

Plenary Presentation

2.5 ASBESTOS CONTAMINATED LAND IN SOUTH AFRICA: THE CHALLENGE AND THE POSSIBILITIES

SOPHIA KISTING

*Industrial Health Research Group
University of Cape Town*

*Brief overview for Plenary Session
Global Asbestos Congress, Osasco, Brazil
September 2000*

1. Background

There has been extensive contamination of South African land by asbestos. This contamination as well as mining, milling, production and use of asbestos products resulted in asbestos exposure of workers, their families and rural communities near asbestos mines and dumps. The decades long exposure led to epidemic proportions of asbestos related disease (ARD) evident at the start of this new century. It is indeed a tragedy; more so, since knowledge of the ill health caused by asbestos dust has been known for almost a century. Also, mesothelioma was definitively linked to asbestos exposure by 1960 (Wagner) based on studies in the Northern Cape.

The asbestos health-based perspective presented here has been informed mainly by work done in the Soweto Community Health Centres (SCHC) and in the Industrial Health Research Group (IHRG). The work was done in close collaboration with workers and their trade unions, their families, community members as well as dedicated medical and legal colleagues both in the IHRG and in other centres.

The perspective is in particular informed by the histories of asbestos sufferers and their families; by their ill-health; their inability to engage in gainful employment, obtain compensation or adequate medical care and the striking poverty of the majority of them. These experiences provide the motivation for ongoing attempts to find collective solutions within our own country and to collaborate with groups in other countries to find ways to address this totally unnecessary tragedy.

We therefore thank the organisers of this congress, the people of Brazil and in particular the people of Osasco, who have made it possible for us to listen and to learn from you and to share some of our problems, challenges and hopes for an asbestos free future. We trust that we will find a common approach to asbestos, considered to be the number one cancer-causing agent in the world.

The IHRG has over the past 20 years conducted numerous health screenings, audits of medical surveillance programmes as well as health and safety training in industries where there is or has been exposure to asbestos. The

almost 10,000 workers listed on the IHRG asbestos database include workers from the following sectors:

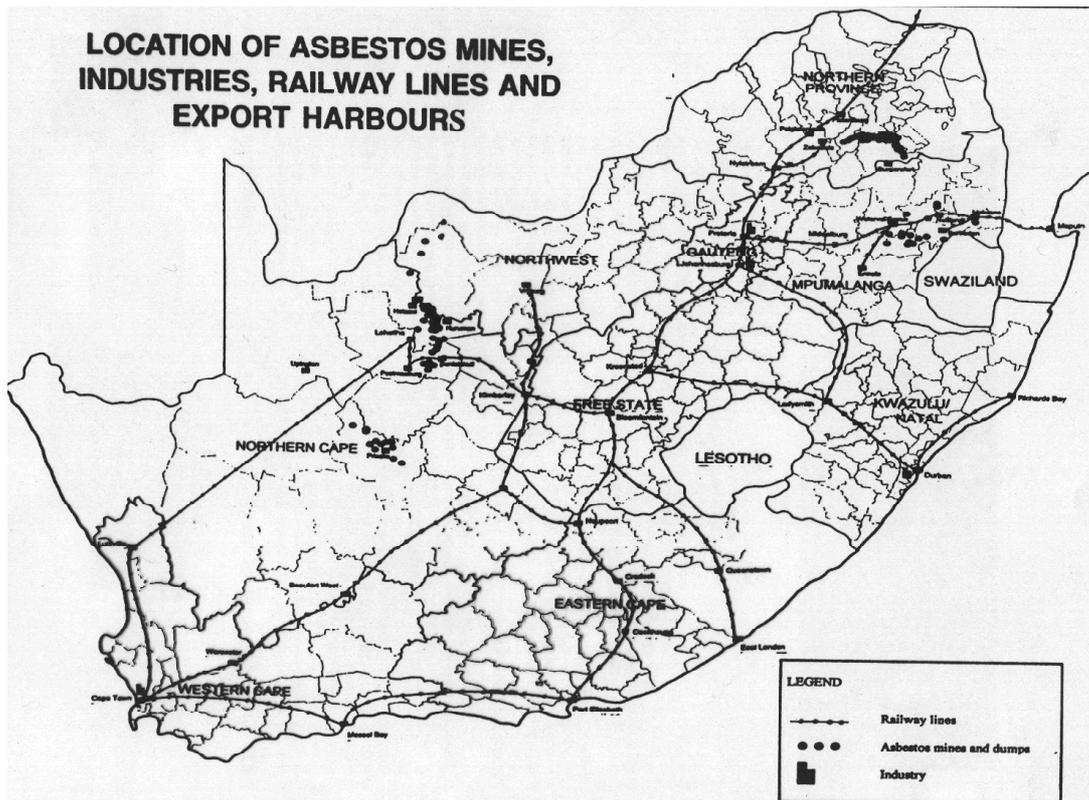
- Stevedores in the ports of Cape Town, Port Elizabeth and East London through which asbestos was exported –these screenings were done at the request of the Transport and General Workers Union (TGWU)
- Mine workers in asbestos mines in the Northern Cape, Northern Province and Mpumalanga - at the request of the National Union of Mineworkers (NUM)
- Workers in the asbestos-cement industry in factories in Gauteng, Kwazulu-Natal, Free State and Eastern and Western Cape - at the request of the Construction and Allied Workers Union (CAWU)
- Municipal workers in the City of Cape Town - at the request of the South African Municipal Workers Union (SAMWU)

Workers on the mines included workers from neighbouring countries in Southern Africa – mainly Mozambique, Lesotho and Swaziland.

