

NORA news

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In 1996, NIOSH and over 500 partners established the National Occupational Research Agenda (NORA), a framework to guide the efforts of the occupational safety and health community toward targeted, high-impact priority research areas. NORA encompasses 21 priority areas, such as traumatic injury, asthma and COPD, mixed exposures, and control technology. These priority areas were identified through extensive input from NIOSH's federal and non-federal partners. Since 1996, NIOSH has aligned its intramural and extramural research to increase its investment in NORA priority areas.

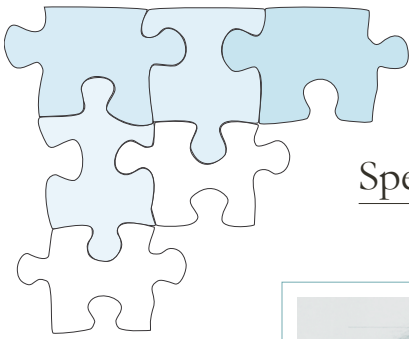
SPECIAL POPULATIONS AT RISK

The labor force has changed significantly over the past two decades. Its demographic composition will continue to shift due to changes in both the composition of the population and the rates of workforce participation across groups. For example:

- † In 2010, a substantial share of the labor force will be ages 46 to 64. Older workers may experience higher fatality rates, higher injury rates, and longer recovery periods after injuries.
- † Younger workers will continue to enter the labor market. They are at increased risk of work-related injury because they often have limited job knowledge, training, and skills. Every year about 70 teens die from work injuries in the United States. About 77,000 get hurt badly enough that they go to a hospital emergency room.
- † The labor force participation rates of women in nearly all age groups are projected to increase. The women's labor force will grow more rapidly and will increase from 47% in 2000 to 48% in 2010. Women also hold the majority (59%) of low-wage jobs.
- † The labor force will also become more diverse with increases in participation of Asians, Hispanics, and African Americans.

According to the Current Population Survey, 6% of the workforce in 2000 consisted of foreign born workers who immigrated during the 1990's. These workers are disproportionately employed in low wage jobs and in industries with higher injury and illness rates.

According to the Bureau of Labor Statistics annual report on fatalities, the number of fatal work injuries overall was lower in 2000, but fatal injuries among Hispanic or Latino workers were up sharply, from 730 in 1999 to 815 in 2000. This increase in fatalities was led by a 24% jump in construction fatalities involving Hispanic workers.



Special Populations at Risk Team Leaders



Sherry Baron, MD, MPH
Intramural Co-Team Leader

Dr. Baron is a board certified occupational physician who received her medical degree from Case Western Reserve in Cleveland and her Masters in Public Health from the University of Illinois, Chicago School of Public Health. She has worked in NIOSH's Health Hazard Evaluation program for the past 15 years and spent two years on assignment working with Mexican government agencies to develop occupational health research programs. Her current research interests include the health and safety issues of immigrant workers.

“The rapidly changing nature of work and the workforce in the US provides new and exciting challenges to occupational health researchers. This team is trying to present new ideas, information and approaches that will allow researchers to better face these challenges.”



Rosemary Sokas, MD, MOH
Extramural Co-Team Leader

Dr. Sokas is the Director of the Environmental and Occupational Health Sciences Division of the University of Illinois at Chicago School of Public Health. She received her medical degree from Boston University and a Masters in Occupational Health from the Harvard School of Public Health. She has practiced primary care medicine in the Las Marias Migrant Health Center in Las Marias, Puerto Rico and in the Dr. Martin Luther King Jr. Health Center in New York. She most recently served as the NIOSH Lead Medical Officer and Associate Director for Science

“I’ve been regularly amazed by both the expertise of the team members and the passion they bring. As overwhelming as the challenges are, each meeting helps reinforce the idea that coordinated and focused efforts can make a difference.”

The NORA Special Populations at Risk Team promotes research on populations of workers who may be at increased risk of injury and illness in the workplace. These special populations are defined by biologic, social, and/or economic characteristics, including: age, gender, race, disability, education, language, literacy, culture, income, nationality, and citizenship. Team members include NIOSH researchers and external partners from academia, state health departments, labor unions, advocacy organizations, international health organizations and other governmental agencies. Their goal is to examine groups that have been inadequately studied in the past, and to target research for effective prevention interventions.

The team has found it challenging to address the needs of so many populations that experience disparities. It is developing products that focus on specific populations, including two forthcoming documents on research needs of aging workers and immigrant workers. The documents will discuss where these workers are employed, their particular health and safety needs, and the most applicable research methods.

