Although it is well recognised that silicosis is one of the most common occupational lung diseases worldwide, exposure to silica dust in the workplace plays an even larger role in global health as it contributes to the Tuberculosis (TB) epidemic. TB is now the most prevalent and most deadly infectious disease worldwide accounting for 1.3 million deaths per year. Silica dust exposure, even without clinically evident silicosis, has been demonstrated to increase the life-long risk of TB. Furthermore, occupational silica dust exposure among workers who are HIV positive in high-burden TB countries is a deadly combination increasing the risk of active TB by 15-fold. Global TB efforts are almost exclusively focused on case identification and treatment with few resources going to prevention. Silica dust controls in the workplace can be an effective TB prevention strategy that has yet to be fully understood and embraced by global health funders. Low cost silica dust controls have been demonstrated even in resource constrained informal sector enterprises. Investments in dust controls in the workplace to prevent disease are more cost effective than programs to identify and treat cases of TB. Countries with a high burden of TB and HIV with large mining and construction sectors should be prioritised. There is increased recognition that the global response to the TB epidemic is falling short and that drug-resistant TB is a growing threat. Occupational health professionals can play an instrumental role in making the case that silica dust controls should be incorporated into global health strategies to help meet the UN Sustainable Development Goals to end TB by 2030.

1741b PROTECTING HEALTH CARE WORKERS FROM OCCUPATIONAL TUBERCULOSIS AND ITS EFFECTS: LONG ON GUIDELINES, SHORT ON IMPLEMENTATION?

RI Ehrlich. School of Public Health and Family Medicine, University of Cape Town, South Africa

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Guidelines for prevention of occupationally-acquired tuberculosis developed by the CDC in the 1990s onwards established the primary prevention triad of administrative, environmental and personal protective practices, augmented by secondary prevention measures such as screening for and treatment of latent tuberculosis infection and active disease in health care workers. More recently, a refocusing on the administrative level as 'Find (patient) cases Actively, Separate temporarily and Treat effectively' (FAST) has been advocated. The difficulty of applying all of these measures in low resource high tuberculosis burden settings, where most cases of occupational tuberculosis occur, was recognised by the WHO in the late 1990s. WHO modified its guidelines to apply to settings characterised by undiagnosed tuberculosis in all parts of the health system, HIV-TB co-occurrence, limitations on staff and other resources for triage, isolation, environmental controls and respirators, delays in diagnosis and in treatment of patients and shortage of drug sensitivity testing. Secondary prevention is similarly limited by shortage of skills, particularly in occupational health, and constrained by staff fears regarding lack of confidentiality and job security. Competition for management attention and resources, with attendant fragmentation of effort, add to the problem. Health care workers activists have recently called for advocacy pressure on governments and health authorities to take seriously the need to prevent

transmission of tuberculosis in health care facilities, particularly in the face of rising drug resistant tuberculosis and co-occurrent HIV. This includes an occupational health approach capable of encompassing the whole spectrum of prevention. It would give weight to primary prevention appropriate to low resource settings, but also include surveillance of occupational tuberculosis, co-management of HIV and TB, protection of students, provision of effective treatment, strengthening of worker rights in the form of income, leave and job protection, stigma reduction while promoting self-disclosure, and compensation for those permanently affected.

1722 POLICIES FOR ELIMINATION OF ASBESTOS RELATED DISEASES (ARDS): A GLOBAL PICTURE

¹Jorma H Rantanen, ²Henrik J Wolff. ¹University of Helsinki, Helsinki, Finland; ²Finnish Institute of Occupational Health, Helsinki Finland

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Aim of special session Due to their high incidence and high rates of mortality ARDs are the occupational diseases with the greatest impact. In spite of intensive preventive actions in many countries, the incidence of ARDs are often still growing as the latency periods of malignancies are expiring. Even more disturbingly asbestos is still used in many parts of the world.

There are several ongoing national and global initiatives and programmes for elimination of ARDs, including primary prevention through a ban, protection of demolition workers and better identification, notification, registration, reporting and compensation of disease cases. Policies in countries and continents have several common features, but also important differences in practical implementation and results.

To achieve a decline of ARDs globally, global actions for elimination of use of asbestos are required together with a careful protection of workers in the works for demolition and handling of existing asbestos and asbestos contaminated waste.

The session aims to compile a global overview of the present situation in the ARD elimination policies in different parts of the world by drawing from national and regional experiences and will discuss the proposals for global action for elimination of asbestos-related diseases.

