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Additional Information
For more information about the National Occupational Research Agenda (NORA), visit the web site www.cdc.gov/nora.

For a monthly NORA update, subscribe to NIOSH eNews by visiting www.cdc.gov/niosh/eNews.

Suggested Citation

March 2021
Introduction

The National Occupational Research Agenda (NORA) is a partnership program to stimulate innovative research and promote widespread adoption of improved workplace health and safety practices. Unveiled in 1996, NORA runs in ten-year cycles.\(^1\) The third decade began on October 1, 2016, and runs until September 30, 2026. NORA is organized into ten industry sectors based on major areas of the U.S. economy, and seven health and safety cross-sectors organized according to the major health and safety issues affecting the U.S. working population.

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Each sector and cross-sector has a council of stakeholders from universities, large and small businesses, professional societies, government agencies, and worker organizations. Each council writes and maintains a research agenda for the nation, which collectively make up the National Occupational Research Agenda. Councils work on the areas identified in their agenda through information sharing, partnerships, and enhancing dissemination and implementation of evidence-based practices.

NIOSH is just one of many organizations that make NORA possible. Councils are platforms that help build close partnerships among members and broader collaborations between councils and other organizations. The resulting information sharing and leveraging efforts promote widespread adoption of improved workplace practices based on research results.

\(^1\) For more on the history of NORA, see [https://www.cdc.gov/nora/history.html](https://www.cdc.gov/nora/history.html)
As the steward of NORA, NIOSH supports this effort in two main ways. First, NIOSH organizes its portfolio of research programs according to the NORA framework. NIOSH sector/cross-sector program leaders co-chair the NORA councils alongside a person from another organization. Second, NIOSH uses the national agenda as a critical input into its own strategic plan.

This report highlights the activities and accomplishments of the 17 NORA councils in fiscal year (FY) 2020 (October 2019 – September 2020) and serves as a follow up to the report on achievements in FYs 2016-2018 and highlights from FY 2019. Accomplishments from the first and second decades of NORA are available in reports on the NORA website.

Accomplishments

NORA council leaders and members showed incredible dedication and ingenuity in carrying out the NORA mission in 2020. The COVID-19 pandemic placed new demands on council members and their organizations, as the occupational safety and health community determinedly sought to keep workers safe and healthy. Councils that typically would meet in person adapted to an all-virtual format, and many experimented with new ways to develop and maintain partnerships digitally. Six councils also had leadership changes. Despite the many challenges, NORA councils rose to the occasion and accomplished quite a bit this year.

Research Agendas

Each council started the third decade by writing a research agenda for the nation. Members considered the numbers of workers at risk for a particular injury or illness, the seriousness of the hazard or issue, and the probability that new information and approaches will make a difference when setting research priorities. Once drafted, agendas had a public comment period of at least 60 days. Councils considered public comments, made revisions where needed, and published their agendas online. The final agenda, the National Occupational Research Agenda for Healthy Work Design and Well-Being was published in January 2020. All 17 agendas are available on the NORA agendas webpage.

Information Sharing

One of the most important functions of NORA councils is information sharing. COVID-19 became an important topic of conversation throughout much of FY 2020:

- The Services Sector Council held two webinars focused on COVID-19 impact and response in the services sector featuring six presentations. Council members shared
experiences from different parts of this diverse sector, including staffing/employment, waste and recycling, insurance and risk management, accommodation and food services, and public health.

- The NORA Healthcare and Social Assistance Council hosted “An Update on Healthcare Services in the Next Phase of COVID-19.” This meeting featured 11 different speakers, highlighting the perspectives of professional and accreditation organizations, unions, dental practices, home care, and hospital systems. The council identified and discussed current challenges in the healthcare and social assistance sector during the COVID-19 pandemic.

- In response to the evolving needs of emergency medical services (EMS) during the COVID-19 pandemic, the NORA Public Safety Council co-hosted three meetings with University of Colorado Center for Health Work and Environment to share best-practices strategies and up-to-date resources with the EMS community. The meetings featured field practitioners, stakeholders, and academics from various parts of the country.