2. The asbestos routes of contamination and exposure

2.1 Mining Industry

Asbestos mining in South Africa started in the late 19th and early 20th century, mainly in mines in the Northern Cape Province (crocidolite), Northern Province (amosite) and Mpumalanga Province (chrysotile). South Africa was therefore unique in mining all three types of commercial asbestos and was the world's only producer of amosite as well as about 97% of the world's crocidolite. By 1960 there were 71 operational mines employing over 20,000 workers and by 1977 asbestos output reached a peak of 380,000 tons. Asbestos companies were exporting asbestos to over 50 countries and were making extensive profits up till the decline of the industry (McCullough J).



Source: Parliament of South Africa Asbestos Summit Booklet: Towards more informed discussion. November 1998.

Poor working conditions on the mines resulted in extensive exposure to workers and to communities living near the mines. Women and children too were exposed. Only with the development of the strong trade union movement in the 1980's has there been some improvement in working conditions.

As a result of the shrinking international asbestos market as well as the banning of asbestos in many countries, production declined steadily from 1978 onwards. By 1997 the last crocidolite mine near Kuruman closed and currently in South Africa there is only one registered chrysotile asbestos mine operating in the Mpumalanga Province. The majority of ex-miners are now unemployed and is dependent on the Public Health Service for health care. Asbestos mining companies did not make provision for follow-up care of workers who may develop ARD years after they have left the mines.



Workers demonstrating about poor retrenchment agreements following closure of a crocidolite asbestos mine in 1997. Source: IHRG archives

2.2 Industry related environmental contamination and exposure

The mining industry in various provinces left behind more than 150 asbestos tailings dumps scattered in mainly rural areas. Communities living near these dumps have been exposed on an ongoing basis since many of the dumps have not yet been rehabilitated. By 1998 the democratic South African Government has spent over R44 million on rehabilitating derelict and ownerless asbestos mines and more than R50 million is still needed to complete this task.



Rehabilitation of asbestos mine dump in Northern Province. Source: Parliamentary Asbestos Summit presentation

Communities living near asbestos mines and dumps have in the past not been informed of the hazards of asbestos. Very little, if any, occupational health and safety training were done amongst workers by the asbestos mine owners. Asbestos waste generated by mining activities was often used for building materials in homes, schools, roads, sports fields and other purposes. This contributes to further pollution of the environment. Community members growing up near these dumps can recall how, as children, they played on the dumps oblivious of the long-term risk to health. The extent of the industrial environmental pollution means there is a great need for ongoing health programmes for exposed communities.



Chrysotile asbestos mill and tailings dump in Mpumalanga Province

2.3 Transport of asbestos

As indicated in the above map asbestos was transported from the mines by road and rail for export to the ports of Cape Town, Port Elizabeth, Durban and East London. Asbestos mined in neighbouring countries, Swaziland and Zimbabwe have also been exported through South African ports. Exposure of the land and people took place along these transport routes and is evidenced by the number of transport and dockworkers who have been diagnosed to suffer from ARD.



Overhead cable transporting asbestos from Havelock/Bulembo mine in Swaziland to Barberton train station. Source IHRG archives

2.4 Asbestos User Industry

The few remaining manufacturing companies in South Africa use a few thousand tons a year of asbestos and employ about 1,000 people. Asbestos is still used in asbestos-cement building materials and pipes including sheets for roofing, walls and ceilings, gutters, chimney pipes, sewerage pipes and water pipes.

Asbestos-cement products are widely used in the construction industry including low-cost housing. This creates a risk not only for the construction and maintenance workers but also for people who live in the houses. The provision of clean drinking water to communities is of vital importance and asbestos storage tanks and pipes used for the storage and transport of water result in the further release of asbestos fibres into the environment.

In the past asbestos was used in many other building materials including insulation board, floor tiles and as lagging for heat insulation especially in power stations. The asbestos used for these purposes is by and large still in place. Asbestos is also used in friction materials and in the making of asbestos rope and textile for heat insulation.

The asbestos user industry report to the 1998 Parliamentary Asbestos Summit indicate that 50,000 workers have been employed in industry over the years and that 800 workers have been compensated for ARD. Audits done by the IHRG among workers in the asbestos-cement industry indicate an ARD

prevalence of 20-30%. The asbestos user-industry is retrenching on an ongoing basis but workers say the retrenchments are unnecessary since the companies have under pressure from workers, been doing research into alternatives for decades. Workers therefore say that “Alternatives to asbestos without job losses” should be the goal and easy for companies to implement since alternatives to asbestos have been in use in many countries where asbestos has been banned.

