Page 18
- Hallman WK**
20061122, Page 38
- Hamilton C**
20062548, Page 49
20064661, Page 46
- Hamilton J**
20062753, Page 18
- Hammond DR**
20062272, Page 68
- Han D**
20061786, Page 7
- Hand J**
20062193, Page 20
- Hanig JP**
20062269, Page 68
- Hanley KW**
20062889, Page 30
- Hanson D**
20063481, Page 58
20063491, Page 59
20063504, Page 58
20063511, Page 59
- Harcourt BH**
20062843, Page 23
- Harden SM**
20063903, Page 15
- Hardt DJ**
20061808, Page 27
- Harduar-Morano L**
20062193, Page 20
- Hardy BW**
20061122, Page 38
- Harik V**
20063187, Page 5
- Haring Sweeney M**
20062083, Page 4
- Harkema JR**
20063449, Page 25
- Harris JR**
20062838, Page 33
20062971, Page 24
- Harris L**
20062264, Page 18
20062661, Page 41
- Harris LQ**
20062255, Page 21
20062704, Page 27
- Harris ML**
20061949, Page 30
20062594, Page 30
20063600, Page 57
- Harrison R**
20062359, Page 75
- Hart JE**
20063175, Page 33
- Hartley D**
20062151, Page 4
- Harvey RR**
20062910, Page 16
- Hasan Mazumder MH**
20063751, Page 25
- Hast M**
20061799, Page 33
- Haubrugge E**
20062843, Page 23
- Hause M**
20064355, Page 17
- Hayashi Y**
20062135, Page 13
- Hayden M**
20062196, Page 36
- Hayden P**
20061501, Page 5
- Haydon PG**
20062125, Page 11
- Hayes D**
20062122, Page 2
- Haylock R**
20061965, Page 23
- He Z**
20062269, Page 68
- Hearl F**
20061786, Page 7
20063254, Page 46
- Hearl FJ**
20061205, Page 34
20061959, Page 45
20062731, Page 34

- Heeren T
20063483, Page 20
- Heflich RH
20061501, Page 5
- Heil G
20062128, Page 28
- Heiland DH
20062125, Page 11
- Heilman JM
20063268, Page 26
- Heinzerling A
20061811, Page 40
- Helfrich W
20062139, Page 34
- Hendricks K
20063732, Page 9
- Hendricks KJ
20063247, Page 16
- Hendricks S
20063275, Page 37
- Hendricks SA
20063247, Page 16
- Henn S
20062783, Page 9
- Henn SA
20061872, Page 10
- Henneberger PK
20061774, Page 16
20062242, Page 8
20063433, Page 21
- Herbert G
20063470, Page 42
- Herne M
20062753, Page 18
- Herr DW
20062269, Page 68
- Herrick R
20064334, Page 67
- Herrick RF
20063825, Page 6
- Hersh AL
20062313, Page 16
- Hershov RB
20062313, Page 16
20062386, Page 16
- Hertel JK
20063433, Page 21
- Hettick JM
20062971, Page 24
20064226, Page 23
- Heyne B
20062843, Page 23
- Hildebrant R
20061949, Page 30
- Hill L
20062968, Page 5
20064089, Page 5
- Hill M
20062313, Page 16
- Hills AJ
20063580, Page 28
- Hilton C
20063307, Page 59
- Hilton T
20061535, Page 13
- Hirschman J
20062753, Page 18
- Hirst D
20063364, Page 3
- Hirst DVL
20062946, Page 71
20062947, Page 71
20062948, Page 72
20062949, Page 71
20062950, Page 72
20062951, Page 72
- Hitchcock EM
20061094, Page 6
- Hitchings MDT
20064374, Page 8
- Hocevar S
20060716, Page 20
- Hodgins J
20061786, Page 7
- Hoebbel CL
20063182, Page 68
- Hoffmaster AR
20063732, Page 9
- Hol EM
20062125, Page 11
- Holdsworth G
20062694, Page 49
- Holla ØL
20063433, Page 21
- Holm EA
20061855, Page 24
- Holman EJ
20064213, Page 28
- Holschbach MA
20063318, Page 6
- Holst MM
20062336, Page 17
- Holt MG
20062125, Page 11
- Homdayjanakul K
20062843, Page 23
- Homer J
20063489, Page 57
20063509, Page 57
- Honanie K
20062753, Page 18
- Honein MA
20061811, Page 40
- Hong R
20062193, Page 20
- Hood J
20062955, Page 4
- Hope K
20062843, Page 23
- Horan KA
20061689, Page 17
- Horn GP
20060564, Page 17
20062078, Page 20
20062213, Page 23
20062978, Page 25
- Hornback D
20062548, Page 49
20064661, Page 46
- Hornbrook RS
20063580, Page 28
- Hornsby-Myers J
20061829, Page 76
- Horton MK
20062972, Page 7
- Horvatin M
20062035, Page 39
20062443, Page 32
20062838, Page 33
- Hosni MH
20062444, Page 9
- Hosokawa Y
20063439, Page 26
- Hostler D
20063439, Page 26
- Howard J
20061205, Page 34
20061959, Page 45
20062731, Page 34
20063253, Page 46
20063260, Page 45
20063263, Page 45
20063305, Page 37
20063461, Page 2
20063582, Page 27
20063601, Page 17
- Howley MM
20063583, Page 19
- Hrica JK
20063178, Page 68
20064680, Page 17
- Hsiao H
20061959, Page 45
20062861, Page 17
20063188, Page 35
20064355, Page 17
- Hu G
20064257, Page 3
- Hu M
20063276, Page 63
- Hu W
20060851, Page 42
- Hu YH
20063955, Page 40
- Huang W
20062400, Page 48
20062717, Page 48
- Hubbs A
20062694, Page 49
20064252, Page 13
- Hudson HL
20063651, Page 17
- Hudson N
20062813, Page 13
- Huggins RA
20063439, Page 26
- Hughes J
20062391, Page 14
20063949, Page 14
- Hughes MM
20062264, Page 18
- Hughes S
20063134, Page 50
20063813, Page 51
20064230, Page 52
- Hughes SE
20062104, Page 18
- Humeyestewa D
20062753, Page 18
- Hummer JA
20063573, Page 56
- Hungerford M
20063426, Page 26
- Hunter R
20063470, Page 42
- Huntington-Frazier M
20062955, Page 4
- Hussain S
20063449, Page 25
20063751, Page 25
- Hussey J
20062336, Page 17
- Huster K
20063998, Page 31
- Hébert JR
20064308, Page 41
- Iannacchione A
20061850, Page 11
20061861, Page 11
20064132, Page 68
- IARC Monographs Vol
130 Group
20064518, Page 18
- Iino M
20062125, Page 11
- Ijaz S
20061858, Page 39
- Imam SZ
20062269, Page 68
- Ingalls L
20063587, Page 57
- Ingersoll JM
20061971, Page 22
20064224, Page 22
- Irvin E
20063878, Page 41
- Iskander JK
20063658, Page 30
- Ivanova AA
20064384, Page 32
- Iverson SA
20062710, Page 18
- Jaber N
20063478, Page 40
- Jacklitsch B
20063752, Page 8
- Jacklitsch BL
20063439, Page 26
- Jacksha R
20061281, Page 18
20062654, Page 68
- Jackson M
20062272, Page 68
- Jacobson CJ Jr
20060846, Page 12
- Jahnke S
20063526, Page 36
- Jain A
20061786, Page 7
- Janulewicz P
20063483, Page 20
- Janulewicz PA
20062189, Page 6
- Jardine JF
20063439, Page 26

Author Index

- Jarnot A
20063580, Page 28
- Jayatilaka N
20061228, Page 11
- Jayjock M
20063254, Page 46
- Jazwa A
20062090, Page 13
- Jeffers A
20061638, Page 2
- Jenkins R
20062753, Page 18
- Jenkins T
20062391, Page 14
20063949, Page 14
- Jensen J
20062266, Page 69
20064252, Page 13
- Jervis RH
20061811, Page 40
- Jha R
20062196, Page 36
- Jia H
20063661, Page 19
- Jiang H
20062238, Page 19
20063592, Page 58
- Jinnett K
20063497, Page 5
- Jobs C
20063489, Page 57
20063509, Page 57
- Jog MA
20062892, Page 6
- Johnson B
20063706, Page 40
- Johnson C
20062266, Page 69
20062783, Page 9
- Johnson CY
20061065, Page 27
20063583, Page 19
- Johnson H
20063187, Page 5
- Johnson JA Jr
20062276, Page 68
20064395, Page 22
- Johnson K
20062708, Page 61
20063514, Page 61
- Johnson SW
20061524, Page 19
- Johnston C
20062432, Page 39
- Johnston FH
20063619, Page 38
- Johnston H
20062921, Page 6
- Johnston RA
20062273, Page 70
- Jolois O
20062843, Page 23
- Jones B
20062525, Page 42
- Jones BW
20062444, Page 9
- Jones J
20062268, Page 69
- Jones PJ
20063619, Page 38
- Jordan TL
20063716, Page 12
- Joseph P
20062210, Page 19
- Juang D
20064096, Page 41
- Julian E
20061811, Page 40
- Jung AM
20062391, Page 14
20063949, Page 14
- Kabra KB
20062843, Page 23
- Kagan VE
20062248, Page 19
- Kahveci Z
20061370, Page 19
20063454, Page 19
- Kang JH
20063175, Page 33
- Kang S
20062137, Page 19
20063474, Page 31
- Kapralov AA
20062248, Page 19
- Karacan CÖ
20062389, Page 40
- Kardous CA
20060851, Page 42
20061179, Page 6
- Karlsson ND
20062839, Page 24
- Karunakaran KB
20062380, Page 20
- Kas JJ
20062972, Page 7
- Kashon M
20062272, Page 68
20062273, Page 70
- Kashon ML
20062061, Page 29
20062996, Page 10
20064252, Page 13
- Kastanenka KV
20062125, Page 11
- Kau T-Y
20061163, Page 29
- Kaur H
20062527, Page 20
20062753, Page 18
20063428, Page 20
- Kawakami V
20062955, Page 4
- Kearns A
20063187, Page 5
- Keating D
20063483, Page 20
- Keating R
20063998, Page 31
- Keil A
20062562, Page 3
- Keita M
20064096, Page 41
- Keller BM
20062523, Page 12
- Keller M
20063030, Page 12
- Kelley EE
20063751, Page 25
- Kelly KA
20063715, Page 25
- Kelly EE
20063449, Page 25
- Kelly KA
20062268, Page 69
20062271, Page 69
20063318, Page 6
- Kelly-Reif K
20060864, Page 1
20061620, Page 33
20062193, Page 20
20062955, Page 4
- Kempher H
20061811, Page 40
- Kerber S
20060564, Page 17
20062078, Page 20
20062213, Page 23
20062978, Page 25
- Kesler RM
20060564, Page 17
20062078, Page 20
- Kesminiene A
20061965, Page 23
- Kesner JS
20062755, Page 13
- Keswani Cope A
20064213, Page 28
- Kettenmann H
20062125, Page 11
- Khademian Z
20063604, Page 55
20064712, Page 58
- Khakh BS
20062125, Page 11
- Khaliullin TO
20062427, Page 34
- Khramtsov VV
20063449, Page 25
20063751, Page 25
- Kiederer M
20064122, Page 51
- Kiernan E
20060716, Page 20
- Kilgore-Bowling G
20061998, Page 3
- Kilinc-Balci FS
20061370, Page 19
20061858, Page 39
20062843, Page 23
20063454, Page 19
- Killiany R
20063483, Page 20
- Kim B-H
20061051, Page 21
20061771, Page 20
20062913, Page 58
- Kim BY
20063909, Page 25
- Kim H
20064697, Page 58
- Kim E
20062337, Page 22
- Kim J-H
20063992, Page 31
- Kim SY
20062634, Page 35
- Kimutis R
20061766, Page 26
20061772, Page 32
20061966, Page 37
20063476, Page 62
20063502, Page 62
20064714, Page 60
- Kimyon RS
20063192, Page 21
- Kincl L
20063044, Page 27
- Kincl LD
20063118, Page 10
- King BA
20062177, Page 37
- King WP
20063031, Page 42
- Kipling LM
20062755, Page 13
- Kirbiyik U
20062525, Page 42
- Kirby E
20064117, Page 51
20064120, Page 51
- Kirking HL
20062313, Page 16
- Kirpich A
20063523, Page 14
- Kisin ER
20062427, Page 34
- Klein AL
20063056, Page 21
- Klein R
20062710, Page 18
- Klemetti T
20061115, Page 38
20061765, Page 7
20061769, Page 38
20061885, Page 38
20062797, Page 11
20064221, Page 68
- Klemetti TM
20061221, Page 21
20061767, Page 21
20061860, Page 38
20061928, Page 38
20063180, Page 70
- Klepaker G
20063433, Page 21
- Klima S
20063600, Page 57
- Klima SS
20061422, Page 21
20063493, Page 61
20063494, Page 61
20063512, Page 61
20063513, Page 62
- Klimas N
20063318, Page 6
20063483, Page 20