¹Dr. Henrik J. Wolff, ²Professor Ken Takahashi, ³Professor Seong-Kyu Kang, ⁴Professor Jorma H Rantanen, ⁵Dr. Eduardo Algranti, ⁶Professor Philip Landrigan

¹Finnish Institute of Occupational Health, Helsinki Finland

²Asbestos Diseases Research Institute, University of Sydney, Australia

³Gachon University Gil Medical Centre, Incheon, Republic of Korea

⁴University of Helsinki, Helsinki, Finland

⁵Fundacentro, Sao Paulo, Brazil

⁶Mount Sinai School of Medicine, New York (NY), USA

1722a OPENING POLICIES FOR ELIMINATION OF ASBESTOS RELATED DISEASES (ARDS): A GLOBAL PICTURE

H Wolff. Finnish Institute of Occupational Health, Helsinki, Finland

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The extensive health risks of asbestos have been clearly demonstrated in epidemiological and clinical research: There is little doubt that we can call ARDs a global epidemic of distressing proportions. An important, if hard won, legacy of this epidemic is the knowledge of the toxicology of fibrous materials that asbestos has taught us. This legacy has been well employed in regulation of man-made vitreous fibres (MMVF). Another expression of this legacy is that we currently spend about 250–300 million euros/year on nanotoxicology partially in order to prevent a ARDs like epidemic caused by an engineered nanomaterial. There is an irony in that, while we have been successful in eliminating asbestos like risks from other materials, asbestos itself is still around all over the world.

Some positive trends are however seen:

- a. In policy:
 - The number of countries banning asbestos grows (now 75)
 - Intensive policy and practical interventions have been undertaken by the UN, the World Bank, the ILO, WHO, EU and the Council of Europe and several NGOs, not least the ICOH
 - Several countries have drawn up national asbestos profiles and launched national programmes for elimination of ARDs and national demolition programmes are proposed.
- b. In practices:
 - The global estimates of ARDs, derived from several sources, are converging
 - Advances in clinical medicine allows for more accurate and earlier diagnosis of ARDs.
 - New diagnostic entities are recognised as ARDs (e.g. larynx and ovarian cancers)
 - Guidelines for good diagnostic practices and attribution are provided.

This Session will monitor all continents for the current asbestos situation and trends, consumption, health impact, policy and practical actions and proposals for future actions. We wish to produce proposals for further global actions by national and global actors.

1722b GLOBAL SITUATION IN THE ARDS

K Straif . *International Agency for Research on Cancer, Lyon, France*

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This presentation will serve as an introductory overview to the following presentations on regional trends and perspectives on asbestos related diseases (ARD). First, the evidence on

ARD will be summarized regarding asbestos related cancers (based on the IARC Monographs) and other asbestos related diseases (based on the Helsinki criteria). Next, a brief overview will discuss strengths and limitations of the different approaches to estimate the burden of ARD, and also point to ongoing activities on ARD. The presentation will conclude with global policy on the elimination of ARD.

1722c ASBESTOS RELATED DISEASES IN ASIA: TRENDS AND PERSPECTIVES

S-K Kang. *Gachon University Gil Medical Centre, Republic of Korea*

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Asbestos production and consumption Asbestos has not been widely used in Asia before 1970s. Asbestos consumption reached the peak in 1980s (Japan, Singapore) and 1990s (Korea). Since then, the consumption has sharply dropped in those countries. However, asbestos is continuously used in many Asian countries. The estimated amount of consumption in Asia is still approximately 2 million metric tons. More than Two-third of asbestos is being used in Asia while less than 20% had been consumed before 1970s. Most asbestos consumed in Asia was produced in China or imported from Canada and Russia.

Asbestos-related diseases Japan showed sharp increase of mesothelioma since 2005 and the number of mesothelioma has continuously increased in Korea since 2000. However, most Asian countries do not have data of asbestos-related diseases (ARD). The reasons would be the time lag between the exposure and outcomes and the lack of resources (accessibility, equipment, skilled manpower) needed for detecting ARDs.

Policies and practices Japan banned asbestos in 2006 after experiencing massive outbreak of ARDs, and followed by Korea (2009) and Brunei. Singapore technically banned asbestos although they did not announce the policy of ban on asbestos. Taiwan will ban asbestos by 2018. There are some countries to struggle against strong opposition to the direction of ban on asbestos. So far, Korea and Japan ratified the ILO Convention 162, which has been done by 35 countries in the world as of 2017.

Proposals for further actions Public awareness would be the most important factor to ban on asbestos in Asian countries. Social pressure would make the government do an action. Detecting cases of ARDs would be the effective way of persuading the policy makers based on Korean experience. A continuous pressure from international organisations or academic societies would be advantageous to those who are working on banning asbestos in the country.