



Paying the Price

Despite the progressive increase in asbestos consumption in Asia over recent decades, the number of individuals being diagnosed with mesothelioma, a signature cancer of asbestos exposure, remains low. Research presented by Dr. Claudio Bianchi at the Asian Asbestos Conference in 2006 elaborated on the discrepancies between the incidence of mesothelioma in European and Asian countries. He posited the following explanations:

- mesothelioma is a particularly difficult disease to diagnose and requires histological examination of neoplastic tissue and/or microscopic identification of the tumor for a reliable differential diagnosis; these techniques are not widely available in some Asian countries;
- low life expectancy or competitive causes of death combined with the long latency period of mesothelioma, from 14-75 years, pre-empt deaths from mesothelioma;
- the role of co-factors in mesothelioma causation;
- the relatively recent industrialization in Asia which means that a sufficient time lapse has not yet occurred for mesothelioma to develop;
- widespread underestimation of the true incidence of the disease.

Although huge amounts of asbestos were used in Japan between 1960-2000,⁸⁰ the number of pleural mesotheliomas was extremely low (about 150 per year) until the early 1990s.⁸¹ Comparing the number of cases of mesothelioma in two similar sized shipyard areas in Japan and Italy in the last 3 decades of the 20th century showed a huge differential with 48 cases in Yokosuka, Japan and 557 cases in Trieste-Monfalcone, Italy.

The absence of historical measurement data of hazardous asbestos exposures, a common problem in many countries, has been an obstacle to campaigners facing government demands for proof that asbestos can kill.⁸² According to Dr. Ken Takahashi, co-author of a paper published in *The Lancet* in March 2007, there is another way to predict the human cost of asbestos use: "The volume of asbestos consumed per head can act as a surrogate for the exposure levels of a population and ecological associations between exposure rates and disease rates can be measured." The authors of *Ecological Association between Asbestos-related Diseases and Historical Asbestos Consumption: an International Analysis*⁸³ found a "clear and plausible" correlation be-



tween the amounts of national asbestos consumption in 1960-69 and the incidence of asbestos mortality in 2000-2004; statistical calculations using data from 33 countries revealed that:

"Historical asbestos consumption was a highly significant positive predictor of all mesothelioma mortality ...

The association for asbestosis mortality rate was positive and statistically significant in men... The slope showed a 2.7-fold increase in deaths from asbestosis in men per 1 kg incremental rise in asbestos consumption in the population."

Speaking of a "global epidemic of asbestos-related diseases," the scientists "strongly support the recommendation that all countries should move towards eliminating (the) use of asbestos."