Asbestos: The cause of *100,000 Deaths...* yearly ?

MYTH OR REALITY?

Sensationalism
Past sprayed-on application
Amphiboles
Replacement fibres and products not fully investigated

VS

Scientific data
Modern safe-use techniques
Chrysotile
A known and controlled product

2009

ICA
International Chrysotile Association

For environmental, occupational health, safe and responsible use

TABLE OF CONTENTS

ON THE USE AND MISUSE OF STATISTICS

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Over the last decades, the world has been bombarded with statistics. A "tsunami of statistics", that has been compiled on all sorts of subjects. Some have called this assault "the tyranny of numbers".

There are inescapably all kinds of statistics: a simple count of population in a country, or a city; the number of vehicles passing over a bridge in one year, etc. Other statistics are about trends over months or years of some evolving process. We just take notice.

Other kinds (currently published) of statistics are truly disquieting, and beg for action by responsible authorities. For instance, In November 2006, the US National Academies stated that inadequate drinking water is a leading cause of death in children.

"Inadequate drinking water is the second-leading cause of death among children worldwide, according to a new report from the United Nations Development Program. Almost 2 million children die from unsanitary water every year. Globally, about 1.1 billion people do not have access to clean water, and 2.6 billion lack adequate sanitation, according to the report. Although many countries are improving access to water, drainage systems and the number of households with toilets (these) are not keeping pace (with demand), leading to the spread of disease."
(http://nationalacademies.org/headlines/20061127.html)

> **"Facts are stubborn, but statistics are more pliable."**
>
> Mark Twain, American author

The Economic and Social Council (ECOSOC) of the United Nations meets each year alternatively in New York and Geneva. The ECOSOC receives the reports of activities of the UNICEF, the FAO, the WHO, the ILO among others. According to the statistics published for 2007, 36 million persons died of hunger or following its immediate consequences. Additionally seven million other persons died following lack of safe potable water and from exposure to polluted water. The United Nations Development Programme (UNDP) states that: *"More than a billion people lack access to clean drinking water and over 2.4 billion lack access to proper sanitary facilities. The result is that there are more people in the world's hospitals today suffering from water-borne diseases than any other ailment. Some two million children die every year - 6,000 a day - from such infections."* (Mark Malloch Brown, Administrator of UNDP)

One cannot escape the disturbing reality of these numbers.

Finally, there are also other statistics that need to be carefully evaluated. For instance, in order to support one's particular views, one can quote **only parts** of the available numbers. An example was recently used by some ideologues who carefully **selected parts** of a document prepared for the World Health Organization (WHO Assembly Resolution 58.22 on cancer prevention and control, 2005), citing a WHO publication (Concha-Barrientos et al., 2004), stating that:

"Currently, about 125 million people in the world are exposed to asbestos at the workplace. According to global estimates at least 90,000 people die each year from asbestos-related lung cancer".

Unfortunately, few people would bother to scrutinize the validity and completeness of such numbers. But a careful examination of the Concha-Barrientos report shows that the above statements and statistics are grossly misleading, in that they represent only the **selected parts** of the report, which suited the intention of some ideologues. Here are the facts and the **complete** conclusions of the Concha-Barrientos report.

"Some people use statistics like a drunk uses lamp posts: more for support than illumination."

Andre Lang, Scottish poet

First, the Concha-Barrientos et al. report acknowledges that there is a difference in risk between chrysotile and the amphibole varieties of asbestos. In chapter 21, p.1687, the authors state:

"Currently, about 125 million people in the world are exposed to asbestos at the workplace. According to global estimates at least 90,000 people die each year from asbestos-related lung cancer."
But the authors also add: *"In 20 studies of over 100,000 asbestos workers, the standardized mortality rate ranged from 1.04 for chrysotile workers to 4.97 for amosite workers, with a combined relative risk of 2.00. It is difficult to determine the exposures involved because few of the studies reported measurements, and because it is a problem to convert historical asbestos measurements in millions of dust particles per cubic foot to gravimetric units.* ***Nevertheless, little excess lung cancer is expected from low exposure levels.***"

The Concha-Barrientos report echoes the benchmark publication by Hodgson and Darnton (2000), in which the specific risk of cancer death is addressed. These authors calculated the risks for mesothelioma on the assumption that exposure commenced some time between the ages of 20 and 45 years and ceased at age 65 years. Assuming **a mixed fibre type**, the lifetime risk of cancer death is approximately 100/100,000 fibre.year per ml. This combined estimate is based on best estimates of risk for different cumulative exposures categories. For cumulative exposures of between 10 and 100 f/ml.years, the risks are: **400 deaths per 100,000 exposed for each f/ml.year of cumulative exposure for crocidolite, 65/100,000 for amosite and 2/100,000 for chrysotile**.