The team is also considering a cross cutting approach that will facilitate reaching a variety of groups, for example, emphasizing the importance of special populations in social epidemiological research. Members are discussing ways to make survey instruments available to measure the work issues of diverse populations. NIOSH-funded research at the University of Massachusetts Lowell is exploring ways to integrate issues of discrimination, balancing family and work, and racism into occupational health surveys. A compendium of survey tools is expected to be published from the research results. The group is also working with the National Institutes of Health (NIH) in planning a conference on balancing work and family life and on the impact of health and well-being, particularly for low-income workers.

Aging Workers

New Partnerships

NIOSH is exploring partnership opportunities with Experience Works to conduct research that will help dispel the myths surrounding older workers. Experi-

ence Works is a national, nonprofit organization that provides training and employment services for mature workers. Established in 1965 as Green Thumb and renamed Experience Works in 2002, the organization reaches more than 125,000 mature individuals in all 50 states and Puerto Rico each year. The group advocates the positive impact of work on health and longevity. Potential partnering ideas include designing outreach to employers to identify best practices, holding a symposium on the aging workforce, and creating joint public service announcements.

Outstanding Older Worker

Ed Burroughs, 77, is the Safety Director of Sundance Mechanical & Utility Corp., a construction company in Albuquerque, New Mexico and winner of Experience Works' 2002 Outstanding Older Workers Award. Mr. Burroughs is responsible for the Safety Program for approximately 140 workers, which addresses excavations, silica exposure, hazardous noise and working in confined spaces. Weekly safety meetings are presented not only in English but also in Spanish to accommodate the company's Hispanic workers, which comprise 25-30% of the workforce. Mr. Burroughs finds NIOSH publications and materials the major source of information to effectively to reach the workers - "NIOSH provides great ideas and factual references." He is looking forward to NIOSH having more documents available in Spanish.

New Study: Work, Aging & Cognitive Ability

The National Institute of Aging (NIA) is conducting research at three universities to understand how age-related changes impact an older person's ability to successfully interact with technology. As part of this research, a "core battery" is being administered to approximately 1500 participants to record their working memory, spatial skills, general health information, and demographic data. NIOSH, in partnership with NIA, has provided additional funding to

develop an occupational supplement that will be added to this core battery. This supplement will measure work history, job characteristics, and the use of technology at work. Data from the supplement will provide NIOSH with the opportunity to link occupation and industry data to age-related deficits in cognition and health.

A second phase of the study involves examining how older workers perform on work-related tasks that require the use of technology. For example, telecommuting is being studied through a simulation in which participants respond to a series of queries on a computer. Outcome measures include self-reports and performance assessments. Results from the study will provide a better understanding of how technology-based jobs can be designed to facilitate performance and reduce stress levels for older workers.

Minority Workers

Farm Operators

Some diseases are less prevalent in various racial and ethnic groups of minority farm operators than in white farm operators, but others are more prevalent, according to a recent NIOSH study.

The findings, which were reported at the American Public Health Association's Annual Meeting in November 2002, were drawn from a survey conducted by NIOSH and the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service. The survey used a population sample from USDA's Census of Agriculture. For the first time, this study provides researchers with a large enough data base for analyzing health status of farm operators by gender, race, and ethnicity.

The study showed:

† Fewer Hispanic farm operators reported health problems than white, non-Hispanic farm operators - except for diabetes, which was reported by more Hispanic men and women.

† Fewer Asian American farm operators reported health problems than white farm operators - except for diabetes in both genders and dermatitis in women, where Asian Americans reported a greater prevalence of each condition, but not at statistically significant rates.

† African American farm operators reported a greater variability of health problems by gender and type of health problem than did white farm operators.

† American Indian and Alaska Native farm operators had a higher prevalence of respiratory problems, hypertension, and diabetes than white farm operators did. American Indian and Alaska Native men reported a greater prevalence of musculoskeletal problems.

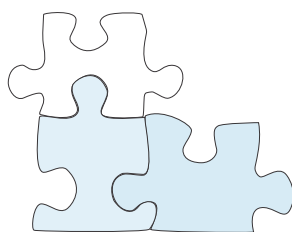
The study points to areas where additional, focused research will be critical for determining whether various illnesses in those occupational groups are job-related, and for identifying ways to keep the growing number of minority and female farm operators healthy and safe.

New Publication



Soluciones Simples: Ergonomia Para Trabajadores Agricolas
Simple Solutions: Ergonomics for Farm Workers: NIOSH has issued a new Spanish language document that provides simple, versatile, and effective ways to protect farm workers from back injuries and other musculoskeletal disorders. It provides illustrated, easy to read guidelines and tip sheets for Spanish-speaking farm workers, their employers, safety professionals, and others.

