

differences between these populations could not explain more than a tenfold difference in the dose-response slope, the QAMA-McGill dose estimates alone differ by more than a hundredfold for the same job, both within the same mine and between mines.(Gibbs 1972) Other members of the QAMA-McGill team noted, "If membrane filter and midget impinger counts were considered by work area, it was clear that the ratios of the two in some mines were of a different order [of magnitude] from those in others where the same process was employed...". [Emphasis added] (Gibbs and LaChance 1974) Conversion from particle to fiber counts compounded the dose estimate problem: "Though only 87 pairs of samples were collected in this pilot investigation, these were sufficient to demonstrate that no single conversion factor could be applied to all mines or to all work areas within a mine." [Emphasis added] (Gibbs and LaChance 1974) In low fiber specimens, which accounted for nearly one-third of the samples, the QAMA-McGill researchers found that particle counts were *inversely* correlated with fiber counts. That is, the higher the particle counts the *lower the fiber* exposure.(Gibbs and LaChance 1974) The QAMA-McGill researchers concluded, "Thus, the conversion of dust disease relationships for the Quebec mining and milling industry to fiber-disease relationships does not seem possible at the present time."(Gibbs and LaChance 1974) However, later ignoring their own data and recommendations, the QAMA-McGill researchers moved recklessly to convert from particle to fiber dose estimates. (McDonald et al. 1980b)

The researchers have conveniently institutionalized the idea of the textile mystery as a means of cloaking bad science. We believe incorrect dose estimates and a systematic bias against diagnosing asbestos-related disease in the Canadian asbestos mining region explain the textile mystery.

Misestimating the Dose: Particles are Not Fibers