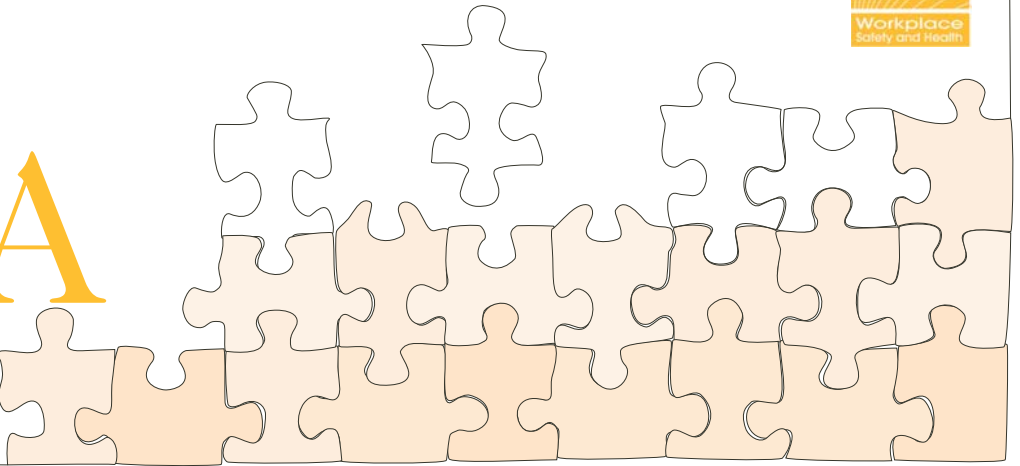


NORA

news



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Message from NIOSH

Welcoming a New Director- Dr. John Howard

I am proud not only to serve as the new director of NIOSH, but also to help continue the vital work of NORA. I look forward to meeting with NORA partners and team members to learn more about the ongoing projects and interventions that are so important to occupational safety and health. Looking ahead, I hope we can expand the reach and impact of NORA through new partnerships and new research endeavors.

Prior to his appointment as Director for NIOSH, Dr. Howard served as chief of the Division of Occupational Safety and Health in the State of California's Department of Industrial Relations since September 1991. In this position, he administered the occupational and public safety programs and directed a staff of nearly 1,000. Dr. Howard was also an assistant professor of environmental and occupational medicine at the University of California at Irvine. He has served as medical director and chief clinician of the Philip Mandelker AIDS Prevention Clinic, an AIDS Community Services Clinic in Los Angeles, and as an assistant counselor to the Under Secretary of Health and Human Services.

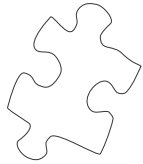
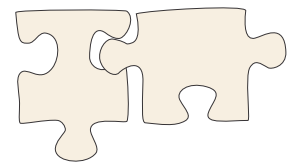
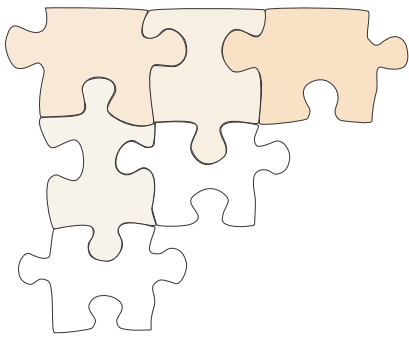
Dr. Howard received his Doctor of Medicine from Loyola University and began his career in occupational health as an internist in the University of California, Los Angeles School of Medicine Pulmonary Fellowship Program at Cedars-Sinai Medical Center in Los Angeles. He received his Master of Occupational Health from the Harvard School of Public Health, his Juris Doctor from UCLA, and his Master of Laws in Administrative Law and Economic Regulation from George Washington University. Dr. Howard is a board-certified occupational physician and has written numerous papers on occupational health law and policy.

