

What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Respiratory Health Program works with a diverse range of partners in industry, labor, trade associations, professional organizations, academia, and other governmental agencies. The program focuses on:

- Protecting workers from respiratory diseases that are caused or made worse by work exposures
- Optimizing workers' respiratory health

What do we do?

The program works with partners to conduct research, share information (including state-of-the-art recommendations), provide services, and transfer research findings into practice. Examples include:

- Provide useful national data tracking the burden of work-related respiratory disease and the amounts and types of hazardous workplace respiratory exposures.
- Provide health screening and surveillance services to U.S. coal miners under a program mandated by Federal law called the Coal Workers' Health Surveillance Program. We help individual miners through early disease detection and provide group data to guide broader prevention activities.

- Conduct multidisciplinary research needed to identify respiratory hazards, characterize their risks, and design, validate, and disseminate effective interventions.
- Contribute to the NIOSH Health Hazard Evaluation Program by responding to requests for evaluations of potential respiratory hazards and providing recommendations for solutions.
 - Certify courses that train technicians to perform spirometry (a type of lung function testing).
 - Provide training and certification testing to physicians who classify chest x-rays for findings of pneumoconiosis using the International Labour Organization's classification system.

What have we accomplished?

- Conducted workplace investigations through the Health Hazard Evaluation Program at 10 coffee production facilities in 2016 to characterize exposures to diacetyl and other flavoring chemicals, assess respiratory health outcomes, and recommend ways to prevent lung disease.
- Completed mold and dampness exposure assessments at 50 schools in Philadelphia in collaboration with labor and management, and sponsored 3-day indoor environmental quality training.
- Developed infrastructure to support confidential spirometry testing of coal miners, as required by new Mine Safety and Health Administration Respirable Coal Mine Dust rule.
- The Coal Workers' Health Surveillance Program provided 5,881 chest x-ray screening examinations in 2016.
- Published important reports on key contemporary work-related respiratory health issues:
 - *Resurgence of Progressive Massive Fibrosis in Coal Miners - Eastern Kentucky, 2016*
 - *Notes from the Field: Respiratory Symptoms and Skin Irritation Among Hospital Workers using a New Disinfectant Product--Pennsylvania, 2015*
 - *Environmental Characterization of a Coffee Processing Workplace with Obliterative Bronchiolitis Risk*
 - *Asthma among Employed Adults, by Industry and Occupation - 21 States, 2014*

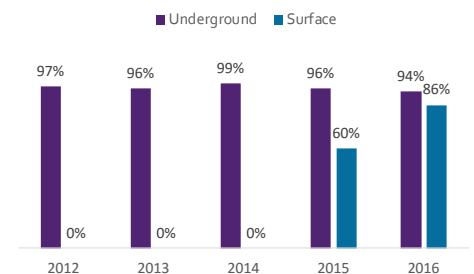
What's next?

- Progressively expand access to spirometry services for coal miners under the Coal Workers' Health Surveillance Program.
- Evaluate effectiveness of engineering controls to limit exposures to diacetyl and other flavoring chemicals in coffee production facilities.
- Establish a framework ("information model") for including industry/occupation information in electronic health records through a NIOSH-wide project coordinated by the Respiratory Health Program.
- Produce a video entitled *Spirometry Testing in the Occupational Setting* to support NIOSH-approved spirometry training courses.
- Develop updated materials for training and evaluating competency in classifying chest x-rays.

At-A-Glance

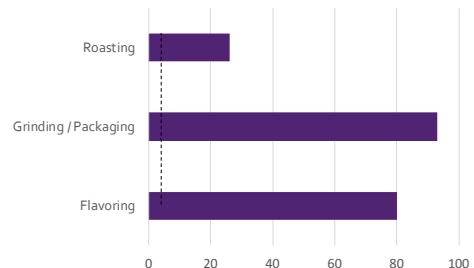
The Respiratory Health Program mission is to provide national and international leadership to prevent work-related respiratory diseases and optimize workers' respiratory health. This snapshot shows recent accomplishments and upcoming work.

Percent active coal mines with health surveillance plans: Underground and Surface



Source: NIOSH program records. The MSHA rule mandating health surveillance for surface coal miners became effective August 2014. The surface mine portion of the graph does not include combined underground/surface mines.

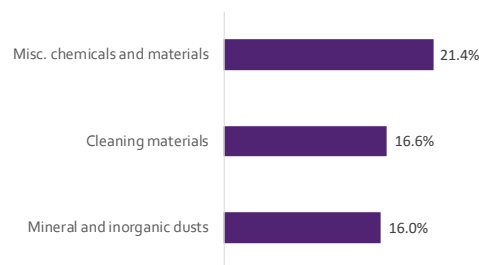
Mean personal concentration (ppb) of diacetyl in a coffee production facility



Dotted line is the 5 ppb NIOSH recommended 8-hour time-weighted average exposure limit

Source: J Occup Environ Hyg 2016;13(10):770-781.

Three most frequently reported agent categories for work-related asthma cases, 2009-2011, as % of all cases



Source: NIOSH Work-Related Lung Disease Surveillance System (eWORLD)

To learn more, visit
<https://www.cdc.gov/niosh/programs/resp/>