- Kline K**
20062020, Page 48
20062021, Page 48
20062379, Page 76
20063085, Page 75
20063086, Page 74
- Kline KE**
20061811, Page 40
- Klopman M**
20061971, Page 22
- Knepp AK**
20064163, Page 36
- Knuth M**
20063364, Page 3
- Knuth R**
20063584, Page 50
- Kobos L**
20063304, Page 78
- Kocher L**
20063274, Page 27
- Kocher LM**
20064680, Page 17
- Kodali V**
20062262, Page 67
20064252, Page 13
- Kodali VK**
20062274, Page 69
20063449, Page 25
20063751, Page 25
- Kofman A**
20064096, Page 41
- Kogel AM**
20062935, Page 4
- Koizumi S**
20062125, Page 11
- Kokkotou E**
20063483, Page 20
- Kolton CB**
20063732, Page 9
- Kone A**
20062968, Page 5
20064089, Page 5
- Kongerud J**
20063433, Page 21
- Konrad-Martin D**
20063426, Page 26
- Koo BB**
20063483, Page 20
- Koper KD**
20061524, Page 19
- Korbach EJ**
20062910, Page 16
- Kraft CS**
20061971, Page 22
20064224, Page 22
- Krainc K**
20063912, Page 63
20063913, Page 62
- Krajnak K**
20062273, Page 70
20062334, Page 21
20063452, Page 10
- Krebs P**
20062432, Page 39
- Kreisl WC**
20061924, Page 8
- Krengel M**
20063483, Page 20
- Kretschmer MJ**
20062710, Page 18
- Kreuzer M**
20061620, Page 33
- Krider B**
20064163, Page 36
- Krieg E**
20061535, Page 13
- Krieg EF**
20062991, Page 25
- Kriss J**
20062704, Page 27
- Kriss JL**
20062255, Page 21
- Kritikos M**
20061924, Page 8
- Krueger A**
20061811, Page 40
- Krug HF**
20061695, Page 16
- Ku BK**
20062902, Page 22
- Kubale TL**
20061924, Page 8
- Kuempel E**
20062694, Page 49
- Kuempel ED**
20061695, Page 16
20062935, Page 4
- Kuhar D**
20061834, Page 31
- Kuhlman MR**
20063716, Page 12
- Kuklennyik Z**
20064384, Page 32
- Kulkarni P**
20063706, Page 40
- Kurth L**
20061802, Page 39
20061857, Page 22
20062297, Page 22
20063144, Page 9
- Käfferlein H**
20064518, Page 18
- Kühnle S**
20064518, Page 18
- La Guardia MJ**
20061228, Page 11
- Labrèche F**
20064334, Page 67
- Lacagnina MJ**
20061454, Page 22
- Ladd TB**
20062276, Page 68
20064395, Page 22
- LaFerla Jenni ME**
20062710, Page 18
- Laguerre RA**
20064363, Page 10
- Lahm PW**
20061808, Page 27
- Lainez J**
20062920, Page 47
- Laing J**
20062193, Page 20
- Lakatos A**
20062125, Page 11
- Lamade A**
20062248, Page 19
- Lamb MM**
20062843, Page 23
- Lambert L**
20062384, Page 23
20062386, Page 16
- Lampl M**
20062527, Page 20
- Lampl MP**
20063710, Page 41
- Lane MA**
20061971, Page 22
20064224, Page 22
- Laney AS**
20063187, Page 5
20064362, Page 32
- Langer AJ**
20063779, Page 78
- Laperre J**
20062843, Page 23
- Lara J**
20062022, Page 12
- Larsen M**
20064665, Page 60
- Larson MK**
20061051, Page 21
20061771, Page 20
20064697, Page 58
20062913, Page 58
- Lash L**
20064518, Page 18
- Lasley SM**
20062268, Page 69
20062271, Page 69
- Laszcz-Davis C**
20063254, Page 46
- Latts L**
20063497, Page 5
- Laurier D**
20061620, Page 33
20061965, Page 23
- Lauzardo M**
20061998, Page 3
- Lavoué J**
20064518, Page 18
- Law BF**
20061741, Page 24
20062971, Page 24
20064226, Page 23
- Lawrence RB**
20062332, Page 37
20062838, Page 33
- Laws RL**
20063998, Page 31
- Lawson C**
20062783, Page 9
- Lawson CC**
20061065, Page 27
20063175, Page 33
- Lawson H**
20063481, Page 58
20063491, Page 59
- 20063504, Page 58
20063511, Page 59
- Layer MR**
20060716, Page 20
- Layne LA**
20063247, Page 16
- Le Moual N**
20061872, Page 10
- Leapley A**
20061811, Page 40
- Leary CS**
20063193, Page 34
- LeBouf RF**
20062272, Page 68
20062372, Page 37
20062839, Page 24
20063304, Page 78
20064071, Page 31
20064163, Page 36
20064255, Page 31
- Lechlitter J**
20062548, Page 49
20064661, Page 46
- Lee BG**
20062337, Page 22
- Lee CJ**
20062125, Page 11
- Lee EG**
20061692, Page 1
20062189, Page 6
20062266, Page 69
20062996, Page 10
- Lee JR**
20061540, Page 37
- Lee JT**
20062661, Page 41
- Lee J-Y**
20063992, Page 31
- Lee T**
20060170, Page 2
20061849, Page 29
- Lee VST**
20062368, Page 36
- Lefferts EC**
20062213, Page 23
- Lemons A**
20064395, Page 22
- Lemons AR**
20061878, Page 29
20063427, Page 23
20064315, Page 8
- Lemyre J-L**
20062843, Page 23
- Lendvay TS**
20062843, Page 23
- Leonard SS**
20062372, Page 37
20063901, Page 26
- Lerman S**
20063984, Page 16
- Lerner D**
20063497, Page 5
- Lersch TL**
20064252, Page 13
- Leslie G**
20062753, Page 18
- Lessler J**
20064374, Page 8