- As COVID-19 was on the top of members’ minds in the NORA Agriculture, Forestry, and Fishing Council, the May 2020 meeting pivoted to COVID-19 response efforts. Members shared industry-specific resources for agriculture forestry, and fishing, and discussed how COVID-19 was impacting research, injury prevention, respirator use, and already critical mental health issues.

- In an Immune, Infectious, and Dermal Disease Prevention council meeting, Dr. Marie de Perio of NIOSH presented on the CDC COVID-19 response.

- Guest speaker Ms. Kristin Mullins of the Ohio Grocers Association shared her experiences responding to COVID-19 and the value of good communication with the NORA Wholesale and Retail Trade Council.

- The NORA Healthy Work Design and Well-Being Council devoted one of their quarterly meetings to COVID-19. Dr. Sara Luckhaupt of NIOSH presented on considerations for screening, testing, and contract tracing in the workplace. Co-chair Dr. Dave DeJoy of the University of Georgia compiled and shared a summary of member COVID-19 activities.

Many priority occupational safety and health issues identified in NORA agendas before the pandemic continued to be addressed. Some councils held events on these issues:

- The NORA Traumatic Injury Prevention Council held a meeting on non-standard work arrangements and included two guest presentations. Dr. Sue Dong of CPWR – The Center for Construction Research and Training presented on non-standard employment in the construction industry. Ms. Alejandra Domenzain of the University of California, Berkeley’s Labor Occupational Health Program presented on day laborers and training for action.

- Impairment from opioids and cannabinoids was the focus of a NORA Transportation, Warehousing, and Utilities Council meeting. Dr. Hope Tiesman of NIOSH presented on drug overdose deaths at work; Dr. Gerald Kruger of Krueger Ergonomics Consultants shared about the implications of marijuana, cannabidiol (CBD), and vaping for commercial driving, and all safety sensitive transportation workers; and finally Dr. Casey
Chosewood and Ms. Jaime Osborne of NIOSH presented an update on NIOSH work on opioids.

- The Mining Council hosted a technical session, “NORA: Health and Safety in Tomorrow’s Mines,” during the Society for Mining, Metallurgy and Exploration Conference. It was moderated by one of the Mining Council co-chairs and featured five presentations.

Beyond presentations, councils routinely share information informally. Several councils devote time at meetings to round-robin updates, and others are in frequent email contact to share new resources.

- The Wholesale and Retail Trade Council publishes a newsletter one to two times a year, with articles on topics of interest to council members. The 2020 edition focused on COVID-19.
- The Cancer, Reproductive, and Cardiovascular and Other Chronic Disease Prevention (CRC) Council started a monthly email newsletter this year with announcements, details on upcoming webinars and events hosted by a variety of organizations, and citations of newly published research articles. CRC Council members are encouraged to submit content.
- The NIOSH Manufacturing Program started the Manufacturing Mondays Series in 2020, to highlight happenings within the program and throughout the world of Manufacturing. These weekly emails are sent to NORA Manufacturing Council members and others in the Manufacturing community.

**Partnerships**

The NORA councils are an important vehicle for developing and maintaining partnerships. This year NORA entered into a new partnership with the American Industrial Hygiene Association (AIHA). The January 2020 issue of *The Synergist*, AIHA’s news magazine, featured two articles on NORA. The first article, “Advances in Understanding Noise Exposures,” covered the recently published National Occupational Research Agenda for Hearing Loss Prevention. A shorter guest piece, “The Importance of NORA,” was co-authored by NORA Coordinator Emily Novicki.

Following this, AIHA members volunteered to join 12 of the 17 councils. The NORA Manufacturing Council similarly strengthened their partnership with the National Association of Manufacturers (NAM) by adding new NAM members to the council.

