## THE EFFECTIVENESS OF ASBESTOS-RELATED INTERVENTIONS IN REDUCING RATES OF LUNG CANCER AND MESOTHELIOMA: A SYSTEMATIC REVIEW

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**Objectives** Literature documenting the effectiveness of occupational risk-reduction or preventive interventions tends to focus on measuring changes in exposure levels as opposed cancer rates. This systematic review compiles and summarises existing evidence of the impact of asbestos-related interventions on rates of lung cancer, mesothelioma and overall malignancy.

**Methods** A complete review of all literature used by the International Agency for Research on Cancer (IARC) in Monograph 100C and all articles indexed in PubMed since the monograph was completed. Studies were included if they described an asbestos-related intervention or provided risk estimates stratified by time of exposure. Results were analysed using narrative synthesis.

Results Of 1094 papers reviewed, nine studies from United States and Canada, United Kingdom, Italy, Germany, Norway and Israel met the inclusion criteria. Interventions included dust reduction efforts such as implementing enclosed or wet processes, discontinuing production, and adopting public policies banning use. Six of eight studies measuring lung cancer reported a decrease in risk after 10–50 years of follow-up and one study reported an overall decrease in malignancy. Only half of studies reporting on mesothelioma observed a decrease in risk over similar time periods.

**Conclusions** There is evidence in the literature that prevention efforts have been effective in decreasing incidence of lung cancer and to a lesser extent mesothelioma. Longer latency periods may partially explain the smaller effect on mesothelioma. These results are informative for projecting future cancer rates and document the benefits of interventions aimed at decreasing asbestos exposure.