- Leuraud K**
20061965, Page 23
- Leve F**
20061786, Page 7
- Levetin E**
20062393, Page 31
- Levin R**
20062525, Page 42
- Levin YS**
20063427, Page 23
- Levy C**
20062710, Page 18
- Lewis NM**
20062313, Page 16
20062384, Page 23
- Li C**
20061786, Page 7
- Li J**
20060851, Page 42
20061418, Page 35
20061454, Page 22
20062335, Page 4
20063135, Page 30
20064239, Page 37
- Li JF**
20063465, Page 77
20063471, Page 77
- Li L**
20063055, Page 14
- Liachenko S**
20062269, Page 68
- Liang H**
20062137, Page 19
- Liao L**
20062843, Page 23
- Licata C**
20062090, Page 13
20062587, Page 35
20062634, Page 35
- Liddelow SA**
20062125, Page 11
- Lilley R**
20060271, Page 12
- Lim S**
20062921, Page 6
- Lin C-C**
20064226, Page 23
- Lin H**
20060173, Page 42
20062746, Page 42
- Lin Y-C**
20062843, Page 23
- Lin YL**
20062843, Page 23
- Lincoln JE**
20061094, Page 6
20063395, Page 73
20063396, Page 73
- Lindberg JE**
20062839, Page 24
- Lindquist S**
20062955, Page 4
- Lindsey N**
20062090, Page 13
- Lindsay WG**
20061741, Page 24
20061971, Page 22
20062030, Page 4
20062061, Page 29
20062128, Page 28
20062971, Page 24
20063015, Page 24
20063034, Page 24
20064224, Page 22
20064315, Page 8
- Link-Gelles R**
20062661, Page 41
- Liou YL**
20063823, Page 24
- Lipton B**
20062955, Page 4
- Liszewski W**
20063823, Page 24
- Littau S**
20062391, Page 14
20063949, Page 14
- Liu R**
20062090, Page 13
20062587, Page 35
20062634, Page 35
- Lloyd G**
20062968, Page 5
20064089, Page 5
- Lloyd S**
20062313, Page 16
- Lockman PR**
20063056, Page 21
- Loflin M**
20062020, Page 48
20062021, Page 48
20062182, Page 48
- Loflin ME**
20062379, Page 76
20064091, Page 75
- Logan P**
20063254, Page 46
- Loggia ML**
20063483, Page 20
- Long S**
20063732, Page 9
- Lopes-Cardozo B**
20062968, Page 5
20064089, Page 5
- Lopez RM**
20063439, Page 26
- Lorca S**
20061454, Page 22
- Loring D**
20063587, Page 57
- Los J**
20062124, Page 24
- Louk AK**
20064161, Page 52
- Louzado Feliciano P**
20063526, Page 36
- Love M**
20063655, Page 31
- Lowe B**
20061959, Page 45
- Lu M-L**
20062196, Page 36
20063955, Page 40
- Lu P j**
20064360, Page 28
- Lucas DL**
20061540, Page 37
- Lucas SN**
20063470, Page 42
- Luckhaupt S**
20063231, Page 38
- Luckhaupt SE**
20061205, Page 34
20062083, Page 4
20062193, Page 20
20062955, Page 4
- Ludwig-Begall LF**
20062843, Page 23
- Luensman GB**
20063844, Page 51
- Luft BJ**
20061924, Page 8
- Lukomska E**
20062267, Page 67
20063484, Page 40
20064257, Page 3
- Lum M**
20063239, Page 46
- Lumen A**
20064518, Page 18
- Lunn RM**
20059863, Page 1
- Luo L**
20062991, Page 25
- Luo Q**
20061855, Page 24
- Luo Y**
20062238, Page 19
20063592, Page 58
- Lutz EA**
20062368, Page 36
- Luxbacher G**
20061959, Page 45
- Lybrand E**
20061122, Page 38
20064117, Page 51
20064120, Page 51
- Lykken J**
20062124, Page 24
- Lyman M**
20061834, Page 31
- Lynch C**
20061535, Page 13
- Lynch I**
20061695, Page 16
- Lynfield R**
20062921, Page 6
20062968, Page 5
20064089, Page 5
- Lyon SM**
20060846, Page 12
- Ma CC**
20061321, Page 15
- Macia N**
20062843, Page 23
- MacInnis B**
20063187, Page 5
- Mackie CJ**
20062843, Page 23
- MacVicar BA**
20062125, Page 11
- Madoff LC**
20063187, Page 5
- Magill SS**
20062921, Page 6
- Magistretti P**
20062125, Page 11
- Mahapatra I**
20061695, Page 16
- Maier A**
20064061, Page 28
- Maiti CJ**
20063754, Page 59
- Majors M**
20063497, Page 5
- Majumder N**
20063449, Page 25
20063751, Page 25
- Makra L**
20062393, Page 31
- Maldin B**
20063135, Page 30
- Mallampalli RK**
20062248, Page 19
- Malott R**
20062843, Page 23
- Mancuso M**
20063497, Page 5
- Mandler KW**
20062272, Page 68
- Manley T**
20063485, Page 57
20063506, Page 57
- Marceaux-Galli K**
20062921, Page 6
- Marcus M**
20062755, Page 13
- Marion JW**
20062104, Page 18
- Mark C**
20061773, Page 42
- Markkanen P**
20062195, Page 25
- Markkanen PK**
20062839, Page 24
- Markowitz L**
20062090, Page 13
- Marovich S**
20063135, Page 30
- Marquez P**
20062090, Page 13
20062587, Page 35
- Marquez PL**
20062634, Page 35
- Marsh S**
20062020, Page 48
20062021, Page 48
- Marshall K**
20062921, Page 6
- Marshall NB**
20064257, Page 3
- Marston CK**
20063732, Page 9

- Martin GR**
20063461, Page 2
- Martin S**
20062090, Page 13
20064163, Page 36
- Martin SB**
20061799, Page 33
- Martin SB Jr**
20062128, Page 28
20063015, Page 24
20063779, Page 78
20064315, Page 8
- Martin SW**
20062634, Page 35
- Martinez MC**
20063437, Page 12
- Martz N**
20061811, Page 40
- Masalovich S**
20064362, Page 32
- Mastalerz M**
20063491, Page 59
20063511, Page 59
- Masterson EA**
20063699, Page 14
- Matas CG**
20062942, Page 34
- Matheson J**
20062272, Page 68
- Matsumoto M**
20064518, Page 18
- Matthews TJ**
20064713, Page 55
- Mattock H**
20064518, Page 18
- Matz M**
20061535, Page 13
- May AC**
20063658, Page 30
- Mayer A**
20061228, Page 11
20062078, Page 20
20062648, Page 49
- Mayer AC**
20062978, Page 25
- Mayer O**
20062753, Page 18
- Mayo M**
20062843, Page 23
- Mayton AG**
20063909, Page 25
- Mazurek JM**
20061857, Page 22
20063275, Page 37
- Mazzella A**
20062259, Page 32
20063493, Page 61
20063494, Page 61
20063512, Page 61
20063513, Page 62
- Mazzella AL**
20060170, Page 2
20061422, Page 21
- Mba-Jonas A**
20062634, Page 35
- Mbuyi G**
20064096, Page 41
- McCain K**
20062661, Page 41
- McCarthy RB**
20063439, Page 26
- McClain C**
20062838, Page 33
20063031, Page 42
- McClelland TL**
20062128, Page 28
- McCormick S**
20062937, Page 25
- McCraw HM**
20062753, Page 18
- McCullough K**
20062921, Page 6
- McDaniel M**
20063038, Page 12
- McDermott BP**
20063439, Page 26
- McDougall V**
20064355, Page 17
- McDowell TW**
20060173, Page 42
20062746, Page 42
- McGrath JA**
20062755, Page 13
- McGreevy K**
20062193, Page 20
- McKenzie EA Jr**
20062657, Page 4
- McKinney W**
20062262, Page 67
20062272, Page 68
20062273, Page 70
- McKinney WG**
20061692, Page 1
20062210, Page 19
20063034, Page 24
20064315, Page 8
- McKnight-Eily L**
20062847, Page 15
20063661, Page 19
- McLafferty M**
20061811, Page 40
- McLain AC**
20062430, Page 28
20064308, Page 41
- McMichael TM**
20063998, Page 31
- McQuerry ML**
20063439, Page 26
- McQuiston JR**
20063732, Page 9
- Mead KR**
20062128, Page 28
20062946, Page 71
20062947, Page 71
20062948, Page 72
20062949, Page 71
20062950, Page 72
20062951, Page 72
20063015, Page 24
20064315, Page 8
- Meadows J**
20064213, Page 28
- Meadows JW**
20062755, Page 13
- Meaney-Delman DM**
20062634, Page 35
- Meek J**
20062921, Page 6
- Mehta SS**
20059863, Page 1
- Meier F**
20061786, Page 7
- Meier HCS**
20061528, Page 35
- Meighan T**
20062274, Page 69
- Meighan TG**
20062262, Page 67
- Melstrom P**
20060716, Page 20
- Mennella C**
20062525, Page 42
- Menéndez CC**
20062247, Page 9
- Mercante JW**
20061799, Page 33
- Mercer RR**
20064252, Page 13
- Merinar T**
20062379, Page 76
- Merinar TR**
20063085, Page 75
20063086, Page 74
- Messing A**
20062125, Page 11
- Methner MM**
20061967, Page 78
- Meyers AR**
20062527, Page 20
20062991, Page 25
20063710, Page 41
- Miano J**
20063307, Page 59
- Michael KL**
20063281, Page 45
- Michalovicz LT**
20062268, Page 69
20062271, Page 69
20063318, Page 6
20063715, Page 25
- Middleton DRS**
20064518, Page 18
- Mielke MM**
20061924, Page 8
- Mietchen D**
20063268, Page 26
- Milder CM**
20062832, Page 14
- Miles S**
20062182, Page 48
20063085, Page 75
20063086, Page 74
- Miles ST**
20061829, Page 76
20063286, Page 73
- Millen AE**
20063238, Page 38
- Miller A**
20062708, Page 61
20063514, Page 61
- Miller AL**
20062655, Page 30
- Miller BF**
20062921, Page 6
- Miller C**
20063638, Page 8
20064224, Page 22
- Miller DB**
20062268, Page 69
20062271, Page 69
20063715, Page 25
- Miller J**
20062127, Page 34
20064128, Page 69
- Miller T**
20061850, Page 11
20061861, Page 11
20064132, Page 68
- Mills D**
20063497, Page 5
- Milne AT**
20062313, Page 16
- Minoski T**
20061527, Page 35
20064130, Page 69
20064704, Page 64
- Miranda-Filho A**
20064518, Page 18
- Mischler SE**
20063573, Page 56
- Mishra A**
20062125, Page 11
- Miura SS**
20062193, Page 20
- Mizakoff B**
20060170, Page 2
20061249, Page 36
20062432, Page 39
- Mnatsakanova A**
20063238, Page 38
20063700, Page 39
20063901, Page 26
- Mohamed K**
20061766, Page 26
20061772, Page 32
20063488, Page 59
20063508, Page 59
20064705, Page 63
20064714, Page 60
- Mohamed KM**
20064462, Page 63
- Moissonnier M**
20061965, Page 23
- Molloy-Simard V**
20062843, Page 23
- Molofsky AV**
20062125, Page 11
- Montañez-Báez E**
20062122, Page 2
- Monteilh C**
20062755, Page 13
- Moore KJ**
20063912, Page 63
20063913, Page 62
- Moore MJ**
20061811, Page 40