For cumulative exposures of 0.1 f/ml.years, the risks are respectively 100 deaths per 100,000 exposed for crocidolite; 15 deaths per 100,000 exposed for amosite and "probably insignificant" for chrysotile. (Hodgson and Darnton, 2000, Table 11).

PETO'S PREDICTIONS: USING MISLEADING DATA AND ITS EFFECTS ON PERCEPTIONS

Statistics are often used to predict quantitatively the eventuality of some events or outcomes on the basis of extrapolations from past data. Here, both the quality and the pertinence of such historical data are of key importance. **An example of questionable reliance on improper historical data** was the predictions of "asbestos"-related mortality by UK epidemiologist Julian Peto in 1995. He calculated the number of future "asbestos"-related deaths to be expected based on the exposure to "asbestos". The use of "asbestos" included all asbestos fibre types: chrysotile as well as those of the amphibole variety, namely: crocidolite and amosite. The number of predicted "asbestos"-related deaths (several thousands per annum) over several decades understandably caused alarm all over the world, and were used abundantly by some ideologues who determined that the only reasonable conclusion was that all asbestos fibre types should be banned worldwide.

This example illustrates the importance of the pertinence of precise historical data in making predictions that inevitably fashion the perceptions of risk in the general population.

To quote Professor Richard Wilson of Harvard University:

"Perceptions are often characterized as a hysterical but misguided response to the experience of asbestos workers exposed to extremely high levels during the 1930s through the 1960s".

In his comments on the "Proposed Asbestos Ban" (Senate Employment and Workplace Safety Subcommittee, Under the Senate Health, Education, Labor, and Pensions Committee, March 1, 2007), Wilson added: *"Now that the commercial amphibole asbestos have been removed from commerce by economic forces and the asbestos consumption in the US has been reduced by 99.75% to chrysotile asbestos only, and the exposure levels in the workplace reduced by many hundred fold, there is no justification for banning the controlled use of chrysotile asbestos. The use of asbestos in gaskets, O rings and the like pose negligible risk to anyone and to curtail them without reason is counterproductive to the economy and well being of the US as a whole".*

Putting Peto's predictions in perspective, two UK Health & Safety Executive epidemiologists published in 2000 a report on asbestos-exposed cohorts, which gave information on exposure levels, from which (as a minimum) a cohort average cumulative exposure could be estimated. At exposure levels seen in occupational cohorts, it was concluded that the **exposure-specific** risk of mesothelioma from the three principal commercial asbestos types is broadly in the ratio 1:100:500 for chrysotile, amosite and crocidolite respectively. For lung cancer, the risk differential between chrysotile and the two-amphibole fibres were between 1:10 and 1:50. (Hodgson JT & Darnton A). No serious and credible scientist today would challenge the fact that chrysotile and the amphiboles are totally different in their potential health effects.

CHRYSOTILE CAN BE USED SAFELY

There are many examples of published studies carried out in various settings over several years showing no measurable health risks when chrysotile only is used in compliance of current exposure levels (≤ 1 f/cc). **Note how consistent the results and conclusions are.** Here are a few. Summaries of some referenced studies are to be found starting page 11 and up.

Weill, H., Hughes, J. and Waggenspack, C. (1979). ***Influence of dose and fibre type on respiratory malignancy risk in asbestos cement manufacturing***. American Review of Respiratory Disease 120(2): 345-354.

Thomas, H.F., Benjamin, I.T., Elwood, P.C. and Sweetnam, P.M. (1982). ***Further follow-up study of workers from an asbestos cement factory***. British Journal of Industrial Medicine 39(3): 273-276.

Berry, G. and Newhouse, M.L. (1983). ***Mortality of workers manufacturing friction materials using asbestos***. British Journal of Industrial Medicine 40(1): 1-7.

Gardner, M.J., Winter, P.D., Pannett, B. and Powell, C.A. (1986). ***Follow up study of workers manufacturing chrysotile asbestos cement products***. British Journal of Industrial Medicine 43: 726-732.

