

ENVIRONMENTAL ASBESTOS EXPOSURE AND THE CURRENT SITUATION OF ASBESTOS GEOLOGIC OCCURRENCES, MINING, MANUFACTURING AND USE IN BRAZIL

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Brazil is one of the five biggest current producers and exporters of chrysotile asbestos in the world. It has been an importer of amphiboles and chrysotile since the beginning of the 20th century up to the 60s, when chrysotile from Canabrava mine, (Goiás), started its production and progressively reduced importation from abroad. Recently, four of the 27 Brazilian states have approved laws forbidden the manufacture, commerce and use of any kind of asbestos fiber, including chrysotile in their territories, contrasting with the 1995 federal law which banned amphibole fibers, but allowed mining, manufacturing, transport and commerce of chrysotile instead. Morbidity and mortality data due to asbestos exposure are scarce in the country, and limited to a small number of studies. In one of them, a group of 828 former asbestos-cement workers were studied and asbestosis and pleural thickening were assessed by HRCT. Asbestosis was present in 8.9% and pleural thickening in 29.7%. Another study of ex and current asbestos miners assessed two different scenarios: one related to the amphibole exposure of miners in Bahia during the 40s and 50s, which showed a high prevalence of asbestosis en pleural plaques (9.5% and 16.1%, respectively), and the other scenario a group of ex and current chrysotile miners from Canabrava, Goiás (3.5% and 5.7%, respectively). No mortality data from these two cohort populations has been published so far. Clinical cases of pleural malignant mesothelioma (MM) related to asbestos exposure have also been published, and the problem of pathology criteria for MM diagnosis has been considered an issue only recently, alerting for the necessity of a national expert panel to validate all mesothelioma diagnosis. Many cases of pleural plaques due to environmental and domiciliary exposure have been diagnosed in the last decades. A recent study showed that, despite mesothelioma mortality rates are still low (in the range of background rates), there has been an increase over the period of 1979-2000, from 0.56 to 1.01 deaths per million persons. The majority of cases (58%) were diagnosed in the Southeast region where important harbors and most of the asbestos manufacturing plants are located. Despite the fact that a city of 31,000 inhabitants is located by the side of the Canabrava mine, no independent environmental health assessment has yet been performed in that population.

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