

The Global Health Activities of

CDC'S NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

In farms, factories, stores, and office buildings around the world, the everyday task of earning a living can turn from routine to dangerous. Each year, an estimated 120 million people worldwide are injured at work; approximately 200,000 of these injuries are fatal. In addition, between 68 and 157 million new cases of illness are caused by workplace exposures to chemicals or other toxins.

How can workplace deaths, injuries, and illnesses be prevented? An important first step is the development of basic occupational safety and health (OSH) capacity in every country. These programs – designed to identify, assess, and control workplace hazards – have the potential to protect working populations around the world, benefit overall public health by reducing the toll of injury and disease, and contribute to improved socioeconomic status by improving productivity and reducing the costs associated with these hazards.

CDC's National Institute for Occupational Safety and Health (NIOSH) works with partners in countries around the world and with international organizations (such as WHO, PAHO, and ILO) to help build OSH infrastructure and capacity around the world. This includes building the capacity for monitoring injuries and diseases to identify risk factors, designing engineering or other solutions to help prevent these hazards, sharing up-to-date information about work-related threats to health and safety, and pooling resources so that research findings can be applied quickly and effectively wherever hazards pose a threat to the safety of workers.

Examples of how NIOSH contributes to CDC's global health objectives in each of five strategic areas are provided below.

PUBLIC HEALTH SURVEILLANCE AND RESPONSE

NIOSH staff often respond to requests for assistance from their counterparts in other countries, leading to the transfer of knowledge and skills as well as improved understanding of specific occupational health hazards. For example, NIOSH staff recently assisted with investigations of mercury exposures among gold miners in Venezuela and Ecuador, lead exposures at a smelter facility in Peru, and asbestos exposure at schools and health facilities in Trinidad. NIOSH laboratories also host visiting scientists who receive long-term training in OSH-specific surveillance techniques.

PUBLIC HEALTH INFRASTRUCTURE AND CAPACITY-BUILDING

Building OSH-specific infrastructure and capacity is a central feature of NIOSH's global health work. Recent collaborations with OSH counterparts in South Africa, Korea, Mexico, and Vietnam have helped build OSH capacity in these countries through visits by NIOSH researchers, long-term assignments, training workshops, equipment loans, and an exchange of information and ideas. In addition, NIOSH staff work closely with WHO and the National Institutes of Health's Fogarty International Center to support international training and infrastructure development. In connection with the WHO collaboration, NIOSH has seconded a senior scientist who is serving as the Team Leader for the Occupational Health Group within WHO's Office of Occupational Environmental Health in Geneva.





DISEASE AND INJURY PREVENTION AND CONTROL

Along with partners from the United States, Mexico, and Canada, NIOSH staff helped develop the *North American Guidelines for Children's Agricultural Tasks (NAGCATs)*, which are designed to prevent injuries among youth by helping farmers make safer decisions about the farm tasks assigned to this vulnerable age group. NIOSH scientists also have helped develop and install engineering controls to prevent tuberculosis transmission to hospital staff and patients. NIOSH staff have been actively involved in mine safety projects in Australia, Canada, Poland, and South Africa.



APPLIED RESEARCH FOR EFFECTIVE HEALTH POLICIES

Through a collaboration with Scandinavian occupational health institutes, NIOSH staff have developed a series of research-based recommendations for occupational safety and health standards. In China, NIOSH staff collaborated with Chinese scientists to assess early declines in lung function among coal miners during the first years of employment in the mining industry. This research will be used to develop screening recommendations for miners and other workers exposed to dusts.



EXCHANGE OF INFORMATION AND LESSONS LEARNED

NIOSH works closely with a variety of international agencies and organizations to share information on occupational health and safety and to help develop international standards to monitor and prevent work-related injury and disease. These include a partnership with WHO's Prevention and Control Exchange (PACE) project (which disseminates affordable and effective hazard control techniques to small business around the world); working with WHO's International Programme on Chemical Safety (IPCS); developing international ergonomics guidelines with the International Ergonomics Association; harmonizing international standards through participation in the International Standards Organization (ISO); providing training and workshops on a variety of OSH topics; and convening researchers from around the world so they can share innovative ideas and research results with one another.



WHO COLLABORATING CENTERS

- ▶ *WHO Collaborating Center for Occupational Safety and Health*



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