Newhouse, M.L. and Sullivan, K.R. (1989). ***A mortality study of workers manufacturing friction materials: 1941-86***. British Journal of Industrial Medicine 46(3): 176-179.

Liddell F.D.K., McDonald J.C. and McDonald A. (1997). ***The 1891-1920 birth cohort of Quebec chrysotile miners and millers: Development from 1904 and mortality to 1992***. Ann. Occup. Hyg. 41:13-35

Paustenbach D.J., Finley B.L., Lu E.T., Brorby G.P., and Sheehan P.J. (2004). ***Environmental and occupational health hazards associated with the presence of asbestos in brake linings and pads (1900 to present): A "state-of-the-art review"***. J Toxicol Environ Health, Part B 7: 33-110

Yarborough C.M. (2006). ***Chrysotile as a Cause of Mesothelioma: An Assessment Based on Epidemiology***. Critical Reviews in Toxicology 36 : 165-187

Mangold, C., Clark K., Madl A., and Paustenbach D. (2006). ***An exposure study of bystanders and workers during the installation and removal of asbestos gaskets and packings***. J Occup Environ Health 3 : 87-98

L. Sichletidis D., Chloros D., Spyratos A.-B., Haidich I., Fourkiotou M., Kakoura, D., Patakas (2008). ***Mortality from Occupational Exposure to Relatively Pure Chrysotile: A 39-Year Study***. Respiration, Published Online: October 9, 2008. http://content.karger.com/ProdukteDB/produkte.asp?Aktion=AcceptedPapers&ProduktNr=224278

Few other natural resources have been the subject of more research than chrysotile asbestos. Nevertheless, in spite of all the scientific data accumulated on the health effects of chrysotile and other fibres and, in spite of measures taken by the industry, the workers and their labor organization, a climate of uncertainty persists among the public. Today, chrysotile is not the devastating threat to the population, to the world and to the workers, as it is widely alleged by some activists who too often manipulate statistics. The chrysotile world, through the years, has answered and argued with logic and common sense. Rational response and explanations have been given, and the potential risk that this natural fibre may present has been addressed.

Thus, over three decades there has been consistent published evidences that chrysotile can be used with no measurable risk to health. Many examples of its being used successfully have been noted. In fact, using chrysotile within the parameters of the regulated exposure limit and respecting the good work practices in place will insure that it is being used safely.

The good news is that the practical implementation of the safe and controlled use of chrysotile remains simple.

"Statistics are no substitutes for judgment."

Henry Clay, American Statesman

[i] **Concha-Barrientos M., et al. (2004)** "Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors" in: Ezzati M, Lopez AD, Rodgers A, Murray CJL, eds. Geneva: World Health Organization, chapter 21, pp.1651–1801

[ii] **Hodgson J.T. and Darnton A. (2000)**. The Quantitative Risks of Mesothelioma and Lung Cancer in Relation to Asbestos. Ann. Occup. Hyg. 44(8) : 565-601

[iii] Ibidem

[iv] Ibidem

THE DIFFERENCE BETWEEN MYTH AND REALITY

- Between partial and extrapolated statistics and the modern reality of the chrysotile industry, there exists a whole world of misperception and exaggerated fears fed by activists for a total ban of all asbestos fibres without distinction and always without taking into account the scientific studies of the last decade.

SENSATIONALISM VERSUS SCIENTIFIC INFORMATION

- Certain statistics illustrate reality:
  - 1.1 billion people do not have access to drinking water, causing the death of some 2 million children a year;
  - 2.6 billion people cannot count on basic sanitary installations such as toilets, sewers, drains, etc.;
  - In 2007, 36 million people died of hunger and the result of malnutrition added to the 7 million people who died because they lacked clean drinking water.
- However, statistics can be used as propaganda when:
  - They are used to give a scientific aspect to an ideological vision
  - They are given in reference in a partial and dramatic way
  - They are somewhat truncated and extrapolated with the intention to provoke fear rather than to inform

THE MISLEADING USE OF THE CONCHA-BARRIENTOS REPORT (2004)

- An incomplete quote:
  - "125 million are exposed to asbestos at the workplace. According to estimates, at least 90,000 people die each year from asbestos-related cancer".
- What the propaganda forgot:
  - "In 20 studies of over 100,000 asbestos workers, the mortality rate (SMR) ranged from 1.04 for chrysotile workers to 4.97 in the case of amosite".

