

# Plenary Presentation

## **1.6 JOINT HEALTH INITIATIVE: MOUNT SINAI HOSPITAL - OSASCO PROJECT**

DRS. STEVEN MARKOWITZ AND JOÃO DE SOUZA FILHO

(Ed. We have only the remarks of Dr. Markowitz relating to this project (obtained by transcription from a video recording). Also included (again from the video) are replies to two questions, fielded jointly by Drs. Markowitz and Lemen.)

"Good Afternoon. First let me thank the organizers, in particular Dr. Filho and Ms. Giannasi, for inviting us to participate in this meeting and also for asking us to engage in a cooperative agreement to assist in the recognition of asbestos-related disease here in Brazil. May I extend the well-wishes of the faculty of the Mount Sinai School of Medicine and the City University of New York for a very successful meeting.

No meeting such as this should occur without a brief mention of the contribution of Dr. Irvin Selikoff the great Mount Sinai asbestos researcher. And I will spend just a couple of minutes talking about Dr Selikoff. In New York we consider it a hazardous occupation to be the last speaker between the audience at a conference and lunch so I will be brief. I want to tell you a little bit about Dr Selikoff because it's really in that tradition that we form this agreement with the city of Osasco.

Dr Selikoff began his work in the mid 1950s, actually in tuberculosis, for which he won a national award by 1956. He could have had an office on 5<sup>th</sup> Avenue in Manhattan, a prestigious private practice in pulmonary medicine, but he didn't. He chose to set up a practice in Patterson, New Jersey, across the river from New York, not far from an asbestos factory which had existed from the early 1940s, a factory called Unarco which had made asbestos products for the World War Two effort for the United States. And as a pulmonary physician with no training, really, in occupational medicine he began to see large numbers of patients, former workers from the Unarco plant, in his practice and noticed that a large number of them had scarring of the lungs, which he concluded was due to asbestos. It would be as if someone here, a physician who was aware and intelligent, had set up a private practice not far from the Eternit plant here in Osasco and begun to see workers who had worked in that facility. It stimulated Dr. Selikoff's interest in asbestos. Within a few years he established what became the largest study of asbestos workers in the world: a study of insulators who applied asbestos in the United States and Canada, a study of 17,800 workers which he continued from about 1961 until his death in 1992.

In 1964, he published, what became a landmark article on asbestos and cancer, in the Journal of the American Medical Association and unlike many other scientists and physicians he actually worked very hard to get information out about the problems of asbestos and health effects. In 1965 he was in the office of then President Lyndon Johnson talking about the hazards of asbestos. By the late 1980s Dr. Selikoff had won many awards, yet in his office at Mount Sinai he wouldn't have any of these awards displayed. The only thing on his wall, really, was this picture of him in the White House explaining to President Johnson the problems with asbestos and the need to do something about them.

At the same time Dr. Selikoff embarked upon a series of international conferences, which I'm sure some of the people here at this conference attended – first in 1964, then in 1968, 1979 and 1990. These were very influential meetings in which scientists and unions participated from different countries and in which there was communication about the problems of asbestos. I think he could have learned something from Fernanda. He did not begin those meetings with concerts, but it wouldn't have been a bad idea at all. These meetings were sponsored by the New York Academy of Science and Dr. Selikoff was smart enough to make sure the proceedings of the meetings were published in long books that really became the bibles at the time – the bibles for understanding the health effects, from many different countries, with reference to asbestos. Dr Selikoff continued his study of the insulators, for 30 years. And he was really responsible, I think, not for the first discovery of asbestos problems, we know that, but for really documenting the fullest expression of asbestos-related disease among one of the more heavily exposed groups in the world.

In the 70s, then into the 80s he moved on to try to develop an institutional framework to carry on in occupational medicine. He cofounded the Society for Occupational and Environmental Health of which Dr. Lemen is now President and is supposed to – actually Dr Lemen has just arrived and will give a speech a little later about that. [Ed. Dr. Lemen had been delayed and prior to this point no one was sure he would be able to deliver his speech.] He cofounded the Collegium Ramazini, which is an international group of scientists dedicated to the study and communication of all occupational disease, including asbestos-related disease. To some, Dr. Selikoff was a tireless worker who was bent on both discovering new knowledge and, as importantly, on applying that knowledge for the benefit of workers, ultimately to prevent further disease from occurring. It is in that spirit that we have engaged in this cooperative agreement with the City of Osasco. We start this with limited financial support for this conference.

On November 2<sup>nd</sup> Dr. Vilton Raille, who is a physician from here, will begin as an Irving Selikoff fellow at Mount Sinai, which will be a two-year process – most of his time will be spent here not in New York. We will help him learn more and establish systems for the diagnosis and treatment of individuals with asbestos disease and for public health surveillance of asbestos disease in Brazil. We hope to move further and work with Dr Raille and others here for the diffusion of medical knowledge about asbestos to ensure that general medical practitioners are better informed about asbestos and better able to diagnose disease. So, let me now close and say that we are very thankful for the opportunity for this cooperation. And, as importantly for us, the opportunity to continue the legacy that Dr. Selikoff started nearly fifty years ago. Thank you."

