


## NIOSH: A Short History

 See also Rothstein, p. 613, and the *AJPH OSHA @50* section, pp. 621–647.

The National Institute for Occupational Safety and Health (NIOSH) was established in Section 22 of the Occupational Safety and Health (OSH) Act of 1970 and placed in the Department of Health and Human Services (HHS).<sup>1</sup> Introduced by Senator Jacob Javits as an amendment to the OSH Act, the idea was that a research program, separate and independent from the regulatory agency, would be able to generate objective scientific research findings in the field of occupational safety and health.<sup>2</sup> The Act gave NIOSH authority to conduct research in a broad range of occupational safety and health topics.<sup>3</sup> Among the research responsibilities are conducting studies of psychological factors and industrywide exposures, developing exposure criteria for toxic materials and harmful physical agents, and responding to a request from an employer or employee to perform a health hazard evaluation. The Act also provided NIOSH with “right-of-entry” authority to make inspections and question employers and employees.<sup>4</sup> Finally, the Act makes clear that NIOSH is to produce research that can enable the Occupational Safety and Health Administration (OSHA) to formulate safety and health standards. NIOSH was also directed to conduct education programs, directly or through grants, to provide an adequate supply of safety

and health specialists to carry out the purposes of the OSH Act and on the proper use of safety and health equipment.<sup>5</sup>

### 1970–1979

The first decade was busy for NIOSH. In 1971, NIOSH published its first Criteria for a Recommended Standard on asbestos and the first Toxic Substances List. In 1974, the NIOSH/OSHA Standards Completion Program became the basis for 387 new OSHA standards. In 1975, the first Current Intelligence Bulletins were published. Grants for the first nine Education and Research Centers were awarded in 1977, later doubling to 18 by 2020. In 1978, the *Pocket Guide to Chemical Hazards* first published, and updates to the *Pocket Guide* continue to be published to this day.

### 1980–1989

As the service sector grew in the 1980s, NIOSH led pioneering research on emerging safety and health concerns. These included indoor environmental quality in office buildings, job-related musculoskeletal injuries, workplace violence, latex allergy among health care workers, and risks of occupational exposures to bloodborne pathogens. In 1986,

NIOSH released a strategic plan for the top-10 work-related diseases and injuries called the Proposed National Strategies for the Prevention of Leading Work-Related Diseases and Injuries. Also in 1986, NIOSH launched a collaboration with the United Nations’ International Labor Organization Program on Chemical Safety to establish peer-reviewed hazard communication cards (International Chemical Safety Cards).

### 1990–1999

As the workplace changed, NIOSH continued to adapt its research. In 1990, NIOSH awarded grants to establish its first Centers for Agricultural Health and Safety, which now number 11 centers across the United States. NIOSH issued a Current Intelligence Bulletin in 1991 on secondhand smoke in the workplace, which had become a major indoor air quality issue. In the mid-1990s, then-NIOSH director, Linda Rosenstock, MD, launched the National Occupational Research Agenda in response to an effort in Congress to eliminate NIOSH. This public-private partnership

among industry, labor, and government to develop research priorities is now in its third decade. The first publication to represent this new model for conducting research through partnership was the NIOSH-issued Engineering Control Guidelines for Hot Mix Asphalt Pavers published in 1997. Responding to a surge in violence against workers, in 1996, NIOSH issued findings and recommendations for preventing workplace homicides and assaults. In 1997, NIOSH research identified a new lung disease in nylon flocking industry workers.<sup>6</sup> That same year, authority for conducting mine safety research was transferred to NIOSH after the US Bureau of Mines was closed. This brought into NIOSH specialists in mine safety engineering and two new sites in Pittsburgh, Pennsylvania, and Spokane, Washington. As the 1990s ended, NIOSH published recommendations for prevention of allergic reactions to natural rubber latex in the workplace, made recommendations for preventing job-related stress, and recommendations for preventing work-related needlestick injuries.

### 2000–2009

NIOSH began the 2000s with a new program conducting

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occupational radiation dose reconstructions for atomic weapons industry workers with cancers who filed claims for compensation under the Energy Employees Occupational Illness Compensation Program Act of 2000. In response to the September 11, 2001, terrorist attacks in New York City, at the Pentagon, and near Shanksville, Pennsylvania, NIOSH provided technical assistance for rescue and recovery workers. In 2002, NIOSH scientists published their research findings about a new lung disease found in workers at a series of microwave-popcorn plants.<sup>7</sup> In 2004, NIOSH launched its Research-to-Practice initiative to speed the adoption of new research findings into practice to benefit workers. Also in 2004, NIOSH began what is now called the Total Worker Health Program, championing policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury- and illness-prevention efforts to advance worker well-being. In 2006, NIOSH commercialized two NIOSH-designed field methods to help first responders, public health officials, and remediation workers quickly detect the presence of methamphetamine on various environmental surfaces. In 2007, NIOSH took the first step in engaging an online community by launching the NIOSH Science Blog. Since then, NIOSH has expanded to developing smartphone apps on various topics and is actively engaged on social media.

## 2010–PRESENT

The decade began as NIOSH partnered with multiple government agencies to provide technical assistance during the

Deepwater Horizon disaster in the Gulf of Mexico. In 2011, the Congress authorized the World Trade Center Health Program, a federal health plan that provides medical care to responders and community survivors of the September 11, 2001, terrorist attacks, naming the NIOSH director the administrator of the World Trade Center Health Program. To date, more than 100 000 responders and survivors have become members of the World Trade Center Health Program. In 2016, NIOSH published revised criteria for a standard on occupational exposure to heat and hot environments. As the decade ends, NIOSH is turning its attention to various future of work issues involving sensor technology, collaborative robots, exoskeletons, artificial intelligence, and advanced manufacturing.

## FUTURE

NIOSH continues to carry out research on emerging workplace hazards, respond to requests for health hazard evaluations, conduct intervention studies, and publish authoritative recommendations. In the five decades since the passage of the OSH Act, NIOSH has grown. NIOSH now has facilities and laboratories in six states and the District of Columbia with a staff of nearly 2000 researchers and support personnel. In the last 50 years, the jobs workers do, the hazards they face, and the way their work is organized have also changed. After 50 years, one can take the measure of an organization by asking how well it has carried out its mission: Has it been sufficiently flexible to meet inevitable social, economic, and technological changes? Has it provided the benefits to workers

that it was intended to provide? Is it well-positioned to meet ongoing workplace changes that the next 50 years will bring? After five decades of NIOSH history, the answer is yes to all three questions. **AJPH**

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## CONFLICTS OF INTEREST

The author has no conflicts of interest.

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