- Moore SM**
 20060453, Page 14
 20063235, Page 15
 20064751, Page 52
 20064052, Page 15
- Moorehead A**
 20064521, Page 63
- Morata T**
 20063268, Page 26
- Morata TC**
 20060851, Page 42
 20062942, Page 34
 20063055, Page 14
 20063270, Page 69
 20063426, Page 26
 20063825, Page 6
 20063908, Page 26
- Mores CN**
 20062843, Page 23
- Moro PL**
 20062634, Page 35
- Morris AM**
 20063901, Page 26
- Morrissey MC**
 20063439, Page 26
 20063703, Page 26
- Morson T**
 20063493, Page 61
 20063512, Page 61
- Moscatel S**
 20061535, Page 13
- Mosites E**
 20063998, Page 31
- Mostovenko E**
 20062664, Page 27
 20063470, Page 42
 20063911, Page 26
- Mubareka S**
 20062061, Page 29
- Muilenburg JL**
 20061998, Page 3
- Mukherjee SP**
 20062427, Page 34
- Muldoon PP**
 20062664, Page 27
- Mumaw CL**
 20062276, Page 68
 20064395, Page 22
- Mundschenk P**
 20062710, Page 18
- Murai KK**
 20062125, Page 11
- Murashov V**
 20061959, Page 45
 20063582, Page 27
- Murphy J**
 20061811, Page 40
- Murphy M**
 20061527, Page 35
 20064130, Page 69
 20064711, Page 61
- Murphy MM**
 20062126, Page 32
 20064131, Page 69
- Murphy SK**
 20062386, Page 16
- Murphy W**
 20063874, Page 60
 20063877, Page 60
 20063879, Page 60
 20063882, Page 60
- Murphy WJ**
 20060851, Page 42
 20063321, Page 36
- Murthy BP**
 20062264, Page 18
 20062661, Page 41
 20062704, Page 27
- Murthy N**
 20062704, Page 27
- Musial T**
 20062264, Page 18
- Mustafa GM**
 20062274, Page 69
- Muñoz-Quezada MT**
 20064518, Page 18
- Myers C**
 20062921, Page 6
- Myers J**
 20063600, Page 57
- Myers T**
 20062090, Page 13
- Myers TR**
 20062587, Page 35
 20062634, Page 35
- Naber SJ**
 20062834, Page 1
 20063710, Page 41
- Nachman RM**
 20059863, Page 1
- Nadle J**
 20062921, Page 6
- Nahorniak J**
 20063044, Page 27
- Nahorniak JS**
 20063118, Page 10
- Nair N**
 20062090, Page 13
- Nakata A**
 20063667, Page 47
- Nakazawa Y**
 20062313, Page 16
- Nasarwanji M**
 20064665, Page 60
 20064680, Page 17
- Nasarwanji MF**
 20063274, Page 27
- Nassan FL**
 20061065, Page 27
- National Birth Defects Prevention Study**
 20062554, Page 34
- Naum CJ**
 20064091, Page 75
- Nauwynck H**
 20062843, Page 23
- Navarro KM**
 20061808, Page 27
 20063193, Page 34
 20063580, Page 28
 20064217, Page 27
- Neatherlin JC**
 20064213, Page 28
- Negrut D**
 20061786, Page 7
- Negrón ME**
 20063732, Page 9
- Nematollahi A**
 20063949, Page 14
- Nemoto N**
 20064213, Page 28
- Nett RJ**
 20061781, Page 28
 20061998, Page 3
 20063102, Page 9
- Neu DT**
 20062128, Page 28
- Neu-Baker NM**
 20062526, Page 36
 20063090, Page 28
- Nevels TL**
 20062430, Page 28
- Newbraugh B**
 20064355, Page 17
- Newman H**
 20060564, Page 17
- Nguyen KH**
 20064360, Page 28
 20064362, Page 32
- Nguyen LH**
 20063175, Page 33
- Nguyen VT**
 20063825, Page 6
- Niang M**
 20062937, Page 25
- Nichol ST**
 20064096, Page 41
- Nichols MD**
 20063483, Page 20
- Nickerson H**
 20062708, Page 61
 20063514, Page 61
- Niemeier RT**
 20062813, Page 13
 20064061, Page 28
- Niemeier-Walsh C**
 20063102, Page 9
- Niezgoda G**
 20062145, Page 30
 20062503, Page 37
- Nimbarte A**
 20063188, Page 35
- Ning X**
 20061163, Page 29
- NIOSH**
 20062298, Page 49
 20062328, Page 53
 20062478, Page 47
 20062871, Page 49
 20063152, Page 53
 20063153, Page 53
 20063218, Page 54
 20063222, Page 54
 20063223, Page 54
 20063224, Page 53
 20063225, Page 54
 20063310, Page 48
 20063381, Page 53
 20063382, Page 53
 20063383, Page 53
 20064093, Page 47
- Njai R**
 20063661, Page 19
- Noll J**
 20061849, Page 29
- Noll JD**
 20063608, Page 60
- Noonan CW**
 20063193, Page 34
- Norris CM**
 20062125, Page 11
- North K**
 20062548, Page 49
 20064661, Page 46
- Noti JD**
 20061741, Page 24
 20062030, Page 4
 20062061, Page 29
 20062905, Page 29
 20062971, Page 24
 20063015, Page 24
 20063034, Page 24
 20064315, Page 8
- Novakovich J**
 20062548, Page 49
 20063268, Page 26
 20064661, Page 46
- Novicki E**
 20064242, Page 52
- Nugent G**
 20063056, Page 21
- Nurkiewicz T**
 20062971, Page 24
 20063751, Page 25
- Nurkiewicz TR**
 20063449, Page 25
- Nuvangyaoma TL**
 20062753, Page 18
- NYC Serosurvey Team**
 20063135, Page 30
- Nykanen M**
 20061973, Page 29
- Nyquist A-C**
 20062124, Page 24
 20063091, Page 3
 20063291, Page 35
 20063523, Page 14
 20064374, Page 8
- O'Callaghan JP**
 20061454, Page 22
 20062125, Page 11
 20062268, Page 69
 20062269, Page 68
 20062271, Page 69
 20063318, Page 6
 20063483, Page 20
 20063715, Page 25
- O'Dell K**
 20063580, Page 28
- O'Leary PK**
 20063691, Page 5
- O'Reilly MV**
 20063253, Page 46
 20063254, Page 46
- O'Sullivan B**
 20063732, Page 9
- Oakeson K**
 20062313, Page 16
- Oakman J**
 20063437, Page 12

- Ocampo VLS**
20062921, Page 6
- Ochs-Balcom HM**
20063238, Page 38
- Oduyebo T**
20062634, Page 35
- Okada S**
20062125, Page 11
- Okun A**
20064360, Page 28
- Okun AH**
20061638, Page 2
20062847, Page 15
20063661, Page 19
- Oliet SHR**
20062125, Page 11
- Oliveira JF**
20062125, Page 11
- Oliveri A**
20062193, Page 20
- Olson CK**
20062634, Page 35
- Ong SP**
20062972, Page 7
- Onyije FM**
20064518, Page 18
- Orandle M**
20062266, Page 69
20062272, Page 68
20064252, Page 13
- Orandle MS**
20062210, Page 19
- Orleans B**
20062313, Page 16
- Ormond RB**
20062078, Page 20
- Orquiola D**
20062968, Page 5
20064089, Page 5
- Orr TJ**
20062184, Page 3
- Orris P**
20062525, Page 42
- Ortbahn D**
20061811, Page 40
- Ortiz-Jurado K**
20061998, Page 3
- Osborne J**
20063601, Page 17
- Osborne JC**
20063455, Page 29
- OSHA-NIOSH**
20063177, Page 50
- Ospina M**
20061228, Page 11
20062978, Page 25
- Othumpangat S**
20062061, Page 29
20062905, Page 29
- Ottens AK**
20062664, Page 27
20063470, Page 42
20063911, Page 26
- Owens-Gary M**
20063428, Page 20
- Page K**
20062843, Page 23
- Pal TM**
20061774, Page 16
- Pallickaparambil AJ**
20062955, Page 4
- Pan CS**
20061163, Page 29
20061387, Page 29
20061640, Page 41
20064521, Page 63
- Pana-Cryan R**
20062331, Page 32
20064133, Page 2
20064242, Page 52
- Panagiotakopoulos L**
20062634, Page 35
- Panattier A**
20062125, Page 11
- Pandalai SP**
20062628, Page 49
- Pardo ID**
20062269, Page 68
- Parish M**
20063903, Page 15
- Park DJ**
20063187, Page 5
- Park HD**
20062996, Page 10
- Park J-H**
20061878, Page 29
20062337, Page 22
20063102, Page 9
- Park RM**
20061859, Page 29
20062749, Page 30
20062889, Page 30
- Parker R**
20062843, Page 23
- Parker-Vega A**
20062839, Page 24
- Parks D**
20062708, Page 61
20063514, Page 61
- Parks DA**
20062655, Page 30
- Parks N**
20063526, Page 36
- Parpura V**
20062125, Page 11
- Patel A**
20062661, Page 41
20062704, Page 27
- Patel AN**
20062843, Page 23
- Patel JR**
20061774, Page 16
- Patenaude RE**
20062479, Page 65
- Pathela P**
20063135, Page 30
- Patts JR**
20064161, Page 52
- Paule MG**
20062269, Page 68
- Pedati CS**
20061811, Page 40
- Pekna M**
20062125, Page 11
- Pekny M**
20062125, Page 11
- Pellerin L**
20062125, Page 11
- Pena SA**
20062921, Page 6
- Penna AR**
20062921, Page 6
- Pentella MA**
20062979, Page 8
- Perea G**
20062125, Page 11
- Perera IE**
20061949, Page 30
20062594, Page 30
20063480, Page 55
20063503, Page 55
20063600, Page 57
- Perkins AV**
20061998, Page 3
- Perl TM**
20062124, Page 24
20063091, Page 3
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Perlmutter R**
20062921, Page 6
- Persson KA**
20062972, Page 7
- Peskind ER**
20061924, Page 8
- Peters C**
20064518, Page 18
- Peters S**
20063573, Page 56
- Peters SE**
20062195, Page 25
- Petery GA**
20063437, Page 12
20064363, Page 10
- Petrun Sayers EL**
20062400, Page 48
20062717, Page 48
- Petzold GC**
20062125, Page 11
- Pfrieger FW**
20062125, Page 11
- Phipps EC**
20062921, Page 6
- Piacentino JD**
20061205, Page 34
20062731, Page 34
- Pierce R**
20062921, Page 6
- Pierson J**
20062269, Page 68
- Pimentel LC**
20063658, Page 30
- Pingali C**
20062661, Page 41
- Pinkerton LE**
20064217, Page 27
- Pirkle JL**
20064384, Page 32
- Pissano A**
20062145, Page 30
- Pitisladis Y**
20063439, Page 26
- Pogosjans S**
20062955, Page 4
- Pollard J**
20063274, Page 27
20064665, Page 60
- Pollard JP**
20064161, Page 52
20064680, Page 17
- Pomeroy M**
20063307, Page 59
- Popkin S**
20063437, Page 12
- Poplin G**
20061306, Page 33
- Popp C**
20062391, Page 14
20063949, Page 14
- Porter D**
20063056, Page 21
- Portnoff L**
20062145, Page 30
- Poskanzer KE**
20062125, Page 11
- Post M**
20061689, Page 17
- Potts JD**
20063594, Page 65
20063608, Page 60
- Powell J**
20063276, Page 63
- Powell JA**
20062386, Page 16
- Powell MJ**
20062262, Page 67
- Powers JR Jr**
20062657, Page 4
- Pratap P**
20063655, Page 31
- Pratt C**
20063497, Page 5
- Pratt S**
20063984, Page 16
- Pratt SG**
20061094, Page 6
- Pray IW**
20061811, Page 40
- Prestel C**
20061834, Page 31
- Pretty J**
20062946, Page 71
20062947, Page 71
20062948, Page 72
20062949, Page 71
20062950, Page 72
20062951, Page 72
20064163, Page 36
- Prezant DJ**
20063478, Page 40
- Price A**
20062384, Page 23
20062843, Page 23