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## Replies to Questions from the Floor of the Congress

*Dr Richard Lemen* replying to a question from Fernanda Giannasi about the lack of an Asbestos ban in the USA:

"I'll take a stab at that. I think that you may recall that the Environmental Protection Agency did try and ban asbestos in the United States several years ago, but the industry took them to court and took them to a very sympathetic court. And the court overruled the ban. With that, the EPA pretty much gave up their fight to try and ban asbestos. I think it's important for organizations such as the one that I belong to, the Collegium Ramazini and other organizations – your organization – to really put pressure on the EPA because that's really where a total ban would come through. I think there's more sympathy for that, but right now, with an election for President coming up, it will not carry much weight at the present time. It will depend upon who becomes President. If George W. Bush becomes President, there won't be a ban on asbestos. If Vice President Gore becomes President, then I think it's very possible that reopening this issue with the EPA could resolve the main ban. Particularly with the leadership that the European Community has given, also Scandinavia; the pressure is there and I think it's going to occur, but when, I'm not sure."

*Dr. Markowitz:*

"Well I think a ban would be important. Almost more for symbolic reasons than anything else in the United States and also as a precedent in both our country and outside. But frankly, I'm more concerned about the asbestos we have in place in the United States and the fact that there are hundreds of thousands of workers who have to work in close proximity to that asbestos – and that that asbestos will be there for decades and that those workers will have continued exposure.

The amount of new asbestos introduced in the United States is very limited, but the amount that we have in place and the threat from that still to workers – and will be in the future – is in a sense of higher priority for the occupational health world in the United States than an outright ban. Obviously, a ban is a highly political topic. The question is what fight does the EPA want to undertake in the future. It may be that the asbestos ban will be of higher priority or it may be that air pollution in general will take higher priority. It really depends. It's unlikely to occur any time in the near future. "

*Dr Lemen:*

"I would totally concur with that. The real issue that we have is the in-place asbestos. A ban is a start, but we're still going to have to deal with the in-place asbestos for many, many years to come."

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In framing a second question from the floor, *Joy Manglani*, ostensibly representing an Indian NGO, but obviously conducting an industry spoiling exercise, claimed that the toxicity of asbestos had been overstated vis-à-vis other hazardous materials and that asbestos substitutes (plastics and metals) posed worse health hazards than asbestos itself. Among the sources he briefly hijacked to support his contention were:

the US Agency of Toxic Substances and Diseases Registry ranking asbestos as its 118th most hazardous substance;

studies by the University of Massachusetts showing that the risk level in the asbestos industry was between 1.5 and 12, whereas risks, for example, in the plastics industry might reach 200;

IARC studies, which he alleged showed that asbestos substitutes (including metals and plastics) have no threshold minimum value for toxicity, whereas he claimed they stated asbestos to have a minimum value of 2 fibres / cc;

WHO studies (1999) of diseases caused by alternatives, which he claimed showed that the diseases caused by the alternatives are worse than for asbestos;

WHO (2000) document ranking risks in the metal industry at 700 versus 1.5 for asbestos;

US court judgements saying that the alternatives (plastics and metals) probably cause more hazards than asbestos therefore a ban of asbestos would not be fair.

comments by the American Medical Association.

His question, finally, was:

"Although we know that asbestos is bad we have found that the alternatives are much worse. So what should we do in this situation?"

(During this intervention there was rising, audible indignation among the delegates, but the panel replied to the question equably enough.)

*Dr Lemen:*

"First of all, I'm not aware of all the studies that you quoted, but I can say that the ATSDR in their ranking of materials are only ranking hazardous waste sites and these are reflecting water in hazardous waste sites. So it's not really talking about the toxicity of asbestos; it's talking about the amount of asbestos that's found in hazardous waste sites. So I don't really think that the ATSDR Federal Government ranking in that case is a ranking of toxicity. It is more a ranking of amount, as I understand it.

And as far as the substitutes go, I'm not familiar with the Massachusetts study, but I think that what they're looking at are the workers that are in the manufacturing process. Certainly, once you have plastic pipe manufactured (and it can be manufactured so) in enclosed systems, very limited and no exposure can occur. I think they are looking at historical reports that show the exposure in the plastics industry to be much higher than it is capable of being today. And certainly plastic for potable water, in my understanding, does not leach off any of the plastic, whereas with asbestos cement pipe, depending on the acidity it can leach higher amounts. And the other problem is that the disposal of the asbestos cement pipe also can cause potential problems.

So, I know that it sounds confusing with these studies, but I think you also have to look at who funded a lot of these studies. Some of the stuff that you quoted – I think you would find that the industry may have a very important role. And that's one of the reasons I would like to see more transparency when authors put out studies – as to where their funding is coming from and why they are saying what they're saying."

*Dr. Markowitz:*

"I agree with what Dr Lemen said. It's very hard to respond to particular studies that I think are probably taken out of context. What we know about asbestos-related disease is that there literally thousands and thousands of articles documenting hundreds and hundreds of studies showing that the burden of asbestos-related disease has been monumental. Those aren't based largely on risk assessments, those are based on epidemiology and clinical studies where the actual numbers of people are counted who have suffered and died from asbestos-related disease. There is no other agent, not benzene, not vinyl chloride, not chromium, not lead, that even approaches the burden of disease that asbestos has caused worldwide. And to raise other possibilities that are far more speculative against this burden of disease that we know about, really does disservice to what we know about asbestos and how hard people have worked to learn about that and what can be done with that knowledge."

(Drs. Markowitz and Lemen went on to answer a number of other questions from the floor.)