Farm workers suffer from backaches and other pains



in the shoulders, arms, and hands more than any other occupational health problem. In California alone, more than 3,000 work-related back injuries are reported each year among farm workers, with estimated annual costs of more than \$22 million. Of the 1.8 million hired farm workers in the U.S., 75 percent report they read English only a little or not at all, and 84 percent report that their primary language is Spanish.

This document includes good working practices for repetitive tasks, as well as tips for many specific tasks and tools. The information is based on case studies, field observations, and other applications in which the approaches have been shown to be successful.

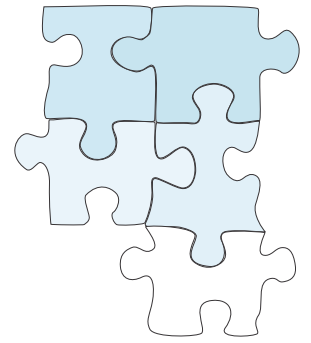
The publication is already in use. Mr. Frank Castillo, Inspector/Instructor for the Agricultural Safety and Health Bureau of the North Carolina Department of Labor, used the document during a training session on proper lifting techniques for 320 sweet-potato farmers from Mexico. He stated "After engaging the workers in a series of questions and answers about the techniques they were using, I pointed out their errors, and indicated that proper methods could be found on the handout I had prepared for them. I think the booklet is very helpful. While addressing a common problem, it offers a solution that is easy to implement. I would encourage other groups to use this booklet, since it is easy to understand and is useful for a visual learner."

Workers with Disabilities

A recent NIOSH-funded study explores workers' perception of career limitations due to their disabilities. The study was based on information from 851 respondents who reported that they were currently working but were limited in the kind or amount of work, due to on-going health problems, impairments, or disabilities. The respondents were drawn from the "Disability Supplement to the National Health Interview Survey," conducted by CDC's National Center for Health Statistics. The survey collects data for a representative sample of the U.S. population.

The results, reported at the American Public Health Association's 2002 Annual Meeting, included these findings:

† 5 percent of the respondents said they had been refused promotion, transfer, or training in the past five years because of their conditions.

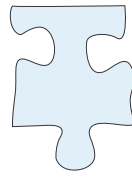
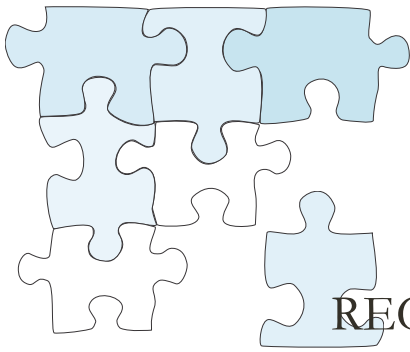


- † Workers with limitations due only to mental conditions were six times more likely to report restricted opportunities than workers with limitations due only to physical conditions.
- † Workers with limitations due to both physical and mental conditions were eight times more likely to report restricted opportunities than workers with limitations due only to physical conditions.

The findings identify areas where further research and interventions can help scientists and others address concerns about employment and disability, as well as the effects that perceptions about limitations on opportunities may have on worker stress and health. Further studies also can explore specific types of disabilities and workplace opportunities, as well as age differences in the way workers with disabilities are treated.

Grant Funding Opportunity

NIOSH has joined with the National Institute of Environmental Health Sciences (NIEHS) in a grant solicitation focusing on environmental justice and special populations. The purpose of this program is to strengthen the support of NIEHS and NIOSH for research aimed at achieving environmental justice for socioeconomically disadvantaged and medically underserved populations in the United States. The program is meant to promote health research, education, and intervention programs that will improve ways to serve low income, immigrant, and minorities who may be disproportionately exposed to environmental and occupational stressors.



RECENT NORA ACTIVITIES

Research Findings

New Leads for Lung Disease Prevention

Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in the U.S. A recent NIOSH study identifies industries and occupations with a higher-than-expected prevalence of the disease. The study also estimates the fraction of cases with COPD attributable to work in these industries and occupations where workers are most at risk. To NIOSH's knowledge, this is the first study to develop such an estimate from U.S. population-based data.

The study was published in the October 15, 2002, issue of the *American Journal of Epidemiology*. It was based on a sample of 9,823 individuals, 30 to 75 years old, drawn from the Third National Health and Nutrition Examination Survey, which was conducted by CDC's National Center for Health Statistics from 1988 to 1994. The study found that 19 percent of COPD cases in the U.S. population can be attributable to work in industries that pose a risk for these illnesses. In persons who never smoked, the proportion was even higher (31 percent). This indicates a substantial potential to prevent COPD through control of respiratory health hazards in the workplace. The findings provide scientists, health professionals, and others with new leads for research and interventions to reduce the occurrence of chronic obstructive lung disease.