- Price CS
20062124, Page 24
20063091, Page 3
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Pringle JC
20061811, Page 40
- Prins C
20061998, Page 3
- Pronk NP
20063497, Page 5
- Prue CE
20061638, Page 2
- Pryor RR
20063439, Page 26
- Public Health —
Seattle & King County
Analytics and
Informatics Team
20062955, Page 4
- Public Health—Seattle
& King County
COVID-19
Community
Investigation Team
20062955, Page 4
- Pun E
20062264, Page 18
- Purdin J
20063135, Page 30
- Purdue M
20064518, Page 18
- Putz-Anderson V
20063303, Page 47
- Pérez-Nievas BG
20062125, Page 11
- Qi C
20062137, Page 19
20062272, Page 68
20062944, Page 71
20063474, Page 31
20063863, Page 71
- Qian Y
20062137, Page 19
20062272, Page 68
- Qiang L
20063483, Page 20
- Qiu W
20060851, Page 42
20063055, Page 14
20063877, Page 60
20063882, Page 60
- Qualters J
20062661, Page 41
- Qualters JR
20062704, Page 27
- Quay B
20063878, Page 41
- Quay M
20063483, Page 20
- Quinn E
20063483, Page 20
- Quinn MM
20062839, Page 24
- Quinn T
20063703, Page 26
- Quinn TD
20062281, Page 31
20062490, Page 1
20063992, Page 31
- Quintana FJ
20062125, Page 11
- Rabin BA
20063903, Page 15
- Radcliffe R
20061811, Page 40
- Radcliffe RT Jr
20063254, Page 46
- Radke EG
20059863, Page 1
- Radonovich L
20061641, Page 41
- Radonovich LJ
20062731, Page 34
20063291, Page 35
20063523, Page 14
- Radonovich LJ Jr
20061205, Page 34
20062124, Page 24
20063091, Page 3
20064374, Page 8
- Radwin RG
20063955, Page 40
- Rafinski J
20062525, Page 42
- Rage E
20061620, Page 33
- Ragsdale T
20064052, Page 15
- Rahman MM
20063188, Page 35
- Raj KV
20061281, Page 18
20062654, Page 68
- Raj V
20062708, Page 61
20063514, Page 61
- Rajamaki B
20061858, Page 39
- Rajotte JC
20061811, Page 40
- Ramirez-Cardenas A
20063231, Page 38
20064217, Page 27
- Ramon GD
20062393, Page 31
- Ramsey JG
20062991, Page 25
- Rangel Gómez MG
20062022, Page 12
- Ranpara A
20062272, Page 68
20062372, Page 37
20063304, Page 78
20064071, Page 31
20064255, Page 31
- Ransohoff RM
20062125, Page 11
- Rao AK
20062955, Page 4
- Rao CY
20062968, Page 5
20063998, Page 31
20064089, Page 5
- Raspberry L
20063268, Page 26
- Rashed G
20061527, Page 35
20061766, Page 26
20061772, Page 32
20062126, Page 32
20062127, Page 34
20064128, Page 69
20064130, Page 69
20064131, Page 69
20064711, Page 61
20064714, Page 60
- Raskind MA
20061924, Page 8
- Rattigan S
20062124, Page 24
20063091, Page 3
- Rattigan SM
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Rawal AX
20062910, Page 16
- Ray T
20062005, Page 3
20064242, Page 52
- Ray TK
20062331, Page 32
20064053, Page 32
- Raymick J
20062269, Page 68
- Rayyan NS
20063143, Page 2
- Razzaghi H
20064360, Page 28
20064362, Page 32
- Reader S
20062843, Page 23
- Reagan-Steiner S
20060716, Page 20
- Redinger CF
20063253, Page 46
- Reed WR
20061296, Page 32
20061422, Page 21
20062259, Page 32
20062791, Page 70
20063493, Page 61
20063494, Page 61
20063512, Page 61
20063513, Page 62
20063594, Page 65
20063608, Page 60
- Reefhuis J
20062554, Page 34
- Rees JC
20064384, Page 32
- Rehr J
20062972, Page 7
- Reich N
20062124, Page 24
20063291, Page 35
- Reich NG
20063091, Page 3
20064374, Page 8
- Reichard JF
20064061, Page 28
- Reid CE
20061808, Page 27
- Reindel AA
20062710, Page 18
- Reis GB
20064384, Page 32
- Reischl U
20061640, Page 41
- Reisfeld B
20064518, Page 18
- Reissman DB
20061924, Page 8
20063461, Page 2
- Ren B
20061501, Page 5
- Rengasamy S
20062035, Page 39
20062145, Page 30
20062443, Page 32
20062838, Page 33
- ResPECT Study Team
20062124, Page 24
20063291, Page 35
- Retzer K
20061306, Page 33
- Reuss V
20062548, Page 49
20064661, Page 46
- Reyes M
20063482, Page 57
20063487, Page 65
20063489, Page 57
20063505, Page 56
20063507, Page 65
20063509, Page 57
- Reyes MA
20062714, Page 63
- Reynolds JS
20063034, Page 24
20064315, Page 8
- Reynolds L
20062245, Page 77
20062264, Page 18
20062661, Page 41
20062704, Page 27
20062710, Page 18
20063933, Page 77
- Reynolds LE
20062255, Page 21
- Rhea C
20061811, Page 40
- Rice KC
20061454, Page 22
- Rich-Edwards J
20062783, Page 9
- Rich-Edwards JW
20061065, Page 27
20063175, Page 33
- Richards M
20061924, Page 8
- Richards R
20063651, Page 17
20063752, Page 8
- Richardson DB
20061620, Page 33
20061965, Page 23
- Richardson G
20062193, Page 20
- Ridenour ML
20062151, Page 4

- Riedy SM
20062394, Page 33
- Riethmeister V
20063984, Page 16
- Riggs MA
20061998, Page 3
- Righetti L
20061786, Page 7
- Riley FD
20061535, Page 13
- Ringel JB
20064239, Page 37
- Rinsky J
20063933, Page 77
- Rinsky JL
20062193, Page 20
20063231, Page 38
- Riquelme-Perez M
20062125, Page 11
- Rishi K
20063985, Page 5
- Risk I
20062313, Page 16
20062384, Page 23
- Rispens JR
20061799, Page 33
- Ritchev MD
20062255, Page 21
20062264, Page 18
20062661, Page 41
20062704, Page 27
- Ritter T
20061799, Page 33
- Rivera M
20061834, Page 31
- Roach K
20062266, Page 69
- Roach KA
20062262, Page 67
20062274, Page 69
- Robel S
20062125, Page 11
- Roberge RL
20062517, Page 33
- Roberts G
20063494, Page 61
20063513, Page 62
- Roberts J
20063364, Page 3
- Roberts JR
20062210, Page 19
20062262, Page 67
20062274, Page 69
20062694, Page 49
- Roberts R
20062269, Page 68
- Robertson S
20062978, Page 25
- Robins DC
20063710, Page 41
- Robinson C
20062920, Page 47
- Robinson T
20061306, Page 33
20063998, Page 31
- Rocheleau C
20062783, Page 9
- Rocheleau CM
20061065, Page 27
20062554, Page 34
20063175, Page 33
20063583, Page 19
- Rockwell B
20064355, Page 17
- Rodriguez Lainz A
20062022, Page 12
- Rodriguez A
20061786, Page 7
- Rodriguez AR
20063321, Page 36
- Rodriguez CJ
20062122, Page 2
- Rodriguez-Barradas M
20062124, Page 24
- Rodriguez-Barradas MC
20063091, Page 3
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Rogers B
20063718, Page 33
- Roggli VL
20062910, Page 16
- Rogstad S
20062269, Page 68
- Rohlman DS
20063903, Page 15
- Rojanasakul L
20061501, Page 5
20062266, Page 69
- Rola M
20062708, Page 61
20063514, Page 61
- Romano N
20063395, Page 73
20063396, Page 73
- Romero-Steiner S
20062022, Page 12
- Ronaghi M
20061640, Page 41
20064355, Page 17
- Rosales C
20062022, Page 12
- Rose C
20062704, Page 27
20062968, Page 5
20064089, Page 5
- Rose CE
20061811, Page 40
- Rose CR
20062125, Page 11
- Rose DA
20061811, Page 40
20062255, Page 21
- Rose MA
20062753, Page 18
- Rose WB
20062479, Page 65
- Roseman J
20061878, Page 29
- Rosenberg AJ
20062213, Page 23
- Ross G
20061296, Page 32
20063493, Page 61
20063494, Page 61
20063512, Page 61
20063513, Page 62
- Roth G
20062694, Page 49
- Rothstein JD
20062125, Page 11
- Rottach D
20061641, Page 41
- Rottach DR
20063031, Page 42
- Rouach N
20062125, Page 11
- Rovelli S
20063030, Page 12
- Rowitch DH
20062125, Page 11
- Rowland J
20062306, Page 70
20063599, Page 62
- Rowland JH III
20061420, Page 33
- Ruff T
20064242, Page 52
- Ruotsalainen JH
20061858, Page 39
- Ruser J
20063601, Page 17
- Rush M
20063364, Page 3
- Russ KA
20062272, Page 68
- Rutter C
20063587, Page 57
- Ryan ME
20062184, Page 3
- Sabo RT
20063187, Page 5
- Sadowski JP
20063268, Page 26
20063825, Page 6
- Sager TM
20062210, Page 19
- Sahni J
20062843, Page 23
- Salako J
20063478, Page 40
- Salazar R
20063470, Page 42
- Salerno RM
20062979, Page 8
- Salmanson AP
20062384, Page 23
- Salzer JS
20063732, Page 9
- Sama SR
20062839, Page 24
- Samala U
20062525, Page 42
- Samelli A
20063908, Page 26
- Samelli AG
20062942, Page 34
- Samet J
20061620, Page 33
- Sami S
20063187, Page 5
- Sammarco J
20061959, Page 45
- Sammarco JJ
20062139, Page 34
20063883, Page 3
- Sammons D
20062978, Page 25
20064217, Page 27
- Samper M
20062921, Page 6
- Sampsel D
20061535, Page 13
- Sanchez E
20063497, Page 5
- Sanderson W
20062554, Page 34
- Sandhu P
20062979, Page 8
- Sandler DP
20062755, Page 13
- Sanford SJ
20062955, Page 4
- Sano M
20061924, Page 8
- Santiago KM
20063526, Page 36
- Santiago-Colón A
20061924, Page 8
20062554, Page 34
20063461, Page 2
- Santisteban A
20063992, Page 31
- Sapko MJ
20061949, Page 30
20062594, Page 30
- Saunders R
20062054, Page 75
- Saunders S
20062664, Page 27
- Sauni R
20061858, Page 39
- Sauter DL
20062597, Page 2
- Sauter SL
20062400, Page 48
20062597, Page 2
20062717, Page 48
- Sbarra D
20062145, Page 30
20062443, Page 32
- Scala G
20062427, Page 34
- Schaeffer TL
20062386, Page 16
- Schafer IJ
20062710, Page 18
- Schall J
20063272, Page 50
20063409, Page 50
20063534, Page 50
20063884, Page 50
20064161, Page 52