Extramural Program

Team Activities

Ongoing Research

NORA Team Meetings & Papers



Spotlight on the Extramural Program

In 2001, NIOSH awarded 194 grants in NORA priority areas to researchers in 33 states and the District of Columbia, as well as Canada and France. The following summarizes recent research findings funded in the NORA priority area of organization of work. This research was jointly funded by NIOSH and the National Institute of Aging.

A study conducted by Dr. Benjamin Amick III (University of Texas' School of Public Health in Houston) and colleagues is the first to demonstrate a link between cumulative work experience in "passive" jobs and a risk of shortened life expectancy. Passive jobs were defined as those in which the individual has both few psychological demands and little job control. Dr. Amick notes "these types of jobs can be considered boring. While we have known for years that these jobs are potentially unhealthy, the strength of the findings in this study is surprising."

The study examined data from the Panel Study of Income Dynamics (PSID), an ongoing longitudinal study of a representative sample of United States residents. The working conditions of over 8000 workers were assessed from 1968 through 1992.

Key findings and aspects of the study are:

- People who worked at jobs with little decision-making opportunities for their entire working life were 43% more likely to die than those with more of these opportunities. This effect could be seen even after adjusting for other significant stressors such as baseline health problems, retirement and periods of unemployment.
- For persons in passive jobs with low psychosocial demands and low control for their working life, the increased risk was 35% and could continue for up to 10 years after leaving the job.

Dr. Amick noted another important study finding. Income does not contribute to the worker's short-term mortality experience. "While the public and our research institutions continue to focus on income as the most important social condition of American life, this research suggests that what people do in their jobs may matter as much or more than whether people are working. We know that organizational changes can enhance worker control, safety and health and create win-win situations. We are often slow to change our approach to organizing work. Hopefully, the findings of this research will inspire innovative changes."

Dr. Richard M. Suzman, Associate Director for the Behavioral and Social Research Program at the National Institute on Aging states "We are very interested in the relationship between health and work, especially cumulative impacts resulting from a lifetime of work." He also adds "These findings set the stage for further research in this area." ■

"Relationship Between All-Cause Mortality and Cumulative Working Life Course Psychosocial and Physical Exposures in the United States Labor Market from 1968 to 1992", Psychosomatic Medicine 64:370-381 (2002).

Benjamin Amick III, PhD is an Associate Professor of Behavioral Sciences and Epidemiology and Associate Director for Training, Education and Leadership Development for the Texas Institute for Society and Health. Dr. Amick received his PhD in social epidemiology from Johns Hopkins University in 1986. He worked at NIOSH in the Applied Psychology and Ergonomics Branch while completing his doctoral dissertation on the health effects of technological change. After working in the Office of Technology Assessment for the U.S. Congress, he completed a post-doctoral fellowship at Yale University in Epidemiology. Throughout his career, Dr. Amick has sought to integrate the disciplines of ergonomics, epidemiology and organizational psychology /sociology in order to create healthy workplaces. Along with colleague John Lavis, he has developed a new framework for conducting research on ways the labor market affects health. He is currently developing new measures to assess how well organizations manage health and safety.

Dr. Amick is a leader in the development of new work outcome measures for evaluating labor market interventions, including occupational health and safety interventions. These new measures are being used to assess the human and economic burden of occupational illness and injuries.



Mark Toraason, NIOSH

NORA Team Activities

In May 2002, the Cancer Research Methods team held a two-day workshop titled "Applying New Biotechnology to the Study of Occupational Cancer." The workshop brought together researchers who study worker populations and those who are developing and validating new biotechnologies. The event was meant to foster collaborations and promote effective applications for better understanding occupational cancer.

Speakers from government agencies, professional societies, universities, and unions provided insight into the latest technologies, studies and methods that could be used to detect and prevent cancer

■ Dr. Martyn Smith from the University of California in Berkeley spoke about the promise of new biotechnologies for assessing occupational carcinogens. One such technology allows the examination of a spectrum of proteins in a single bodily fluid sample. This method is not only quick and inexpensive but promises to change how cancer is diagnosed and predicted in the future. Dr. Smith highlighted another useful technique which recognizes the expression of thousands of molecules, such as antibodies in a single molecule.