Some supporters of the complete ban of all types of asbestos, including chrysotile, deliberately neglect to entirely quote the conclusion of the Concha-Barrientos report: ***"Nevertheless, little excess lung cancer is expected from low exposure levels".***

ALARMING PREDICTIONS BASED ON MISLEADING FOUNDATION

- Often, alarming predictions are based on approximation:
  - that combine fibres and include some that have a higher level of risk than chrysotile and have been prohibited from commercialization for at least two decades (crocidolite and amosite)
  - from higher levels of exposure than the standard of 1 fibre/cc which prevails for chrysotile today.

"100,000 DEATHS"...
TWO WORDS TO DESTROY THE CHRYSOTILE INDUSTRY

Perception	Reality
Asbestos kills 100,000 people a year	Propaganda ignores three key factors 1- Type of asbestos 2- Level of exposure 3- Modern safe practices There are several types of asbestos fibres and they do not have the same risk level as only chrysotile is being used.
	Controlled exposure in the workplace: less than one fibre/cc
	90% of chrysotile being used consists of cement where fibre is encapsulated. Safe packaging techniques and practices are used to comply with standards of dustiness.

- For propaganda to be effective it should:
  - Look like it's based on scientific information, thus difficult to refute;
  - Be eye catching;
  - Summarize into a simple formula that may seem true when repeated often enough...

A FEW PREDICTIONS FROM JULIAN PETO

- Julian Peto is an epidemiologist from the UK who in 1995 made a statistical estimation on the number of asbestos-related deaths, based on data that carried a lot of confusion but alarmed the whole world.
- It includes all fibres within the same assessment without taking into account the risk level of chrysotile, established as being undetectable below 1 f/cc.

IN RESPONSE TO PREDICTIONS

- In 2000, Hodgson and Darnton, two prominent UK epidemiologists, established, from studying exposed workers the risks of three different types of asbestos.

- The relative risk for **mesothelioma** was estimated at:
  - 1 for chrysotile
  - 100 for amosite
  - 500 for crocidolite

- The relative risk for **lung cancer** was estimated at:
  - 1 for chrysotile
  - 10 for amosite
  - 50 for crocidolite

Hodgson J.T. and Darnton A. (2000). *The Quantitative Risks of Mesothelioma and Lung Cancer in Relation to Asbestos*, Ann. Occup. Hyg. 44(8) : 565-601

→ **DIFFERENT STUDIES PUBLISHED OVER A PERIOD OF ABOUT THIRTY YEARS INDICATING THE ABSENCE OF MEASURABLE RISK WHEN ONLY CHRYSOTILE IS BEING USED WHILE COMPLYING WITH THE STANDARD (≤ 1 FIBRE/CC).**

NOTE THE CONVERGENCE OF CONCLUSIONS AMONG AUTHORS.

- **Weill, H., Hughes, J. and Waggenspack, C. (1979). *Influence of dose and fibre type on respiratory malignancy risk in asbestos cement manufacturing*. American Review of Respiratory Disease 120(2):345-354.**

An investigation on 5,645 asbestos-cement manufacturing workers, showing no raised mortality resulting from exposure for 20 years to chrysotile asbestos at exposure levels equal to or less than 100 MPPC.years (corresponding to approximately 15 fibres/ml.years). The authors state: *"...However, the demonstration that low cumulative and short-term exposures did not produce a detectable excess risk for respiratory malignancy may be of assistance in the development of regulatory policy, because a scientifically defensible position based on these data is that there are low degrees of exposure not associated with a demonstrable excess risk"*.

- **Thomas, H.F., Benjamin, I.T., Elwood, P.C. and Sweetnam, P.M. (1982). *Further follow-up study of workers from an asbestos cement factory*. British Journal of Industrial Medicine 39(3):273-276.**

In an asbestos-cement factory using chrysotile only, 1,970 workers were traced, and their mortality experience was examined. There was no appreciably raised standardised mortality ratio (SMR) for the causes of death investigated, including all causes, all neoplasms, cancer of the lung and pleura, and cancers of the gastrointestinal tract. The authors indicate: *"Thus the general results of this mortality survey suggest that the population of the chrysotile asbestos-cement factory studied are not at any excess risk in terms of total mortality, all cancer mortality, cancers of the lung and bronchus, or gastrointestinal cancers"*.