2.5 Asbestos in place in homes, schools and other public buildings

There are thousands of homes where asbestos-cement products have been used in the construction. The risk to health has not been assessed. It is hoped that the new asbestos regulations will address this important issue.

2.6 Disposal of asbestos waste

The disposal of asbestos containing materials continues to constitute a risk to health both for workers and communities living near disposal sites.

3. Prevalence of Asbestos Related Disease

The full extent of the burden of ARD has not been fully documented. We do however, have enough material published to be able to determine the extent of the problem and do some definitive work. In view of the nature of the industrial activity and resultant exposure history it is estimated that ARD will peak within the next 20-40 years.

3.1 Kuruman – Northern Cape Province: exposure to crocidolite

Among the 947 workers exposed to crocidolite (blue) asbestos the prevalence of ARD for different screening periods ranged between 21 –39%. The higher prevalence was documented among a group of older long-serving workers.



Crocidolite asbestos mill and dump near Kuruman, Northern Cape. Source: IHRG archives

3.2 Prieska – Northern Cape: exposure to crocidolite

Several asbestos mines operated near Kuruman. An asbestos mill was operational in the centre of the town for many years. Extensive use was made of crocidolite asbestos containing materials in constructing homes, streets and public facilities. Work done in the community in 1997 (Randeree A) estimated that about 25% of a population of Prieska suffer from ARD. An asbestos community group has been established in the town.

3.3 Penge - Northern Province: exposure to amosite

The last operating amosite mine closed in 1992 and 591 workers were retrenched. The poor occupational health and safety standards and extensive environmental pollution resulted in a high prevalence of disease among men and women. The rehabilitation of the tailings dumps is still incomplete and work to diagnose ARD is ongoing (Davies T). The prevalence of ARD among workers retrenched in 1992 is 37% (NUM-IHRG reports).

3.4 Mafefe Villages Northern Province: Exposure to amosite and Crocidolite

Numerous asbestos tailings dumps have been left near the Mafefe group of villages. Rehabilitation of the dumps is incomplete. An in-depth

epidemiological study (Felix M) done in the area found that more than 40% of villagers suffer from ARD and that women constitute a large number of those affected.

3.5 Msauli – Mpumalanga Province: exposure to chrysotile

More than 1200 retrenched workers exposed to chrysotile asbestos were assessed during various screenings and it was found that between 24 –36% suffered from ARD (NUM-IHRG reports).

4. The future

We are faced with an epidemic that extends well beyond our borders because of the well-known history of migrant labour in our past. We need to know the extent of the disease burden amongst our people as experienced and related by themselves and attempt to answer the questions about the epidemic proportions of the problem. We know the magnitude of the problem is such that we need a collective, inclusive process to practically address and co-ordinate what can be done. This will enable us to plan how to:

- more effectively address asbestos related poverty and ill- health
- prevent further exposure to the current generation
- prevent future generations from being exposed
- adequately rehabilitate the contaminated land
- plan sustainable development programmes with affected workers and communities

The areas we have to address should include:

4.1 Asbestos co-ordinating group

The formalisation of a co-ordinating group from amongst the various community groups, trade unions, affected individuals, organs of civil society as well as medical, legal and research advisors will be a major step forward. Networking and support work is taking place already but a structured approach will ensure that all affected groups are represented and can make collective representation to have issues such as health care, compensation, litigation, sustainable development addressed.

4.2 Policies and Strategic Objectives Group (all stakeholders)

The Parliamentary Asbestos Summit was an important attempt to obtain adequate information about asbestos, its uses, the magnitude of the health problem and to afford affected people and communities to tell their stories. The process also made it possible to discuss the asbestos problem with greater public participation. We need to take the process forward and address the following:

- development of a National Plan to deal with asbestos tragedy
- implementation and evaluation of the important 1998 Parliamentary Asbestos Summit recommendations.
- review and implementation of new asbestos regulations
- risk assessment of asbestos-in-place
- review compensation system
- move towards a ban of asbestos

4.3 Health service provision and surveillance

Should include aspects such as:

- access to health care
- develop capacity of health professionals to diagnose and manage ARD
- develop a programme for post-employment surveillance



An elderly asbestos ex-mineworker comes to a clinic for assessment for compensation

4.4 Social Security System

Should include focus and improvement of :

- aspects of compensation
- disability assessments and payments
- sustainable development grants
- role of group class action suites to fund development programmes

4.5 Environmental Rehabilitation

Evaluation of the programme and experience of other countries are important. Currently rehabilitation is funded by the state from limited resources. Can the environmental principle of the “polluter pay” be applied?

4.6 Establish the Social and Economic Impact of the Burden of ARD

This should also include:

- living conditions
- ability to make a living
- sources of health care
- the exposure of women and children historically
- sources of compensation and support



Women near a hostel for asbestos mineworkers in Northern Cape Province

In conclusion we salute the international efforts to address the legacy of this major problem faced by so many thousands of people. We trust that this forum will take decisions and practical steps that will advantage those suffering from asbestos related disease and also find ways to protect current and future generations.