■ Frank Mirer, Director of Health and Safety, International Union, United Auto Workers provided a labor perspective and discussed the applications of technology in occupational cancer prevention. He called for technology to be applied to study chemicals that workers are actually exposed to, such as diesel particular matter, silica, welding fumes, and metal-working fluids.

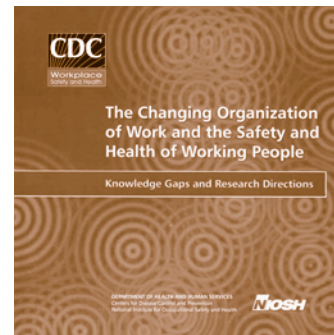
Overall, the event provided a successful forum for discussion and allowed participants to explore the current and future directions of research to prevent occupational cancer. A member of the planning committee, Dr. Aaron Blair, Chief of the Occupational Epidemiology Branch at the Division of Cancer Epidemiology and Genetics at NCI, stated "this meeting is what NORA is all about. It brought together individuals from different areas to discuss an area of occupational health research and explain research needs. All of the presentations were stimulating, and the workshops facilitated an important exchange of ideas."

Publications

- downsizing
- restructuring
- contracting out
- longer working hours
- telecommuting
- flextime
- a grayer and more diverse workforce

The U.S. workplace has changed dramatically in the past two decades. And the changes have occurred quickly, outpacing scientists' ability to gauge their implications for work life quality, job-related stress, and workplace safety and health. A new document by the NORA Organization of Work team, *The Changing Organization of Work and the Safety and Health of Working People: Knowledge Gaps and Research Directions*, is the first national attempt to develop a comprehensive research agenda for addressing these issues. The report provides a framework for a dedicated national agenda highlighting needs for improved surveillance, directions for new research, design of effective interventions, and creation of new partnerships.

To order the publication, contact NIOSH at 1-800-35-NIOSH (1-800-356-4674) or on the web at www.cdc.gov/niosh. ■





Ongoing Research

Work Organization Predictors of Depression in Women

Depression exacts an enormous toll on workers, their families, and their employers—both personally and economically. Working women suffer from depression at nearly twice the rates of working men. Work organization factors such as harassment, discrimination, and balancing work and family responsibilities may contribute to the higher levels of depression among women. A NIOSH study will examine the relationship between work organization stressors and depression. Study findings will provide valuable knowledge of workplace factors that may lead to depression among working women, as well as information on workplace policies and programs that can reduce the prevalence of the disease in this population. This prospective study is expected to be completed by September 2005.

Evaluating the Effectiveness of Hearing Loss Prevention Interventions—A NORA Research Priority

An estimated 2.9 million workers in the construction industry are exposed to potentially damaging noise levels. A NIOSH study of over 600 carpenters found that by age 25, carpenters have hearing equivalent to that of a 50-year-old non-noise exposed worker and by 55 years of age, most carpenters need hearing aids. When evaluating the potential economic impact of hearing loss among workers, the United Brotherhood of Carpenters determined that it would cost their union one-half billion dollars to provide the first pair of hearing aids to their members. Lack of or improper use of

hearing protectors in noisy environments contributes to the high incidence of hearing loss among carpenters. Current estimates show that only 17% of carpenter apprentices wear hearing protectors properly.

NIOSH researchers have developed training methods to help carpenter apprentices understand their risk of occupational hearing loss and learn ways to protect their hearing from hazardous noise. These methods are the subject of a 3-year field study that begins this month. The field study will assess how well different hearing loss prevention training, and educational materials influence carpenters actual use of hearing protectors. The results of this effort will be used to develop effective, efficient hearing loss prevention programs for carpenters and other construction workers.

