

Epidemic of Asbestos-Related Diseases

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Abridged slide presentation

Abstract

In Japan, the consumption of asbestos, which is almost equal to the amount of asbestos imported due to negligible mining capacity, was minimal before World War II. It increased dramatically during the post-war "catch-up" period, reaching a peak level of 350,000 tons per year (t/yr) in the first half of the 1970s. Since then, it fluctuated around 250,000 - 300,000 t/yr until 1990, at which time a rapid decrease began. The most recent figure is 43,318 tons in the year 2002. In 2003, the Japanese government began amending the related laws and regulations to prohibit, in principle, all asbestos use. The bulk of demand for asbestos came from the manufacture of asbestos cement sheet. Given the fact that use of asbestos continued over such a long period, concern regarding the risk of mesothelioma is well justified. The available statistics since 1995 show a growing number of mesothelioma deaths and this has raised considerable concern among the public. The trend has also prompted the government to revise the compensation criteria for mesothelioma as an occupational disease. Hence the prediction of the future trend of this disease has important implications from both the public health and occupational health standpoint. According to a prediction by age-cohort model, the total number of deaths in the 40 years between 2000 and 2039 should reach about 103,000, and the predicted number (43,900) in the ten years between 2030 and 2039 would be 21.4 times the observed number (2,051) in the ten years between 1990 and 1999. Another result based on a model using a dose-response relationship shows that deaths induced by environmental exposure may occupy about ten percent of the total number of deaths. Taking into consideration the consumption pattern of asbestos in recent decades, the incorporation of later cohorts will improve the estimation.