

The asbestos industry, like other industries that manufacture hazardous products, is deliberately transferring its operations and its markets to developing nations to escape the strict legal controls that now exist in virtually all industrially developed nations, Canada among them. It is quite hypocritical of those industries to relocate to the least-developed nations and then to claim that workers there can work safely with toxic materials such as asbestos. Anyone who has travelled in the poor nations of South America, sub-Saharan Africa and Southeast Asia will have seen workers using asbestos in the most uncontrolled of conditions, for example, cutting asbestos-concrete pipe with circular saws or trowelling asbestos insulation on to walls in the complete absence of any form of respiratory protection. The argument that workers can be protected against asbestos in nations that have no legal infrastructure in occupational health is a cruel joke.

The claim that chrysotile asbestos from Canada is "safe" is simply not true. Epidemiologic as well as toxicologic studies have shown abundantly that all forms of asbestos including Canadian chrysotile can cause the full range of asbestos-related diseases including mesothelioma, lung cancer, asbestosis

and other malignancies.² An analysis from Quebec published 3 years ago showed a 7-fold excess mortality rate for pleural cancer (presumably mesothelioma) among women in the chrysotile-mining townships; no such excess was seen elsewhere in the province.³ The International Agency for Research on Cancer,⁴ the US Environmental Protection Agency⁵ and the World Health Organization⁶ have all accepted that chrysotile is a potent carcinogen.

The claim by Dildar Ahmad and William Morgan that the Collegium Ramazzini accepted funding from a consortium of trial lawyers to sponsor a conference a decade ago is old news. The Collegium receives no such funding at present.

Laurie Kazan-Allen is absolutely correct in noting that this issue has been studied to death. A call for further review might on its face seem reasonable, but in fact it is simply a summons for yet another journey down a well-trodden and diversionary pathway.

I thank David Muir, David Bates and Tee Guidotti for their thoughtful comments in support of this ban.

Those who support the continuing export of asbestos to the developing nations of the world are in the same unhappy position as those who would ad-

vocate the export of cigarettes to those nations — they are defending the indefensible.

Philip Landrigan

President
Collegium Ramazzini
New York, NY

References

1. LaDou J, Landrigan P, Bailar JC III, Foa V, Frank A, on behalf of the Collegium Ramazzini. A call for an international ban on asbestos [editorial]. *CMAJ* 2001;164(4):489-90.
2. Nicholson WJ. The carcinogenicity of chrysotile asbestos: a review. *Ind Health* 2001;39:57-64.
3. Camus M, Siemiatycki J, Meek B. Nonoccupational exposure to chrysotile asbestos and the risk of lung cancer. *N Engl J Med* 1998;338:1565-71.
4. International Agency for Research on Cancer. *IARC monographs on the evaluation of carcinogenic risks to humans*. Suppl 7. Lyon (France): The Agency; 1987. p. 106-16.
5. Environmental Protection Agency. *Airborne asbestos health assessment update*. Washington: The Agency; 1986. Report no.: EPA/6000/8-84/003eE.
6. *Chrysotile asbestos*. no 203 of *Environmental health criteria* series. Geneva: World Health Organization; 1998.

[Jack Siemiatycki responds:]

Notwithstanding the strong disagreements among these letter writers, most of them make valid points concerning the call for a worldwide ban on asbestos.¹⁻³ I would like to comment on 2 of the letters.

Laurie Kazan-Allen implies that one cannot legitimately question the ban-asbestos lobby without being a lackey of the chrysotile industry. She claims that the final word on chrysotile risks was produced by "a panel of 17 experts from 10 countries, which drew on the resources of 140 collaborating centres, institutions and individuals ..." Having been one of the individuals involved in that process, I can affirm that the image she conjures of an army of scientists coming together in a harmonious and coordinated fashion to answer the questions is misleading. The document was written and approved by a small group of people, not by an army of scientists. Further, given the report's equivocal recommendations, its calls for additional research and its many acknowledgements of data limitations, it is clear that this panel did not consider that it was handing down the final truth on chrysotile.

Pour écrire à la rédaction

On peut envoyer une lettre à la rédaction par notre site web, par la poste, par messenger, par courriel (pubs@cma.ca) ou par télécopieur. Les lettres doivent compter au plus 250 mots et être signées par tous les auteurs. Un exemplaire dûment signé des lettres envoyées par courriel doit être expédié subséquemment au JAMC par télécopieur ou par la poste. Les lettres se rapportant à un article publié dans le JAMC doivent nous parvenir dans les 2 mois de la publication de l'article en question. Le JAMC ne correspond qu'avec les auteurs des lettres acceptées pour publication. Les lettres acceptées seront révisées et pourront être raccourcies.

Cyberlettres

Nous encourageons les lecteurs à écrire à la rédaction par le service Cyberlettres de notre site web (www.cma.cmaj-f). Nous visons à publier au plus tard le jour ouvrable suivant les lettres qui apportent une contribution importante à la discussion. Les lettres électroniques seront annexées à l'article pertinent du JAMCél et on pourra les publier dans la version imprimée du JAMC. À partir du numéro du 22 août 2000, on pourra envoyer une cyberlettre en cliquant sur l'icône à la fin des articles du JAMCél.