Addressing Occupational Asthma

Over nine million workers in the U.S. are potentially exposed to irritants and sensitizers that can cause or exacerbate asthma. Workplace asthma is recognized and reported with increasing frequency but has been a challenge to investigate and prevent. The methods and strategies used to assess exposures to asthma-triggering substances require additional development and refinement.

Through NORA, NIOSH has initiated a multi-disciplinary program called Research for Occupational Asthma Reduction (ROAR). The goal of this program is to improve understanding of workplace asthma and generate effective prevention interventions. ROAR is monitoring the occurrence of occupational asthma, evaluating the effectiveness

of interventions, developing new methods for monitoring work environments, reviewing asthma cases from field investigations and surveillance systems, and encouraging interaction and communication among NIOSH investigators and extramural scientists.

The program builds on current capabilities to translate research into useful recommendations. The common understanding developed through ROAR investigations has the potential to change the way we understand, respond to, and prevent occupational asthma. ■

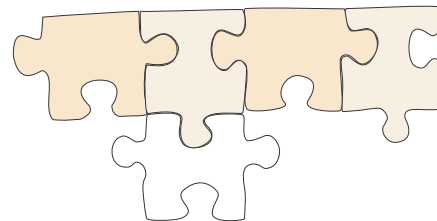
NORA Team Meetings and Papers

The **NORA Mixed Exposures team** held a two-day meeting in Arlington, VA in May 2002 and organized their research topics into several main areas: Hazard Identification; Effects Studies; Exposure Methods, Monitoring, and Models; Biomarkers; Risk Assessment; and Controls. The group identified 11 key research priorities for mixed exposure research, which will soon be published as a NIOSH document.

The **Asthma/COPD team** sponsored a meeting with the American Thoracic Society (ATS) to revise the 1978 ATS/DLD Respiratory Disease Questionnaire. At the meeting, recommendations for occupational exposure and respiratory disease questions were finalized for inclusion in the adult core questionnaire. The revised questionnaire will contain more questions related to occupational issues than the 1978 version, and will serve as a resource for researchers in the U.S. and around the world.

The **Exposure Assessment Methods team** is currently preparing a journal article that addresses definitions used in the field of exposure assessment. This team has proposed specific definitions and priorities for research in four key areas: study design, monitoring methods, applied toxicology, and education and communication.

The **Fertility and Pregnancy Abnormalities team** has submitted its research paper for publication. "An Occupational Reproductive Research Agenda for the



Third Millennium" discusses recommendations for future directions in research to reduce the incidence of adverse reproductive health outcomes. The purpose of the report is to bridge interdisciplinary gaps so that the scientific community can work together to improve reproductive health and reduce adverse outcomes.

The **Infectious Diseases team** is completing a white paper detailing research needs in occupational infectious diseases. This white paper will be published in an edition of *Occupational Medicine: State of the Art Reviews* in the first quarter of 2003. The paper will address the broad range of infectious diseases that can be acquired on the job. It will include a discussion of research needs in protecting workers from biological warfare agents, an area now widely recognized as being critically important.

The **Indoor Environment team** paper "Improving the Health of Workers in Indoor Environments: Priority Research Needs for a National Occupational Research Agenda" was recently published by the *American Journal of Public Health (AJPH)*. The paper outlines research priorities in indoor work environments. Implementation of this research agenda will provide the basis for policies of employers and unions, building owners and managers, financial institutions, professional associations, and government agencies. (Mendell MJ, Fisk WJ, Kreiss K, et al., "Improving health of workers in indoor environments: priority research needs for the National Occupational Research Agenda," *American Journal of Public Health* 2002, v. 92: pp. 1430-40.)

The **Cancer Research Methods Team** is completing a document, "Priorities for Development of Research Methods in Occupational Cancer." The paper is a result of combined efforts of a team of experts from various sectors to define the research needs and strategies to enhance or augment occupational cancer research. The paper identifies research gaps in four broad areas: identification of occupational carcinogens, design of epidemiological studies, risk assessment, and primary and secondary prevention.