Author Index

- Schatzel S
20062389, Page 40
- Schatzel SJ
20063604, Page 55
20064712, Page 58
- Scheftel J
20061811, Page 40
- Schill AL
20063651, Page 17
20063718, Page 33
- Schlader ZJ
20063439, Page 26
- Schlarbaum JP
20063192, Page 21
- Schleiff P
20061857, Page 22
- Scholl JC
20062527, Page 20
20063428, Page 20
- Scholtz FEM
20062843, Page 23
- Schrodt CA
20063732, Page 9
- Schubauer-Berigan MK
20061620, Page 33
20061965, Page 23
20063911, Page 26
20064252, Page 13
20064518, Page 18
- Schubert PL
20063187, Page 5
- Schulte PA
20061205, Page 34
20062628, Page 49
20062731, Page 34
20063038, Page 12
20063437, Page 12
20063582, Page 27
20063655, Page 31
- Schumacher P
20062920, Page 47
- Schumacher PK
20063135, Page 30
- Schwartz N
20062313, Page 16
- Schwingl P
20059863, Page 1
- Schwitters A
20062384, Page 23
20062386, Page 16
- Sears MM
20061766, Page 26
20062126, Page 32
20062127, Page 34
20062797, Page 11
20064128, Page 69
20064131, Page 69
20064221, Page 68
20064704, Page 64
- See M
20062128, Page 28
- Segaloff HE
20062386, Page 16
- Sehongva G
20062753, Page 18
- Semmens EO
20063193, Page 34
- Semyanov A
20062125, Page 11
- Sen P
20063580, Page 28
- Seo JY
20062193, Page 20
- Seo Y
20062281, Page 31
- Serrano-Pozo A
20062125, Page 11
- Service S
20062746, Page 42
20063700, Page 39
- Seshadri S
20062921, Page 6
- Shabaz M
20062359, Page 75
- Shaffer RE
20062503, Page 37
- Shah D
20062968, Page 5
20064089, Page 5
- Shahan M
20061296, Page 32
- Shahan MR
20062259, Page 32
20063608, Page 60
- Shane H
20062266, Page 69
20062267, Page 67
- Shane HL
20063484, Page 40
20064257, Page 3
- Shapiro J
20061998, Page 3
- Sharpe JD
20062264, Page 18
- Shatkin JA
20061695, Page 16
- Shaw L
20062704, Page 27
- Shaw LK
20062255, Page 21
- Shaw S
20061535, Page 13
- Shay DK
20062587, Page 35
- Sheikh NN
20062839, Page 24
- Sherman JH
20063056, Page 21
- Shimabukuro T
20062090, Page 13
- Shimabukuro TT
20062587, Page 35
20062634, Page 35
- Shockey AC
20062386, Page 16
- Shockey TM
20061702, Page 35
- Shoeb M
20061528, Page 35
20062262, Page 67
20062274, Page 69
- Shrivastava IH
20062248, Page 19
- Shugart A
20061834, Page 31
- Shugart J
20063680, Page 45
- Shvedova AA
20062248, Page 19
20062427, Page 34
- Siddle KJ
20063187, Page 5
- Sieber WK
20061094, Page 6
- Siegel M
20061799, Page 33
20062648, Page 49
- Siegel MR
20062813, Page 13
- Siegel PD
20062994, Page 7
20063192, Page 21
20063823, Page 24
- Sierra Medal IR
20062022, Page 12
- Sievers M
20062921, Page 6
- Silva-Junior JS
20063437, Page 12
- Silver SR
20061418, Page 35
20062335, Page 4
20064239, Page 37
- Sim M
20060271, Page 12
- Simberkoff M
20062124, Page 24
- Simberkoff MS
20063091, Page 3
20063291, Page 35
20063523, Page 14
20064374, Page 8
- Simeonov P
20063188, Page 35
- Simmons SM
20062843, Page 23
- Simons J
20061641, Page 41
- Simpson E
20062276, Page 68
20064395, Page 22
- Singh A
20063478, Page 40
- Singh K
20061296, Page 32
- Singleton JA
20062255, Page 21
20062661, Page 41
20064360, Page 28
20064362, Page 32
- Sinsel E
20063034, Page 24
- Sinsel EW
20062893, Page 10
20064315, Page 8
- Siordia C
20062020, Page 48
20062021, Page 48
- Sirinterlikci A
20064163, Page 36
- Sirko S
20062125, Page 11
- Siven J
20063307, Page 59
- Sjodin A
20062978, Page 25
- Skerker M
20063478, Page 40
- Slaker B
20061527, Page 35
20061861, Page 11
20062126, Page 32
20062127, Page 34
20064128, Page 69
20064130, Page 69
20064131, Page 69
20064711, Page 61
- Sleet DA
20058495, Page 15
- Slikker WJr
20062269, Page 68
- Slitt AL
20063949, Page 14
- Sloan RP
20061924, Page 8
- Slone J
20061228, Page 11
- Smalt CJ
20063321, Page 36
- Smit SJ
20062843, Page 23
- Smith A
20064122, Page 51
- Smith AR
20062313, Page 16
- Smith CJ
20063439, Page 26
- Smith D
20062526, Page 36
- Smith DL
20060564, Page 17
20062078, Page 20
20062213, Page 23
20062978, Page 25
20063439, Page 26
20064217, Page 27
- Smith J
20061809, Page 7
- Smith MB
20062525, Page 42
- Smith PM
20060271, Page 12
20062281, Page 31
- Smith S
20063263, Page 45
- Smoots AN
20062634, Page 35
- Snawder J
20061809, Page 7
20062183, Page 7
20063364, Page 3
20063706, Page 40
- Snyder JW
20062979, Page 8
- Snyder K
20062196, Page 36
- Sofroniew MV
20062125, Page 11

- Sokol T**
20062193, Page 20
20063732, Page 9
- Solle NS**
20063526, Page 36
- Somps C**
20062269, Page 68
- Sontheimer H**
20062125, Page 11
- Sorensen G**
20062195, Page 25
- Sotir M**
20062090, Page 13
- Sparer-Fine EH**
20062193, Page 20
- Spector JT**
20063439, Page 26
- Spinazzè A**
20063030, Page 12
- Spiro AIII**
20061924, Page 8
- Srednicki JR**
20062714, Page 63
- Sriram K**
20063056, Page 21
- Srivastav A**
20064362, Page 32
- Srivastava AK**
20062248, Page 19
- Staack SD**
20062368, Page 36
- Stach R**
20060170, Page 2
20061249, Page 36
20062432, Page 39
- Stanton M**
20061781, Page 28
- Stanton ML**
20063779, Page 78
- Staples JE**
20061998, Page 3
- Stastny AL**
20063331, Page 9
- Stearns RL**
20063439, Page 26
- Steege A**
20061429, Page 39
20062920, Page 47
- Steele L**
20063483, Page 20
- Stefaniak AB**
20062272, Page 68
20062332, Page 37
20062372, Page 37
20062986, Page 36
20064071, Page 31
20064163, Page 36
20064255, Page 31
- Stefanick ML**
20063395, Page 73
20063396, Page 73
- Steinhäuser C**
20062125, Page 11
- Stenzel M**
20063254, Page 46
- Sterling MR**
20064239, Page 37
- Sterrett N**
20062704, Page 27
- Stewart JW**
20060564, Page 17
- Stewart M**
20064096, Page 41
- Stewart P**
20064518, Page 18
- Stokes AC**
20063691, Page 5
- Stokley S**
20062255, Page 21
20062264, Page 18
20062661, Page 41
20062704, Page 27
- Stone S**
20062262, Page 67
- Storey E**
20063844, Page 51
- Stover D**
20061811, Page 40
- Strauch AL**
20062490, Page 1
20062503, Page 37
- Streicher RP**
20063331, Page 9
20063986, Page 9
- Streit J**
20064242, Page 52
- Streit JMK**
20061689, Page 17
20063038, Page 12
20063305, Page 37
- Stueckle T**
20063949, Page 14
- Stueckle TA**
20062266, Page 69
20064252, Page 13
- Styles L**
20062359, Page 75
- Su D**
20061773, Page 42
20064500, Page 65
- Su DWH**
20061966, Page 37
20063476, Page 62
20063502, Page 62
20064416, Page 62
20064712, Page 58
20064715, Page 62
- Su J**
20062090, Page 13
- Su JR**
20062587, Page 35
- Sukumaran SK**
20063985, Page 5
- Sullivan K**
20061454, Page 22
20063483, Page 20
20063715, Page 25
- Sun X**
20060851, Page 42
- Sunderman C**
20062708, Page 61
20063514, Page 61
- Sunderman M**
20063716, Page 12
- Sunenshine R**
20062710, Page 18
- Suonio E**
20064518, Page 18
- Sussell A**
20061306, Page 33
- Svendsen C**
20064518, Page 18
- Swanson N**
20062597, Page 2
- Swanson RA**
20062125, Page 11
- Sweeney HM**
20062920, Page 47
- Sweeney MH**
20061094, Page 6
- Syamlal G**
20062177, Page 37
20062297, Page 22
20063144, Page 9
20063275, Page 37
20064360, Page 28
- Sylvester T**
20062710, Page 18
- Syron LN**
20061540, Page 37
- Szalajda J**
20063638, Page 8
- Sález I**
20063992, Page 31
- Takahashi M**
20063667, Page 47
- Talawyma B**
20062753, Page 18
- Tallapragada M**
20061122, Page 38
- Tamers S**
20064242, Page 52
- Tamers SL**
20063256, Page 45
- Tan J**
20061786, Page 7
- Tang W**
20063599, Page 62
- Tarlo SM**
20061774, Page 16
- Tarrant S**
20062710, Page 18
- Taryal D**
20064213, Page 28
- Tate JE**
20062313, Page 16
- Taylor K**
20063732, Page 9
- Taylor KW**
20059863, Page 1
- Tegart LJ**
20063619, Page 38
- Tejada-Vera B**
20062122, Page 2
- TePoel MR**
20063903, Page 15
- Themann CL**
20063699, Page 14
- Thierry-Chef I**
20061965, Page 23
- Thiese MS**
20063231, Page 38
- Thiry E**
20062843, Page 23
- Thomas B**
20062196, Page 36
- Thomas D**
20061811, Page 40
- Thomas ES**
20064213, Page 28
- Thomas I**
20062968, Page 5
20064089, Page 5
- Thomas R**
20061500, Page 10
20062306, Page 70
20064129, Page 67
- Thomas RA**
20061420, Page 33
20063610, Page 65
- Thomas S**
20062921, Page 6
- Thomas TA**
20062272, Page 68
- Thomasson E**
20061799, Page 33
- Thompson JA**
20062273, Page 70
- Thompson ND**
20062921, Page 6
- Thompson WW**
20061638, Page 2
20062847, Page 15
20063661, Page 19
- Thorndike AN**
20063497, Page 5
- Tian LH**
20061638, Page 2
- Tiesman H**
20062968, Page 5
20063584, Page 50
20064089, Page 5
- Tikka C**
20061858, Page 39
20063908, Page 26
- Tilashalski F**
20063307, Page 59
- Tillman C**
20061811, Page 40
- Timm E**
20062843, Page 23
- Toblin R**
20062661, Page 41
- Toblin RL**
20062255, Page 21
20062264, Page 18
20062704, Page 27
- Tobolowsky FA**
20063998, Page 31
- Toda M**
20063102, Page 9
- Toennis C**
20062978, Page 25
20064217, Page 27

