

Contextualising the policy decision to ban asbestos



See [Articles](#) page e341

As of July, 2019, more than 100 countries have not totally banned the mining, importing, exporting, trading, and use of asbestos.¹ In these countries—including current major producers or users of asbestos such as Russia, Kazakhstan, China, India, and Indonesia—*asbestos-related diseases will persist for decades longer than in other countries that have implemented an asbestos ban. Indeed, countries that banned asbestos a quarter of a century ago are still contributing substantially to the worldwide toll of more than 100 000 asbestos-related deaths per year. No ban has ever been promulgated in the USA,² where the current Occupational Safety and Health Administration (OSHA) standard in the workplace—ie, a concentration of 0.1 fibre per mL air—approximates the lowest detectable level with current measuring methods.*

In *The Lancet Planetary Health*, Ro-Ting Lin and colleagues report findings of a global comparison showing that, for any country, the odds of adopting a ban on asbestos are associated with both the level of government efficiency and ratification of two international Conventions regarding asbestos control in the workplace and in international trade—the UN's Basel Convention and the International Labor Organization's C162 Asbestos Convention.³ In a previous study, Bahk and colleagues suggested that the process of banning asbestos was conditioned by cognition of the burden of asbestos-caused diseases and experience in tackling social problems through adequate facilities.⁴

To understand how stakeholders have shaped their attitude to asbestos during the years-long process leading to bans on asbestos, we should remember that the abandonment of asbestos has been preceded by many notable events. First was the beginning of the environmentalist movement after publication, in 1962, of Rachel Carson's book *Silent Spring*. Second was the assessment, in 1977, by the International Agency for Research on Cancer (IARC) that all forms of asbestos are carcinogenic to man.⁵ Third was growing awareness around 1980 by industry, trade unions, and governments that safer substitutes for asbestos exist. Fourth, using data from cancer registries and mortality statistics, researchers began to produce estimates of the number of cancer cases attributable to asbestos.⁶ Fifth was increased awareness (expanding from the

scientific milieu to people with asbestos-related illnesses and the general public) that mesotheliomas might be caused by relatively low exposure to asbestos outside the workplace (deplorably, cancer deaths from exposure in the general environment cause more emotion than occupational cancers). Sixth was creation in the 1980s and 1990s of ad-hoc advocacy groups (eg, BastAmianto in Italy) indicating that asbestos bans would be the only solution to health problems. Such groups included scientists and public health workers, medical associations, and other professional bodies. Finally, beginning in the 1970s, in the USA in particular, workers started suing manufacturers and suppliers of asbestos fibres they had handled. This action meant giant companies faced liabilities exceeding their worth and insurance combined.⁷ As a result, from the 1980s in Europe and the USA, the market for asbestos-containing materials (ACMs) stopped being financially convenient. Unravelling how these many and varied factors—and others not noted here—have combined in different countries and periods is a challenge for health historians and economists.

Banning asbestos is important, but it simply means stopping extraction, processing, importing, and trading asbestos or ACMs. In itself, a ban does not create an asbestos-free country. Rendering the ACMs present at the time of the ban harmless, more than 30 million tons in the case of Italy,⁸ is a major challenge for politicians, environmental and public health services, and consultant scientists. It requires planning, prioritising, monitoring, and allocation of funds and should be characterised by transparency in releasing information to the public. Indeed, in many countries, decades after the ban, a number of questions remain open. For example, how many ACMs remain to be remediated? Have all schools and other public buildings been made asbestos-free? Where are ACMs finally disposed? And, has asbestos been eliminated from pipes and ovens in industry.

Furthermore, banning asbestos does not imply any less attention for medical treatment, in view of the very long latency of asbestos-induced illness. On the contrary, efforts should be implemented to identify and compensate all patients with asbestos-related cancer, ensuring that they are attended in the most

appropriate hospital units. Availability of adequate health surveillance for workers previously exposed to asbestos is also important.

Public health authorities might also face difficulties in distinguishing between reliable versus unreliable scientific results. Indeed, many reports defending asbestos, which are intended to influence policy decisions on asbestos hazards, have been published.^{9,10} A few of these product defence reports have been followed by complaints to the publishing journal, with few followed by late declarations of competing interests or an erratum. In a quarter of reports reviewed in a survey of scientific reports on either extent or outcomes of exposure to asbestos, a statement regarding competing interests was missing.¹¹ Authors declared no competing interests in 92 of 134 reports providing evidence of risk (positive reports) and in one of 11 that did not (negative reports). Such a mismatch between positive and negative studies has also occurred among epidemiological investigations of passive smoking, of side-effects of new drugs, and of other aspects of environmental cancer.¹² The scientific community and journals ought to become more thorough in detecting misquotations and implementing a coherent and strict policy on declarations of competing interests as well as sanctioning the absence of such a declaration.

In any country, the social, cultural, and political factors shaping the debate and contributing to decisions on banning asbestos are complex and nuanced. At the scientific level, specious pro-asbestos arguments

disguised as science or scientific doubt should be identified and rejected.

Benedetto Terracini

Cancer Epidemiology, Centro di Riferimento per l'Epidemiologia e la Prevenzione Oncologica (CPO) Piemonte, and Department of Medical Sciences, University of Turin, 10124 Turin, Italy
 benedetto.terracini@fastwebnet.it

BT has served as an expert witness for the Public Prosecution Office and for the Court in asbestos trials.

Copyright © 2019 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

- 1 International Ban Asbestos Secretariat. Current asbestos bans. July 15, 2019. http://ibasecretariat.org/alpha_ban_list.php (accessed Aug 9, 2019).
- 2 Lemen RA, Landrigan P. Toward an asbestos ban in the United States. *Int J Environ Res Public Health* 2017; **14**: 1302.
- 3 Lin R-T, Chien L-C, Jimba M, Furuya S, Takahashi K. Implementation of national policies for a total asbestos ban: a global comparison. *Lancet Planet Health* 2019; **3**: 341-48.
- 4 Bahk J, Choi Y, Lim S, Paek D. Why some, but not all, countries have banned asbestos. *Int J Occup Environ Health* 2013; **19**: 127-35.
- 5 WHO, IARC. IARC Monographs on the evaluation of carcinogenic risk to humans: vol 14—asbestos. Lyon: International Agency for Research on Cancer, 1977.
- 6 Doll R, Peto R. The causes of cancer: quantitative estimates of avoidable risks of cancer in the United States today. *J Natl Cancer Inst* 1981; **66**: 1191-308.
- 7 Castleman BI. Asbestos: medical and legal aspects, 5th edn. New York: Wolters Kluwer, Law and Business, 2011.
- 8 Ministero della Salute. Quaderno del Ministero della Salute no 15: stato dell'arte e prospettive in materia di contrasto alle patologie asbesto-correlate—maggio-giugno 2012. Rome: Ministero della Salute, 2012.
- 9 Terracini B, Mirabelli D. Asbestos and product defence science. *Int J Epidemiol* 2016; **45**: 614-18.
- 10 Michaels D. Doubt is their product. How industry's assault on science threatens your health. Oxford: Oxford University Press, 2008.
- 11 Valenzuela M, Giraldo M, Gallo-Murcia S, Pineda J, Santos L, Ramos-Bonilla JP. Recent scientific evidence regarding asbestos use and health consequences of asbestos exposure. *Curr Environ Health Rep* 2016; **3**: 335-47.
- 12 Barnes DE, Bero LA. Why review articles on the health effects of passive smoking reach different conclusions. *JAMA* 1998; **279**: 1566-70.