Upcoming Research

Injury Prevention among Nurses

Recent statistics from the Bureau of Labor Statistics indicate that 16 percent of U.S. employees work on schedules other than during the daytime. Approxi-

mately 1.1 million registered nurses work schedules that provide around-the-clock services.

A NIOSH study "Health and Safety Outcomes Related to Work Schedules in Nurses," will look at the combined effects of shift work, longer shifts, and working more than 40 hours a week on health and safety. Since shift work can cause changes in sleep patterns, workers may be at increased risk for accidents and errors. This project will explore what effect shift work may have on health and safety by disturbing sleep, family life, and social life.

The research will recruit 1,000 randomly selected registered nurses from 10 large hospitals. The nurses will be asked to complete a survey, keep a sleep and activity diary, provide blood pressure readings, and forward a copy of their work schedule for the previous three-month period. The study is expected to take approximately two years to complete.

Workplace Violence Initiative

In the area of traumatic injury and with new resources to develop a workplace violence initiative, NIOSH recently awarded 5 extramural grants in this area. Four will focus on identifying risk factors for workplace violence in four diverse occupational groups (social service workers, healthcare employees, police officers, and long-haul truckers), and the fifth will focus on research to increase the identification of domestic violence in the workplace. All projects address research priorities identified in recommendations from a workshop of experts from industry, labor, government, and academia held in April 2000. The workshop was co-sponsored by the University of Iowa Injury Prevention Research Center and NIOSH.



NIOSH participants: Sid Soderholm, Conference Chair, Boris Lushniak, Dino Mattorano, and Aaron Sussell

NORA Meetings

Allergic and Irritant Dermatitis

In September 2002, NIOSH co-sponsored the International Conference on Occupational and Environmental Exposures of Skin to Chemicals: Science and Policy. The conference brought together dermatologists, occupational hygienists, laboratory researchers, policy makers, and others to focus on the science, knowledge gaps, and policy opportunities related to occupational and environmental exposures of the skin to chemicals. Conference sessions discussed the challenges of defining and identifying hazards of skin exposures, developing policies for prevention, and effectively communicating methods to protect workers from dermal exposures. Approximately 135 individuals attended, including many from outside of the U.S. A second conference is scheduled for 2004.

Traumatic Injury

The Third National Occupational Injury Research Symposium (NOIRS) will be held on October 28-30, 2003, in Pittsburgh, PA.

NOIRS is a national forum for the presentation of latest findings and methods in occupational injury research. It will consist of presentations on research studies, methods, and findings related to traumatic work-related injuries. Abstracts of 300 words or less are invited in areas that may include, but are not limited to, agriculture, communication/technology transfer, construction, engineering/technology, fire fighters/emergency responders, intervention evaluation, mining, motor vehicles, social/economic impact, special populations at risk, surveillance of fatal and non-fatal injuries, and workplace violence. The deadline for abstracts is April 1, 2003.

For further information on NOIRS 2003 and on sub-

mitting abstracts, visit the NIOSH web site at www.cdc.gov/niosh/noirs/noirmain.html or call the toll-free NIOSH information number, 1-800-35- NIOSH (1-800-356-4674).

NORA Symposium and Partnering Award

NORA research accomplishments will be showcased at the NORA Symposium: Working Partnerships - Research to Practice on June 23-24, 2003 in Arlington, VA.

The NORA Liaison Committee invites nominations for the NORA Partnering Award for Worker Health and Safety to be presented at the Symposium. This award honors exemplary teamwork, innovative thinking, and strong science in the interest of worker health and safety. It was created to recognize those organizations participating in NORA-related collaborative research partnerships that result in the development of new equipment, practices, products, procedures, or policies that reduce hazardous exposures and/or adverse outcomes in order to protect worker health and safety. The award is a multi-organizational award.

Partnering Award Nomination Guidelines

Nominations are invited for collaborative research achievements that have advanced prevention, protection, and intervention in occupational safety and health. Partners should nominate themselves jointly and must comprise three or more organizations. The partnership must include at least one employer or organization representing employers, e.g., trade associations, and at least one organization representing workers. The worker organization should be involved in the decision making aspects of the study. Other partners may include such entities as academic institutions, government agencies, and non-profit organizations. Individuals with knowledge of a partnership that should be considered for this award are invited to send contact information to the Chair, Partnering Award Subcommittee so the nomination can be solicited. NIOSH participation in or funding of the partnership is not a requirement for eligibility.

The deadline for receipt of nominations is Monday, March 3, 2003. Submissions received after the close of business on March 3 will not be considered. For additional information, please contact Harry Ettinger, Chair of the Partnering Award Subcommittee, (505)662-7132, junee@rt66.com, ettingerz@aol.com or Dr. Anita Schill at aschill@cdc.gov or (202)401-3740.

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