Work in Brief

Keith Palmer, *Editor*

Susceptibility to Air Pollution

Although the association between daily mortality and ambient fine particulate matter (particles <2.5 μm in diameter ($PM_{2.5}$)) is well recognised, less is known about the effects in potentially susceptible sub-populations. Ostro *et al*[1] have now explored associations of daily cardiovascular mortality with $PM_{2.5}$ and its chemical constituents, including elemental carbon, organic carbon, nitrates, sulphates, potassium, copper and iron, using data from 6 Californian counties during 2000 to 2003. In most cases, significantly greater health impacts on mortality were found among those with low educational attainment and those with Hispanic origin than in other groups. It seems that being disadvantaged may increase susceptibility to $PM_{2.5}$ and its sub-components.

Health Status During Disability Pensioning

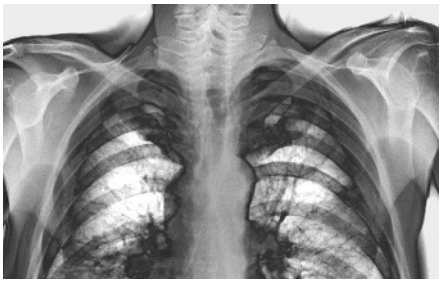
A significant number of workers end up on a permanent disability pension, but the health consequences of this major life change have seldom been studied. Overland *et al*,[2] now report changes in health around the time such pensions are awarded, using data from the Norwegian population-based Hordaland Health Study. From the records of some 18,500 individuals, linked to official disability registers, they identified 1,087 participants awarded a disability pension before, during, or after an associated health survey. An inverse U-shaped trend with self-reported symptoms (anxiety, depression, pain, sleep problems and somatic symptoms) was found, with increases approaching the decision date and declines thereafter. By contrast, no similar trend was found with objective health measures, such as changes in blood pressure, prescribed medications, or physical diagnoses. Health was no worse by most measures 3–7 years after the award than in the 3–7 years before it. The findings may reflect temporary adverse health effects from the process, or possibly the benefit of relinquishing harmful work.

Domestic Exposure to Blue Asbestos

Knowledge of mortality patterns following exposure to asbestos arises largely from studies in male industrial cohorts. Women are more usually exposed domestically or environmentally. Few studies of bystander exposure in women have been large scale and little is known about exposure-response relationships in this context. Reid *et al*[3] now report a mortality study involving over 2500 women and girls who lived in the blue asbestos mining and milling township of Wittenoom between 1943 and 1992 and were not employed in local asbestos operations. Estimates of exposure came from dust surveys in the industry and the township. Among 425 deaths were 30 from mesothelioma. Excesses of mortality were found across a range of diseases, including lung cancer (SMR 2.15), pneumoconiosis (11.8), upper aerodigestive cancers (2.7) and tuberculosis (5.38). Mortality risk from mesothelioma was also elevated in residents who had lived with, or washed the clothes of a blue asbestos worker. The exposure-response relation for mesothelioma proved similar to that in occupationally exposed men from Wittenoom.

Elsewhere in the Journal

This month's journal also includes an investigation of hourly changes in fine particle exposure and transient ST depression in elderly individuals with coronary heart disease;[4] an analysis of lung cancer risk and exposure to arsenic in drinking water;[5] and a systematic review concerning the impact of chronic health problems on risks of occupational injury.[6]



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