Author Index

- Tomasek L**
20061620, Page 33
- Tomasi S**
20063779, Page 78
- Tomasi SE**
20063231, Page 38
- Tonda J**
20062022, Page 12
- Tonzel J**
20061811, Page 40
- Toomey E**
20061858, Page 39
- Toomey R**
20063483, Page 20
- Tormey CA**
20062979, Page 8
- Trackemas J**
20064704, Page 64
- Traxler RM**
20063732, Page 9
- Trester-Wilson E**
20062554, Page 34
- Trinkle J**
20061786, Page 7
- Trinkoff A**
20063667, Page 47
- Tripodis Y**
20063691, Page 5
- Tritsch SR**
20062843, Page 23
- Trost A**
20061179, Page 6
- Trotter AG**
20062193, Page 20
- Trout D**
20062694, Page 49
20062731, Page 34
- Tsai RJ**
20061702, Page 35
- Tseng C-Y**
20062527, Page 20
20063710, Page 41
- Tu'tsi E**
20062753, Page 18
- Tubach S**
20061811, Page 40
- Tulu IB**
20061115, Page 38
20061221, Page 21
20061764, Page 11
20061765, Page 7
20061769, Page 38
20061860, Page 38
20061885, Page 38
20062797, Page 11
20063180, Page 70
20064221, Page 68
20064713, Page 55
- Tuncay D**
20061115, Page 38
20061769, Page 38
20061860, Page 38
20061885, Page 38
20063180, Page 70
- Turabelidze G**
20061811, Page 40
- Turkevich LA**
20062892, Page 6
- 20062902, Page 22
20063754, Page 59
- Turner MC**
20064518, Page 18
- Twentyman E**
20060716, Page 20
- Tyurin VA**
20062248, Page 19
- Tyurina YY**
20062248, Page 19
- Umbright CM**
20062210, Page 19
20062905, Page 29
- Ussery EN**
20062264, Page 18
- Uyeki TM**
20061971, Page 22
20064224, Page 22
- Valencia D**
20062122, Page 2
- Valencia-Prado M**
20062122, Page 2
- Vallabhaneni S**
20062313, Page 16
- Van Dyke M**
20061527, Page 35
20061764, Page 11
20061765, Page 7
20061766, Page 26
20061966, Page 37
20062797, Page 11
20063476, Page 62
20063502, Page 62
20064130, Page 69
20064221, Page 68
20064715, Page 62
- Van Dyke MA**
20061221, Page 21
20061767, Page 21
20061860, Page 38
20061928, Page 38
20063180, Page 70
- Vandebriel RJ**
20061695, Page 16
- Vanderslice S**
20061849, Page 29
20063573, Page 56
- Vanos JK**
20063439, Page 26
- Varela K**
20062525, Page 42
20063779, Page 78
- Vargas NT**
20063439, Page 26
- Varraso R**
20061872, Page 10
- Vasdev N**
20061924, Page 8
- Vaughan A**
20063118, Page 10
- Velayutham M**
20063449, Page 25
20063751, Page 25
- Velazquez-Kronen R**
20063238, Page 38
- Venkat HL**
20062710, Page 18
- Verbeek JH**
20061858, Page 39
20063908, Page 26
- Verkhratsky A**
20062125, Page 11
- Vicenti D**
20062753, Page 18
- Victoroff T**
20061811, Page 40
- Viegas S**
20064518, Page 18
- Vila B**
20062394, Page 33
- Vilahur N**
20059863, Page 1
- Villafañe-Delgado JE**
20062122, Page 2
- Vinson J**
20062972, Page 7
- Violanti J**
20063238, Page 38
- Violanti JM**
20061321, Page 15
20061429, Page 39
20062336, Page 17
20062394, Page 33
20062430, Page 28
20063700, Page 39
20063756, Page 39
20064308, Page 41
- Virji A**
20064518, Page 18
- Virji MA**
20061802, Page 39
20062332, Page 37
20062839, Page 24
20064149, Page 39
20064163, Page 36
- Vitorica J**
20062125, Page 11
- Vlasova II**
20062248, Page 19
- Vo E**
20062035, Page 39
- Voller LM**
20063192, Page 21
20063823, Page 24
- Volterra A**
20062125, Page 11
- Vostok J**
20061811, Page 40
20063187, Page 5
- Vuori J**
20061973, Page 29
- Wade EE**
20062332, Page 37
- Wagar EA**
20062979, Page 8
- Waggoner J**
20061971, Page 22
20064224, Page 22
- Wagner GR**
20062195, Page 25
- Wagner JR**
20061809, Page 7
20062183, Page 7
- Wagner T**
20062843, Page 23
- Walawender M**
20064224, Page 22
- Walker RL**
20062432, Page 39
- Wallace B**
20063844, Page 51
- Wallace L**
20062195, Page 25
- Wallentine D**
20062391, Page 14
20063949, Page 14
- Waltenburg MA**
20061811, Page 40
- Walters M**
20061834, Page 31
- Walton G**
20061051, Page 21
- Wang A**
20062255, Page 21
20062264, Page 18
20062661, Page 41
20062704, Page 27
- Wang C**
20061855, Page 24
- Wang L**
20063912, Page 63
20063913, Page 62
- Wang T**
20063470, Page 42
- Wang X**
20063955, Page 40
- Wang Y**
20061501, Page 5
- Wanner I-B**
20062125, Page 11
- Warren C**
20060173, Page 42
20062746, Page 42
- Warren CM**
20062893, Page 10
- Warren N**
20064363, Page 10
- Warren S**
20063490, Page 56
20063510, Page 56
- Warshaw EM**
20063192, Page 21
20063823, Page 24
- Waters K**
20062313, Page 16
- Waters MA**
20062554, Page 34
- Waters TR**
20063303, Page 47
- Watkins E**
20062389, Page 40
20063604, Page 55
- Weakley AT**
20062655, Page 30
- Weatherly L**
20062267, Page 67
- Weatherly LM**
20063484, Page 40
20064257, Page 3
- Weaver D**
20063188, Page 35
20064355, Page 17

- Webb S**
20062020, Page 48
20062021, Page 48
- Webber MP**
20063478, Page 40
- Weber A**
20063364, Page 3
- Webster AS**
20064224, Page 22
- Wedekind R**
20064518, Page 18
- Wee SO**
20062213, Page 23
- Wei S**
20063706, Page 40
- Weiner Z**
20063732, Page 9
- Weirich EG**
20062979, Page 8
- Weiss D**
20063135, Page 30
- Weissman DN**
20060716, Page 20
20061205, Page 34
20062731, Page 34
- Welbel S**
20062525, Page 42
- Welch S**
20062753, Page 18
- Welch TJ**
20062359, Page 75
- Welcome DE**
20060173, Page 42
20061387, Page 29
20062746, Page 42
20063452, Page 10
- Weller D**
20062704, Page 27
- Weller DL**
20062264, Page 18
- Welton MD**
20061998, Page 3
- Wepsala W**
20062648, Page 49
- Werren D**
20062196, Page 36
- West MR**
20063193, Page 34
20063580, Page 28
- Westergaard R**
20062386, Page 16
- Westgate PM**
20061286, Page 7
- Whisler R**
20062861, Page 17
20064355, Page 17
- Whiteman A**
20062264, Page 18
20062661, Page 41
- Whitesell A**
20064096, Page 41
- Whitfield GP**
20062281, Page 31
- Whitson A**
20063274, Page 27
20064665, Page 60
- Whittaker SG**
20062189, Page 6
- Wickizer J**
20063485, Page 57
20063506, Page 57
- Wickline J**
20061765, Page 7
- Wiegand DM**
20063471, Page 77
- Wielick C**
20062843, Page 23
- Wiggins C**
20061620, Page 33
- Wilkinson A**
20062078, Page 20
20062648, Page 49
- Wilkinson AF**
20064217, Page 27
- Willaert JF**
20062843, Page 23
- Williams A**
20062968, Page 5
20064089, Page 5
- Williams C**
20062704, Page 27
- Williams SL**
20063102, Page 9
- Williams WJ**
20062479, Page 65
20062490, Page 1
20063439, Page 26
20063703, Page 26
- Williams K**
20064071, Page 31
- Wilson LE**
20062921, Page 6
- Wilson Z**
20064163, Page 36
- Wiltz JL**
20060716, Page 20
- Wimer B**
20061163, Page 29
- Wimer BM**
20061387, Page 29
20061640, Page 41
20064521, Page 63
- Winkler J**
20063573, Page 56
- Winkler M**
20063937, Page 13
- Winn A**
20062272, Page 68
- Wirth MD**
20062336, Page 17
20062430, Page 28
20064308, Page 41
- Wirth O**
20062135, Page 13
- Wisner M**
20062384, Page 23
- Wizner K**
20060453, Page 14
- Wolf J**
20063601, Page 17
- Wolkin A**
20062022, Page 12
- Wong I**
20063984, Page 16
20064145, Page 41
- Wong IS**
20060271, Page 12
20063878, Page 41
- Wood LB**
20062125, Page 11
- Woodfork K**
20062971, Page 24
- Woods A**
20062921, Page 6
- Woodward P**
20062710, Page 18
- Workman A**
20063619, Page 38
- Workman M**
20063493, Page 61
20063512, Page 61
- Workshop Presenters
and Participants**
20063038, Page 12
- World Trade Center
Health Program**
20064662, Page 54
20064663, Page 54
- Wu J**
20062125, Page 11
- Wu JZ**
20061258, Page 9
20061387, Page 29
20061640, Page 41
20062893, Page 10
20063452, Page 10
20064521, Page 63
- Wu K**
20062313, Page 16
- Wurzelbacher S**
20063601, Page 17
- Wurzelbacher SJ**
20062527, Page 20
20062834, Page 1
20062991, Page 25
20063710, Page 41
- Xiao B**
20060173, Page 42
- Xie H**
20060851, Page 42
- Xiong R**
20061501, Page 5
- Xu S**
20061641, Page 41
20062035, Page 39
20063276, Page 63
- Xu SS**
20063031, Page 42
- Xu XS**
20060173, Page 42
20062746, Page 42
20063452, Page 10
- Xue Y**
20063605, Page 55
20064462, Page 63
20064705, Page 63
20064714, Page 60
- Xuei X**
20062276, Page 68
20064395, Page 22
- Yaglom HD**
20062710, Page 18
- Yakubovskaya MG**
20064518, Page 18
- Yan L**
20062714, Page 63
20064621, Page 56
20064623, Page 64
- Yanamala N**
20062380, Page 20
20062427, Page 34
20064252, Page 13
- Yang JLL**
20062337, Page 22
- Yankey D**
20064360, Page 28
- Yantek D**
20064621, Page 56
- Yantek DS**
20062714, Page 63
20064623, Page 64
- Yatabe G**
20062753, Page 18
- Yeargin SW**
20063439, Page 26
- Yeo M-K**
20062337, Page 22
- Yeoman K**
20061306, Page 33
- Yiin J**
20060864, Page 1
20064518, Page 18
- Yonkey JA**
20062714, Page 63
- Yoon KN**
20063235, Page 15
- Yorio P**
20061641, Page 41
20062490, Page 1
20062838, Page 33
- Yorio PL**
20060453, Page 14
20061370, Page 19
20061851, Page 15
20062234, Page 15
20062281, Page 31
20063182, Page 68
20063454, Page 19
20064751, Page 52
- Young EL**
20062313, Page 16
- Young TL**
20063470, Page 42
20063911, Page 26
- Younger J**
20063483, Page 20
- Yuan L**
20061173, Page 2
20061420, Page 33
20061500, Page 10
20062306, Page 70
20063179, Page 67
20063599, Page 62
20063605, Page 55
20063610, Page 65
20064129, Page 67
- Zablotska LB**
20061620, Page 33
20062832, Page 14

