

# Cancer, Reproductive, Cardiovascular and Other Chronic Disease Prevention Program

## What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Cancer, Reproductive, Cardiovascular and Other Chronic Disease Prevention (CRC) Program works with partners in industry, labor, trade associations, professional organizations, and academia. The program focuses on preventing and reducing:

- Occupational cancer incidence
- Incidence of adverse reproductive outcomes related to work
- Occupational cardiovascular disease (CVD) incidence
- Occupational neurologic and renal disease incidence

## What do we do?

- Conduct research on occupational cancer in high priority worker populations and exposures, and communicate findings.
- Conduct research on high-priority agents to identify and quantify risk of adverse reproductive health outcomes associated with workplace factors, and communicate findings.
- Assess the association of workplace factors and exposures with sub-clinical/clinical CVD using a variety of methods.
- Investigate emerging diseases such as chronic kidney disease in agricultural workers.
- Create documents to assist stakeholders in CRC prevention efforts.
- Promote use of CRC research by authoritative organizations, such as the Occupational Safety and Health Administration, National Toxicology Program, International Agency for Research on Cancer, and National Fire Protection Agency.
- Collaborate with external researchers to evaluate occupational risk factors in pre-existing health studies.

## What have we accomplished?

- Initiated the National Firefighter Registry to better understand the risk of cancer among firefighters, after the passage of the Firefighter Cancer Registry Act of 2018.
- Characterized the physical/chemical properties of airborne emissions from 3D printing, and used data to assess lung cell toxicological effects in a real-time exposure testing system.
- **Published** a study and a short video showing that, despite longstanding recommendations for safe handling, 12% of non-pregnant nurses and 9% of pregnant nurses reported they never wore gloves when administering anti-cancer drugs.
- Published two studies showing 1) **mild steel welding fume** promotes lung cancer and 2) **iron oxide in mild steel welding fume** may be the main contributor to promoting lung cancer in an animal model.

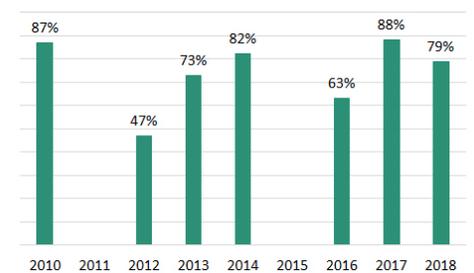
## What's next?

- Conduct a study of exposures to elongate mineral particles found in mining and evaluating lung toxicity response to identify early markers of asbestos-like disease, including cancer.
- Evaluate how co-exposures to job-level particles, stress, noise, heat, community, and social events determine risk for long-term lung and cardiovascular disease.
- Update the NIOSH *List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings*, and publish NIOSH Document on *Managing the Occupational Health Risks of Hazardous Drug Exposure in Healthcare Settings*.
- Publish Request for Information in the Federal Register to seek input from stakeholders and the public on the design of the National Firefighter Registry.

## At-A-Glance

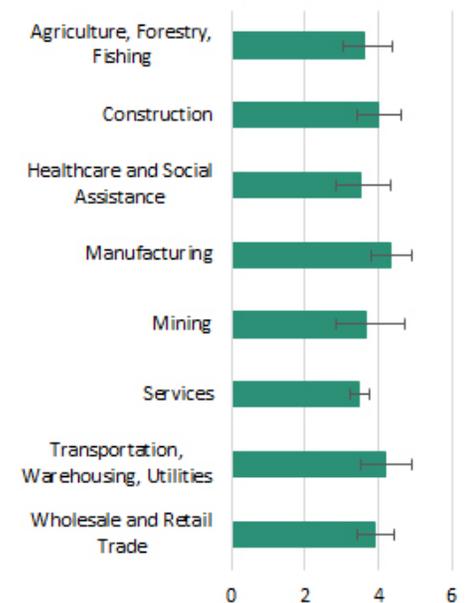
The Cancer, Reproductive, Cardiovascular and Other Chronic Disease Prevention Program provides leadership in preventing work-related diseases related to many types of cancer, reproductive health, and cardiovascular diseases, as well as occupational neurologic and renal diseases. This snapshot shows recent accomplishments and upcoming work.

### Percent of International Agency for Research on Cancer evaluations citing CRC Program work



Source: International Agency for Research on Cancer (IARC)  
 Note: No evaluations were published in 2011 and 2015;  
 Includes only evaluations of occupationally relevant agents

### Unadjusted Prevalence (%) of Ever Diagnosed with CVD (Stroke, Heart Attack, or CHD/Angina) Among Workers by Industry



To learn more, visit  
[www.cdc.gov/niosh/programs/crcd](http://www.cdc.gov/niosh/programs/crcd)

<https://doi.org/10.26616/NIOSH PUB 2019170>  
 DHHS CDC (NIOSH) Publication No. 2019-170