Asbestos-related cancers and respiratory diseases among sheet metal workers

Mortality among sheet metal workers participating in a medical screening program

John Dement, Laura Welch, and Gavin West. CPWR Report, April 2014.

Overview

Researchers followed a cohort of 17,345 individuals with 20 or more years in the trade, identifying the cause of death in order to examine overall patterns of mortality as well as mortality due to work-related lung diseases including asbestosis, asbestos-related cancers, and COPD (Chronic Obstructive Pulmonary Disease). Sheet metal workers in the sample proved to be at a significantly elevated risk of death from asbestosis, mesothelioma, and pleural cancer. Workers demonstrating asbestosis exhibited higher lung cancer rates, and evidence suggested that asbestos exposures may increase lung cancer risk even in the absence of asbestosis.

Key Findings

- Sheet metal workers, although their exposure to asbestos is largely intermittent and indirect, demonstrated increased risk of dying from asbestos-related diseases.
- Sheet metal workers in the sample population demonstrated greatly elevated mortality from asbestosis, pleural cancers, and mesothelioma when compared to the general population. The sheet metal workers with twenty or more years at the trade were twelve times more likely to die of asbestosis than the average American worker, and seven times more likely to die from mesothelioma or pleural cancers.
- Workers diagnosed with asbestosis were at elevated risk of lung cancer and the risk increased as the severity of scarring (as measured by ILO profusion scores) increased.
- Even workers who had not developed asbestosis (i.e. with ILO profusion scores <1/0) exhibited elevated rates of lung cancer, pleural cancer and mesothelioma.
- Increased interstitial markings on chest x-rays and years in the trade were predictive of death from COPD, suggesting a relationship between asbestos exposure and COPD mortality.

For more information, contact:
John Dement: john.dement@duke.edu

See full report:
http://bit.ly/1sbncKM

©2014, CPWR – The Center for Construction Research and Training. CPWR, the research and training arm of the Building and Construction Trades Dept., AFL-CIO, is uniquely situated to serve construction workers, contractors, practitioners, and the scientific community. This card was made possible by a cooperative agreement with the National Institute for Occupational Safety and Health, NIOSH (CH003762). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.