Author Index

- Zaheer S**
20063732, Page 9
- Zajac J**
20062704, Page 27
- Zang L-Y**
20063192, Page 21
- Zanoni J**
20063655, Page 31
- Zawitz C**
20062525, Page 42
- Zayed J**
20064334, Page 67
- Zechmann E**
20063875, Page 64
20063876, Page 64
20063880, Page 64
- 20063881, Page 64
- Zeidler-Erdely PC**
20062262, Page 67
20063449, Page 25
- Zeig-Owens R**
20063478, Page 40
- Zeiler RJ**
20062834, Page 1
- Zell E**
20062704, Page 27
- Zhang B**
20062090, Page 13
20062587, Page 35
- Zhang BC**
20062634, Page 35
- Zhang JH**
20060851, Page 42
- Zhang M**
20060851, Page 42
20063877, Page 60
20063882, Page 60
- Zhang P**
20061773, Page 42
20061966, Page 37
20062797, Page 11
20063476, Page 62
20063502, Page 62
20064221, Page 68
20064704, Page 64
20064416, Page 62
20064715, Page 62
20064500, Page 65
- Zhao H**
20064713, Page 55
- Zhao L**
20063055, Page 14
- Zhao M**
20062843, Page 23
- Zheng B**
20062125, Page 11
- Zheng C**
20062972, Page 7
- Zheng L**
20063176, Page 43
20063706, Page 40

National Occupational Research Agenda (NORA) Index

Agriculture Forestry and Fishing

20061540, Page 37
20063044, Page 27
20063118, Page 10

Construction

20060173, Page 42
20061163, Page 29
20061258, Page 9
20061387, Page 29
20061429, Page 39
20061640, Page 41
20061965, Page 23
20062128, Page 28
20062273, Page 70
20062274, Page 69
20062523, Page 12
20062527, Page 20
20062628, Page 49
20062753, Page 18
20062892, Page 6
20062893, Page 10
20062920, Page 47
20062942, Page 34
20062944, Page 71
20062996, Page 10
20063015, Page 24
20063055, Page 14
20063174, Page 4
20063268, Page 26
20063270, Page 69
20063364, Page 3
20063426, Page 26
20063449, Page 25
20063452, Page 10
20063474, Page 31
20063751, Page 25
20063825, Page 6
20063863, Page 71
20063908, Page 26
20063985, Page 5
20064521, Page 63

Healthcare and Social

Assistance

20060453, Page 14
20061370, Page 19
20061641, Page 41
20061741, Page 24
20061802, Page 39
20061858, Page 39
20061971, Page 22
20062022, Page 12
20062061, Page 29
20062145, Page 30
20062267, Page 67
20062503, Page 37
20062783, Page 9
20062838, Page 33
20062839, Page 24
20062905, Page 29
20062971, Page 24
20063031, Page 42
20063175, Page 33
20063176, Page 43

20063276, Page 63
20063405, Page 51
20063409, Page 50
20063454, Page 19
20063484, Page 40
20063534, Page 50
20063667, Page 47
20063884, Page 50
20064122, Page 51
20064224, Page 22
20064257, Page 3

Manufacturing

20060864, Page 1
20061501, Page 5
20061528, Page 35
20061640, Page 41
20061692, Page 1
20061695, Page 16
20061802, Page 39
20061855, Page 24
20061965, Page 23
20062137, Page 19
20062210, Page 19
20062248, Page 19
20062262, Page 67
20062266, Page 69
20062269, Page 68
20062272, Page 68
20062334, Page 21
20062380, Page 20
20062526, Page 36
20062628, Page 49
20062664, Page 27
20062694, Page 49
20062746, Page 42
20062832, Page 14
20062892, Page 6
20062902, Page 22
20062935, Page 4
20062942, Page 34
20062944, Page 71
20062986, Page 36
20062996, Page 10
20063055, Page 14
20063056, Page 21
20063090, Page 28
20063268, Page 26
20063270, Page 69
20063281, Page 45
20063321, Page 36
20063426, Page 26
20063449, Page 25
20063452, Page 10
20063470, Page 42
20063732, Page 9
20063751, Page 25
20063754, Page 59
20063825, Page 6
20063901, Page 26
20063908, Page 26
20063911, Page 26
20063985, Page 5
20064226, Page 23
20064252, Page 13

Mining

20060170, Page 2
20061051, Page 21
20061115, Page 38
20061173, Page 2
20061281, Page 18
20061296, Page 32
20061420, Page 33
20061422, Page 21
20061500, Page 10
20061527, Page 35
20061765, Page 7
20061766, Page 26
20061767, Page 21
20061769, Page 38
20061772, Page 32
20061849, Page 29
20061850, Page 11
20061857, Page 22
20061860, Page 38
20061861, Page 11
20061885, Page 38
20061928, Page 38
20061930, Page 7
20061966, Page 37
20062126, Page 32
20062127, Page 34
20062184, Page 3
20062238, Page 19
20062257, Page 65
20062259, Page 32
20062273, Page 70
20062306, Page 70
20062389, Page 40
20062432, Page 39
20062654, Page 68
20062655, Page 30
20062708, Page 61
20062710, Page 18
20062714, Page 63
20062789, Page 67
20062791, Page 70
20062913, Page 58
20063143, Page 2
20063169, Page 49
20063179, Page 67
20063180, Page 70
20063182, Page 68
20063190, Page 42
20063272, Page 50
20063482, Page 57
20063485, Page 57
20063487, Page 65
20063488, Page 59
20063489, Page 57
20063493, Page 61
20063494, Page 61
20063505, Page 56
20063506, Page 57
20063507, Page 65
20063508, Page 59
20063509, Page 57
20063512, Page 61
20063513, Page 62
20063514, Page 61

20063573, Page 56
20063587, Page 57
20063592, Page 58
20063594, Page 65
20063599, Page 62
20063604, Page 55
20063605, Page 55
20063608, Page 60
20063610, Page 65
20063883, Page 3
20064128, Page 69
20064129, Page 67
20064130, Page 69
20064131, Page 69
20064132, Page 68
20064161, Page 52
20064221, Page 68
20064665, Page 60

Oil and Gas Extraction

20060271, Page 12
20061306, Page 33
20061773, Page 42
20062267, Page 67
20063484, Page 40
20063706, Page 40
20063984, Page 16
20064257, Page 3

Public Safety

20060453, Page 14
20060564, Page 17
20061321, Page 15
20061370, Page 19
20061808, Page 27
20061829, Page 76
20061858, Page 39
20062020, Page 48
20062021, Page 48
20062054, Page 75
20062078, Page 20
20062145, Page 30
20062182, Page 48
20062213, Page 23
20062336, Page 17
20062379, Page 76
20062394, Page 33
20062430, Page 28
20062490, Page 1
20062648, Page 49
20062861, Page 17
20062871, Page 49
20062935, Page 4
20062978, Page 25
20063031, Page 42
20063085, Page 75
20063086, Page 74
20063152, Page 53
20063193, Page 34
20063235, Page 15
20063238, Page 38
20063248, Page 75
20063250, Page 73
20063276, Page 63
20063286, Page 73
20063405, Page 51

20063409, Page 50	20061878, Page 29	20062704, Page 27	Transportation, Warehousing and Utilities
20063454, Page 19	20061929, Page 1	20062731, Page 34	
20063534, Page 50	20061967, Page 78	20062847, Page 15	
20063638, Page 8	20062022, Page 12	20062979, Page 8	
20063700, Page 39	20062193, Page 20	20063102, Page 9	
20063756, Page 39	20062195, Page 25	20063231, Page 38	
20063884, Page 50	20062245, Page 77	20063281, Page 45	
20064052, Page 15	20062255, Page 21	20063321, Page 36	
20064091, Page 75	20062264, Page 18	20063364, Page 3	
20064122, Page 51	20062359, Page 75	20063427, Page 23	
20064217, Page 27	20062372, Page 37	20063465, Page 77	Wholesale and Retail Trade
20064355, Page 17	20062386, Page 16	20063471, Page 77	
Services	20062487, Page 77	20063661, Page 19	
20061781, Page 28	20062523, Page 12	20063933, Page 77	
20061829, Page 76	20062661, Page 41	20064071, Page 31	
20061872, Page 10	20062694, Page 49	20064255, Page 31	

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