## Introduction

**Asian context**

Unique study on workers exposed primarily to blue asbestos.

**Critical appraisal**

A historical cohort study on nearly 7,000 male former miners and millers at Wittenoom, Australia producing blue asbestos. Main findings were increased mortality from lung cancer (SMR = 1.52), pneumoconiosis (SMR = 15.5), respiratory diseases (SMR = 1.58) and tuberculosis (SMR = 3.06).

**Unique keywords**

Wittenoom, Australia, crocidolite, mining, milling, occupational exposure, mesothelioma

## Abstract

Background: Blue asbestos was mined and milled at Wittenoom in Western Australia between 1943 and 1966.

Methods: Nearly 7,000 male workers who worked at the Wittenoom mine and mill have been followed up using death and cancer registries throughout Australia and Italy to the end of 2000. Person-years at risk were derived using two censoring dates in order to produce minimum and maximum estimates of asbestos effect. Standardized mortality ratios (SMRs) compare the mortality of the former Wittenoom workers with the Western Australian male population.

Results: There have been 190 cases of pleural and 32 cases of peritoneal mesothelioma in this cohort of former workers at Wittenoom. Mortality from lung cancer (SMR = 1.52), pneumoconiosis (SMR = 15.5), respiratory diseases (SMR = 1.58), tuberculosis (SMR = 3.06), digestive diseases (SMR = 1.47), alcoholism (SMR = 2.24) and symptoms, signs and ill defined conditions (SMR = 2.00) were greater in this cohort compared to the Western Australian male population.

Conclusions: Asbestos related diseases, particularly malignant mesothelioma, lung cancer and pneumoconiosis, continue to be the main causes of excess mortality in the former blue asbestos miners and millers of Wittenoom.
In a historical cohort study on nearly 7,000 male former miners and millers at Wittenoom, Australia producing blue asbestos followed up to year 2000, 190 cases of pleural mesothelioma and 32 cases of peritoneal mesothelioma were observed.

Mortality risks from lung cancer (SMR 1.52; 1.35-1.71), pneumoconiosis (SMR 15.48; 95% CI, 12.5-19.0), respiratory diseases (SMR 1.58; 1.39-1.79), tuberculosis (SMR 3.06; 1.58-5.35) and digestive diseases (SMR 1.47; 1.21-1.77) were increased among male former blue asbestos workers.

Asbestos related diseases (mesothelioma, lung cancer and pneumoconiosis) continue to be the main causes of mortality among male former blue asbestos workers.