

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

C. Epidemiology of ARDs

No./Title

12. Asbestosis-related years of potential life lost before age 65 years – United States, 1968–2005

Author/Contributor

Castellan RM, Middendorf PJ

Bibliographic ID

MMWR Morbidity and Mortality Weekly Report 2008 Dec;57(49):1321-5

Introduction

Asian context

Asbestos causes premature mortality in asbestosis patients during the most productive years of life, which fact should also be considered in Asian countries.

Critical appraisal

A rare paper investigating premature mortality caused by asbestosis which may serve as a model paper for other ARDs.

Unique keywords

Years of potential life lost (YPLL), asbestosis

Abstract



Exposure to asbestos fibers can cause asbestosis and other diseases after a latency of 10-40 years from initial exposure to onset of illness. Asbestos still is used in the United States (approximately 2,200 metric tons in 2006) in certain products manufactured domestically. In addition, an undocumented amount of asbestos continues to be imported in products manufactured elsewhere, and a substantial amount of asbestos remains in existing buildings and manufactured products. An estimated 1.3 million construction and general industry workers in the United States potentially are exposed to asbestos each year, mainly from manipulation of asbestos during renovation or demolition activities. Also, although asbestos ore is no longer mined in the United States, some U.S. mine workers might remain at risk for exposure to asbestos contained in other ores. To characterize trends in premature mortality attributed to asbestosis in the United States, CDC analyzed annual underlying cause-of-death data for 1968-2005, the most recent years for which data were available. This report describes the results of that analysis, which indicated that annual years of potential life lost before age 65 years (YPLL) attributed to asbestosis increased 64%, from an average of 146.0 YPLL per year during 1968-1972 to 239.6 per year during 2001-2005 (regression trend for the 5-year moving average, $p < 0.001$), for an overall total of 7,267 YPLL (mean per decedent: 6.2) over the entire period. These results demonstrate that asbestosis-attributable YPLL continue to occur and that efforts to prevent, track, and eliminate asbestosis need to be maintained.

Annotation

Fact 1

- In the USA during 1968-2005, asbestosis was identified as the underlying cause of death for 9,024 decedents.

Fact 2

- The majority of asbestosis decedents aged 25-64 years were male (1,125; 96.2%) and white (1,064; 91.0%), accounting for 7,038 (96.8%) and 6,470 YPLL (89.0%) (Years of Potential Life Lost), respectively.

Fact 3

- YPLL attributed to asbestosis deaths increased 64%, from an average of 146.0 per year during 1968-1972 to 239.6 per year during 2001-2005 (regression trend, $p < 0.001$).

Fact 4

- The greatest industry-specific YPLL values are associated with work in construction (244 YPLL), and ship and boat building and repairing (41 YPLL).

Fact 5

- Occupations reported with the greatest YPLL are insulation workers (112 YPLL), managers and administrators (43 YPLL) and plumbers, pipefitters, and steamfitters (42 YPLL).

References