- **Berry, G. and Newhouse, M.L. *Mortality of workers manufacturing friction materials using asbestos*. British Journal of Industrial Medicine 40(1):1-7.**

A mortality (1942-1980) study carried out in a factory producing friction materials, using almost exclusively chrysotile. Compared with national death rates, there were no detectable excess of deaths due to lung cancer, gastrointestinal cancer, or other cancers. The exposure levels were low, with only 5% of men accumulating 100 fibre-years/ml. The authors state: "The experience at this factory over a 40-year period showed that chrysotile asbestos was processed with no detectable excess mortality".

- **Gardner, M.J., Winter, P.D., Pannett, B. and Powell, C.A. (1986). *Follow up study of workers manufacturing chrysotile asbestos cement products*. British Journal of Industrial Medicine 43:726-732.**

A cohort study carried out on 2,167 subjects employed between 1941 and 1983. No excess of lung cancers or other asbestos-related excess death is reported, at mean fibre concentrations below 1 f/ml, although higher levels had probably occurred in certain areas of the asbestos-cement factory.

- **Newhouse, M.L. and Sullivan, K.R. (1989). *A mortality study of workers manufacturing friction materials: 1941-86*. British Journal of Industrial Medicine 46(3):176-179.**

The study referred in the above mentioned reference (Berry and Newhouse, 1983) has been extended by seven years. The authors confirm that there was no excess of deaths from lung cancer or other asbestos related tumours, or from chronic respiratory disease. After 1950, hygienic control was progressively improved at this factory, and from 1970, levels of asbestos have not exceeded 0.5-1.0 f/ml. The authors conclude: *"It is concluded that with good environmental control, chrysotile asbestos may be used in manufacture without causing excess mortality"*.

- **Liddell F.D.K., McDonald J.C. and McDonald A. (1997). *The 1891-1920 birth cohort of Quebec chrysotile miners and millers: Development from 1904 and mortality to 1992*. Ann. Occup. Hyg. 41:13-35**

The epidemiological studies on possibly the largest cohort of chrysotile workers ever undertaken have shown no evidence of increased cancer risk from chrysotile exposure at presently regulated occupational exposure levels (~1 f/ml, 8-hour time-weighted average), as recommended by the Group of Experts convened by the WHO in Oxford (1989).

- **Paustenbach D.J., Finley B.L., Lu E.T., Brorby G.P., and Sheehan P.J. (2004). *Environmental and occupational health hazards associated with the presence of asbestos in brake linings and pads (1900 to present) : A "state-of-the-art review".* J Toxicol Environ Health, Part B 7 : 33-110**

This "state-of-the-art" review of the risk associated with the use of asbestos in the manufacture of friction materials and their use in the general automotive service industries. This review, covering studies and observations published over several decades, demonstrates that in general, exposures have been minimal and did not show any demonstrable risk when chrysotile was used, and that the relatively few instances of increased health risks were always associated with the use of amphiboles.

- **Yarborough C.M. (2006). *Chrysotile as a Cause of Mesothelioma : An Assessment Based on Epidemiology.* Critical Reviews in Toxicology 36 : 165-187.**

This is an extensive review of the epidemiological cohort studies undertaken to evaluate the extent of the evidence related to free chrysotile fibers, with particular attention to confounding by other fiber types, job exposure concentrations, and consistency of findings. This review of 71 asbestos cohorts exposed to free asbestos fibers does not support the hypothesis that chrysotile, uncontaminated by amphibolic substances, causes mesothelioma.

- **Mangold, C., Clark K., Madl A., and Paustenbach D. (2006). *An exposure study of bystanders and workers during the installation and removal of asbestos gaskets and packings.* J Occup Environ Health 3 :87-98**

In response to concerns raised in a report to the US Navy in 1977 on exposure to asbestos associated to gasket work, a series of studies was performed from 1982 to 1991 to evaluate the airborne concentrations of chrysotile asbestos associated with replacing gaskets and packing materials. The results indicated that the 8-hour time-weighted (TWA) average concentrations were between 0.01 to 0.03 fiber/cc.

