

# Occupational Safety and Health



RTI International conducts rigorous, scientific research to help prevent work-related injuries and illnesses. We plan and carry out studies that measure health and safety outcomes; explore work organization, safety climate, and other human factors affecting those outcomes; investigate personal protective equipment; and measure and identify the consequences of exposures and other risk factors. RTI also supports government strategic planning and policy development related to occupational safety and health.

## RTI's Occupational Safety and Health Team

RTI's occupational safety and health experts include epidemiologists, industrial hygienists, statisticians, industrial/organizational psychologists, engineers, public health scientists, economists, biologists, environmental scientists, technicians, and survey specialists.

## Our Research Focus

Our work involves four broad areas of research:

- **Policy and program development**—We develop strategically focused information for policy makers and program managers to assess current needs, develop policy options, and provide ongoing, programmatically relevant monitoring and evaluation.
- **Information gathering**—We systematically collect high-quality data using scientifically rigorous study protocols. Methods include onsite surveys; phone, mail, and web-based acquisition portals; and laboratory testing.
- **Scientific analysis**—We use appropriate statistical, technical, and qualitative techniques and tools to focus on answering key research questions. We collaborate with stakeholders to identify relevant evidence and define needed information. Studies range from case studies to randomized controlled trial designs and

involve a wide array of occupations, industries, and risk factors.

- **Research to practice**—We promote effective use of research findings through structured design and testing of health and safety communication materials and media, and through active engagement with scientific, policy, practitioner, and other stakeholder communities.

## Our Expertise

- Conduct benchmarking studies and policy analyses
- Evaluate programs to identify effective interventions
- Conduct systematic literature reviews and environmental scans
- Conduct surveys, surveillance, focus groups, and interviews
- Conduct pilot, feasibility, and market studies
- Collect environmental and biological samples
- Perform statistical and qualitative analyses
- Conduct cost-effectiveness and other economic analyses
- Identify and engage stakeholders
- Develop tailored materials to disseminate study findings
- Perform analytical assessments of toxic substances
- Test personal protective equipment (PPE)

## Selected Project Highlights

### Policy and program development

- Benchmarked the European Union's system of conformity assessment for PPE
- Created a draft national policy framework for PPE conformity assessment
- Assessed the feasibility of introducing occupational safety and health educational materials in schools
- Identified and recruited partners to raise awareness among young workers about health and safety issues

### Program evaluation

- Analyzed survey data to assess hospitals' adherence to respiratory protection program guidelines
- Conducted an evaluation of NIOSH's Fire Fighter Fatality Investigation and Prevention Program
- Identified barriers experienced by small retail businesses in implementing a violence prevention program
- Evaluated an intervention program targeting work-family conflict in the long-term care and high-tech industries
- Assessed the feasibility of collecting independent contractor information in the mining sector
- Investigated the impact of worksite health promotion training for employers

### Survey planning and statistical support

- Assessed the statistical validity of a proposed test to measure the fit of respirators
- Conducted cognitive reviews and pilot-tested questionnaires for a survey of pesticide applicators in agricultural settings

### Information gathering

- Conducted surveys of health care staff about occupational exposures related to asthma
- Surveyed female workers concerning workplace factors that predict depression

- Developed the World Trade Center Health Registry
- Collected medical monitoring data for the Tremolite Asbestos Registry

### Market assessments

- Conducted several market landscape surveys of companies handling nanomaterials
- Prepared a market study of the domestic fiberglass industry to support efforts to promote safer alternatives

### Risk factor and outcome investigations

- Collected and analyzed survey and biospecimen data from bar and restaurant employees on the impact of smoke-free air policies
- Assessed the economic burden of injury in the United States
- Studied work organization and ergonomic risk factors for truck drivers' lower back pain

### Testing and analysis

- Characterized asbestos samples for use as round robin test materials
- Tested personal protective garments against aerosol penetration using human subjects

### Dissemination

- Developed the Asthma Cost Calculator
- Serving as the World Trade Center Data Center
- Created research-based materials to promote strategies for preventing prescription drug abuse
- Prepared materials and articles to promote respiratory protection guidelines for health care workers

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### More Information

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