Most importantly, Kazan-Allen also misrepresents the substance of the panel's valid and valuable report. As shown by the important extracts that Kazan-Allen quoted, the panel did not recommend a worldwide ban on asbestos. Indeed, the panel recommended research concerning the economic and practical feasibility of substitution for chrysotile asbestos as well as further research on the risks of cancer following exposure to relatively low levels of chrysotile.

Finally, whether chrysotile is suitable for "Korean, Indian and Japanese lungs" is surely not for Canadians to decide; but neither is it for the English or Americans to decide. Although scientific postulates have a universal character, public health policy must be rooted in social realities specific to each country. Even if they share a common understanding of the risks associated with a given factor, it is entirely legitimate for different countries to devise different policies in light of their different local circumstances.

Regarding David Muir's letter, surely the principle he espouses would apply not only to asbestos and pesticides but to all export products whose use might involve differing standards of health and safety for workers or consumers. Canada would have to set up monitoring systems in each country to which each such product was exported. For example, before exporting cars to a foreign country, we would need to monitor that country's tobacco and alcohol regulations and practices as well as all aspects of its national road safety policies (such as seat belt laws, speed limits, highway design and policing of driving safety). National and local policies and practices regarding fossil fuel combustion and its control would have to be monitored before oil was exported anywhere. There are many more examples of products (pharmaceuticals, nickel, plastics, various foods) that might not be used as safely abroad as we would hope. The sheer magnitude of the effort required to establish and maintain bilateral multi-product monitoring programs with each country to which Canada exports goods ren-

ders the proposal a non-starter, not to mention the potential for diplomatic conflict.

Jack Siemiatycki

Professor
Institut Armand-Frappier
Université du Québec
Laval, Que.

References

1. LaDou J, Landrigan P, Bailar JC III, Foa V, Frank A, on behalf of the Collegium Ramazzini. A call for an international ban on asbestos [editorial]. *CMAJ* 2001;164(4):489-90.
2. Camus M. A ban on asbestos must be based on a comparative risk assessment [editorial]. *CMAJ* 2001;164(4):491-4.
3. Siemiatycki J. Should Canadian health care professionals support the call for a worldwide ban on asbestos? [editorial]. *CMAJ* 2001;164(4):495-7.

[Michel Camus responds:]

I proposed that the toxicity of chrysotile asbestos is much lower than that of other types of asbestos and that it may be close to that of substitutes.¹ Additionally, before a decision is made on whether or not to ban asbestos the technical efficiency of substitutes compared with chrysotile must be weighed for products that have intrinsic safety characteristics. Overall, like Richard Wilson and colleagues, I favour a comparative risk assessment approach. Although substitutes may prove to be better products with respect to human health, this has not yet been shown. Substitutes are associated with some risks, however small, and must therefore be considered critically. In fact, even a substitute 10 times less toxic than chrysotile should be regulated and controlled as tightly as chrysotile if we want to reduce risks. If we tolerate higher exposures to a substitute than to chrysotile, we could well offset the benefits of the lower toxicity of that substitute. Any ban or substitution policy should stipulate standards for substitutes likely to reduce risks.

The letters to *CMAJ* on banning chrysotile exhibit various viewpoints. I cannot address all of the important issues here, but I caution against putting moral judgements before fact-finding. No doubt all of the letter writers would agree that chrysotile is a carcinogen,

but some of them seem to dismiss exposure-response relationships and the lower, possibly "acceptable" risks associated with lower exposures today. Any chrysotile-related risk may seem immoral to them, yet they are not critical about risks associated with chrysotile substitutes. How is it more moral to apply the precautionary principle only to chrysotile rather than to both chrysotile and its substitutes? Oversimplification and avoidance of evidence make it easier to make decisions but they result in hazardous policies.

David Muir and Laurie Kazan-Allen raise the issue of exporting hazardous materials and products. It seems desirable to caution the countries to which we export such materials and products against incorrect uses and careless exposures. Such cautions would apply to both asbestos and substitute products. However, it is not obvious how to do this without being paternalistic. This problem may be addressed by better labelling, cooperative education, training programs and improvements in the "traceability" of products. International laws might be enacted to hold producers and exporters responsible for the detrimental health effects of their products. I am not sure. Generally, more care should be taken to protect the most vulnerable sectors of any society against overexposure to toxic substances such as chrysotile and its substitutes.

Michel Camus

Science Affairs and Statistics Division
Health Canada
Montreal, Que.

Reference

1. Camus M. A ban on asbestos must be based on a comparative risk assessment [editorial]. *CMAJ* 2001;164(4):491-4.

Methylmercury poisoning

Erica Weir's otherwise excellent public health article on the risks of methylmercury was flawed by misinformation on the clinical management of patients with methylmercury poisoning.¹ The information provided appears