- **L. Sichletidis D., Chloros D., Spyratos A.-B., Haidich I., Fourkiotou M., Kakoura, D., Patakas (2008). *Mortality from Occupational Exposure to Relatively Pure Chrysotile: A 39-Year Study.*** Respiration, Published Online: October 9, 2008. http://content.karger.com/ProdukteDB/produkte.asp?Aktion=AcceptedPapers&ProduktNr=224278

An investigation covering a span of almost 40 years on the mortality rate among workers exposed to relatively pure chrysotile in an asbestos cement factory that opened in 1968 in Greece. The factory used approximately 2,000 tonnes of chrysotile annually until 2005. Fiber concentration was measured regularly, and was always below permissible levels. Date and cause of death were recorded among all active and retired workers. No case of mesothelioma was reported. Overall mortality rate was significantly lower than that of the Greek general population. Conclusions of the authors : *"Occupational exposure to relatively pure chrysotile within permissible levels was not associated with a significant increase in lung cancer or with mesothelioma ".*

STATISTICS VS PERCEPTIONS

- **The threshold value concept...**
  - Scientific studies always refer to an exposure level below which there is no measurable health risk. Several activists refuse to consider this, as if no matter what the level of exposure or type of fibres are, the risk would be the same, contrary to a widely recognized opinion.
  - As several epidemiological studies show, including those already indicated, workers subject to chrysotile exposure at approximately 1 fibre/cc are not at measurable risk. By following this standard, chrysotile does not pose an unacceptable risk for health.
- When we see "100,000 Deaths"... we are devastated, but what does it mean exactly?
  - Those "100,000 deaths"... are not actual people counted, but projected statistical deaths.
  - Julian Peto made calculations to assess the number of people that **could** be victims of asbestos...
  - The word "asbestos" in Julian Peto's estimate includes all types of asbestos fibres, amphibole and chrysotile confounded.

WOULD PETO'S ALARMIST PREDICTIONS RESIST IN LIGHT OF TODAY'S KNOWN DATA?

- The figures published in the last thirty years as reported above indicate that controlled use of chrysotile at ~1 f/cc does not increase the risk of excess morbidity and mortality.
- What would Julian Peto's prediction be if, instead of establishing his calculations on exposure to all types of asbestos, including amphiboles, he would have only taken into account exposure to chrysotile?

RISK MANAGEMENT IN THE WORKPLACE

- Risks are present in every working environment (chemical, heavy industry, construction, etc.)
- In numerous countries, the chrysotile industry with the workers and their unions, have achieved major technical changes, revolutionized the work processes and the production and extraction practices.
- We should not confound the unacceptable working conditions of the past with the current situation. The dust levels are not the same and the asbestos spraying procedures are not permitted anymore. Not recognizing these improvements is just plain bad faith.

MANAGING THE RISKS VS BANNING

- What are the options?
  - To ban all hazardous substances, which is utopian

    OR
  - to use them responsibly in a safe manner
- Chrysotile is a natural substance and was the object of several scientific research and studies. As previously illustrated, for the past thirty years, it has been shown that it can be used in a way that does not present an unacceptable health risk.

THE ALTERNATE SOLUTION TO CHRYSOTILE

- To lobby in favour of a global ban of asbestos, including chrysotile is unwise if we do not ask questions on the risk of replacement products or fibres. The health issues for these substances have not been thoroughly assessed in scientific terms and are too often unknown.
- In each country, it is the responsibility of the competent authorities that all necessary studies be undertaken in order to demonstrate the safety of all products and fibres, such as recommended by the International Convention # 162 of the International Labour Organization (ILO).

CHRYSOTILE CAN SAVE LIVES

- Chrysotile, used in safe and controlled conditions, is an affordable and long-lasting opportunity for emerging countries in their development of sanitary infrastructures, essential to the health and well-being of their population.
- The logical answer is not to ban the use of chrysotile, but rather to help and support the countries that use it so it is handled in safe and controlled conditions.

A SENSIBLE AND EFFECTIVE SOLUTION

- Many countries have been pleading for several years, at home and abroad, in support of an approach conducive to a controlled use of chrysotile. They often raised their concerns on the fact that the difference between substances have not always been made; the ones that can be used at an acceptable risk level in controlled conditions and those that cannot be used safely.
- They also indicated their concerns regarding the representations of pressure groups and organizations demanding a global ban. Among others, this could lead to the use of replacement products or fibres that have not been thoroughly assessed in scientific terms and can pose a risk.
- Many countries wish for a better approach to the chrysotile issue as it has been scientifically established that this substance is well suited to a controlled utilization.

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