Other councils built partnerships through collaborative efforts. Members of the NORA Hearing Loss Prevention Council coordinated the publication of a special issue of the Journal of the Acoustical Society of America devoted to noise induced hearing loss and translational research. Guest editor and council member Dr. Colleen LePrell, of the University of Texas at Dallas, presented an overview of the special issue to the NORA Hearing Loss Prevention Council. Similarly, members of the Oil and Gas Extraction Council contributed to an Occupational Safety and Health Administration (OSHA), NIOSH, National STEPS Network (an association of regional Service, Transmission, Exploration & Production Safety) hazard alert Sudden Uncontrolled Pressure Release Precautions for the Oil and Gas Industry. Workers are at risk of serious injury and even death from projectile materials when uncontrolled pressure is released.
Promoting Evidence-Based Solutions

NORA councils also work to communicate the findings of occupational safety and health research. A NIOSH Science Blog series recognizing the “International Year of the Nurse” highlighted occupational safety and health issues relevant to nurses and featured blogs written by NORA Healthcare and Social Assistance Council members. In FY20, seven blogs were written and published by NORA council members.

- **Year of the Nurse** by LCDR Megan Casey, RN, BSN, MPH
- **Managing Fatigue During Times of Crisis: Guidance for Nurses, Managers, and Other Healthcare Workers** by Beverly M. Hittle, PhD, RN, Imelda S. Wong, PhD and Claire C. Caruso, PhD, RN, FAAN
- **Nurses’ and Other Health Professionals’ Wellness and Safety Resource Update** by Ruth Francis, MPH, MCHES and Holly Carpenter, BSN, RN
- **Surgical Smoke Inhalation: Dangerous Consequences for the Surgical Team** by Mary J. Ogg, MSN, RN, CNOR
- **Nurses’ and Other Health Professionals’ Wellness and Safety Resource Update** by Ruth Francis, MPH, MCHES and Holly Carpenter, BSN, RN
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- **Safety Culture and Health Care** by Bonnie Rogers, DrPH, COHN-S, FAAN, LNCC
- **Work Ability among Older Nurses** by Amy Witkoski Stimpfel, PhD, RN
- **The Unique Occupational Environment of the Home Healthcare Worker** by Elizabeth Bien, PhD, MSN, RN, and Ron Smith, AIA, ACHA, ACHE, LEED AP

The NORA Construction Council continues to actively participate in the National Campaign to Prevent Falls in Construction. The signature annual event of the campaign, the National Safety Stand-Down to Prevent Falls in Construction was hosted virtually for the first time. To support this event, the Construction Council falls campaign workgroup helped develop 11 fall prevention related infographics in 2020. Members also contributed to a postcard and new website for small business contractors (less than 20 employees) in both English and Spanish. Several council members distributed these small business fall prevention postcards to their local permitting offices.
NORA Construction Council members also contributed to the first ever National Stand Down event to address internal traffic work zone struck-by incidents during National Work Zone Awareness Week in April 2020. Mr. Brad Sant, a Construction Sector Council member and leader at the American Road and Transportation Builder’s Association (ARTBA), led the event planning through the Council’s struck-by workgroup. Infographics, toolbox talks, and a web page of resources were all created for the event.

The NORA Musculoskeletal Health Council posted a list of ergonomic guidance documents on the International Ergonomics Association’s Musculoskeletal Disorders Technical Committee website. The list links to more than 100 documents with interventions for reducing the risk factors for workplace musculoskeletal disorders. Information on these activities was also presented at the Human Factors and Ergonomics Society annual meeting held virtually in October 2020.

The Faces of Work-related COPD video series on Chronic Obstructive Pulmonary Disease (COPD) produced by the NORA Respiratory Health Council and NIOSH in 2019 continued to be impactful in 2020. The videos were selected by the American Public Health Association (APHA) for screening during the APHA Film Festival in October 2020. They were also promoted by the U.S. COPD Coalition in an article on their website.

Looking Forward

FY 2021 will surely continue to pose challenges for NORA Councils and the entire occupational safety and health community, but council members will just as surely continue to rise to the occasion. Information sharing will continue with high quality presentations and productive discussions during virtual council meetings. Partnerships can still grow and even thrive in an all-digital environment. Council workgroups will continue to actively work on projects such as health and safety campaigns and resource guides. Those interested in joining a council are welcome to contact NORACoordinator@cdc.gov
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