ILO & WHO pursuit of a global asbestos ban and the potential role of the Pacific
Background

- ILO Asbestos Convention No 162 and Recommendation No 172 (1986)
  - Safety in the use of asbestos, prohibitions, obligations
- ILC Resolution concerning asbestos (2006)
  - Elimination of future use of asbestos
- Resolution WHA 58.22 (2005) on Cancer Prevention and Control
  - Countries should pay special attention to cancers for which avoidable exposure is a factor
- Resolution WHA60.26 (2007) Workers' Health: Global Plan of Action
  - Global campaign on elimination of asbestos-related diseases, bearing in mind a differentiated approach to regulating its various forms
- WHO document "Elimination of asbestos-related diseases", 2006
- WHO/ILO outline for the development of national programmes for elimination of asbestos-related diseases, 2007
Asbestos-related diseases

Exposures
- Fibre type
- Fibre size
- Fibre dose
- Industrial process
- Concentration
- Length of exposure
- Type of exposure: work, home, environment

Latency period
- 10 to 40 years

Modifying factors

Diseases
- Lung cancer
- Mesothelioma
- Laryngeal cancer
- Ovarian cancer
- Other cancers
- Asbestosis
- Pleural plaques, thickening and effusions

Tobacco smoke
Worldwide 125 million people are exposed to asbestos
The majority in Asian countries

Population exposed to asbestos by WHO region and mortality stratum (thousands)
Asbestos is the most important occupational carcinogen

Global burden of disease from occupational cancer, 2000

<table>
<thead>
<tr>
<th>Cancer type</th>
<th>Attributable deaths</th>
<th>Attributable DALYs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung cancer</td>
<td>191,000</td>
<td>1,315,000</td>
</tr>
<tr>
<td>Leukaemia</td>
<td>7,000</td>
<td>101,000</td>
</tr>
<tr>
<td>Mesothelioma</td>
<td>43,000</td>
<td>564,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>241,000</strong></td>
<td><strong>1,980,000</strong></td>
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</tbody>
</table>

Global burden of asbestos-related cancer, 2000

<table>
<thead>
<tr>
<th>Cancer type</th>
<th>Attributable deaths</th>
<th>Attributable DALYs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung cancer</td>
<td>39,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Mesothelioma</td>
<td>43,000</td>
<td>564,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82,000</strong></td>
<td><strong>925,000</strong></td>
</tr>
</tbody>
</table>
Every year at least 107,000 people die from asbestos-related diseases

- Annual deaths attributable to asbestos
  - at least 107,000 from lung cancer, mesothelioma and asbestosis due to occupational exposure
  - Additionally at least several thousands deaths can be attributed to other asbestos-related cancers and to non-occupational exposure

- Asbestos is the single most important occupational carcinogen causing one third of all estimated deaths from occupational cancer
There are safer substitutes to chrysotile

- **Fibre substitutes**
  - short fibre attapulgite
  - carbon fibres
  - non-respirable cellulose fibres
  - non-biopersistent synthetic vitreous fibres
  - natural wollastonite
  - xonotlite

- **Non fiber substitutes**
  - Carbonates
  - Perlite
  - PVC
  - Conventional building materials

¹WHO Workshop on Mechanisms of Fibre Carcinogenesis and Assessment of Chrysotile Asbestos Substitutes, 8-12 November 2005, Lyon
Summary of the conclusions from WHO assessments

1. **All forms** of asbestos, including chrysotile, are human carcinogens
2. **No safe threshold** level of exposure has been identified for carcinogenic effects of chrysotile
3. **Safer substitutes** exist for all uses of chrysotile
4. Exposure of workers and other users of asbestos containing products is extremely **difficult to control**
5. Asbestos abatement is **very costly and hard** be carried out in a completely **safe way**
WHO recommendations for elimination of asbestos-related diseases

- Elimination of the exposure
  - Recognize that stopping the use of asbestos is the most effective preventive measure
  - Provide information about safer substitutes
  - Develop economic and technological mechanisms to stimulate substitution

- Asbestos abatement
  - Avoid exposure during asbestos removal
  - Develop regulatory and workplace control measures for asbestos abatement

- Medical surveillance
  - Improve early diagnosis, treatment, rehabilitation and compensation of asbestos-related diseases
  - establish registries of people with current and past exposures
Use of chrysotile in settings with constrained resources

Possibly asbestos containing building materials in the Pacific
ILO Asbestos Convention No 162 from 1986

To date, ratified by 32 countries and widely voluntary applied
General principles

- National policies and regulations
- Prescription of protective, preventive and control measures
- Review of laws in the light of technological progress and scientific knowledge
- Responsibilities of employers and workers
- System of inspection for enforcement
Protective and preventive measures

Prevention and control of exposure (Art.9)

- adequate engineering controls, work practices occupational hygiene
- prescription of special rules and procedures for use of asbestos or products containing asbestos or certain work practices

Special measures (Art.10)

when necessary to protect the health of workers and technically practicable:

- replacement of asbestos by other materials scientifically evaluated as harmless or less harmful
- total or partial prohibition of asbestos or asbestos-cement materials in certain work practices
Protective and preventive measures (cont'd)

- Prohibition: crocidolite, spraying all types
- Notification of use of asbestos by employers
- Producers’, Manufactures’ and Suppliers’ responsibilities for labelling
- Prescription of exposure limits by law
- Measures to prevent or control the release of asbestos dust into air
- When protective measures do not bring exposure within exposure limits, employer will provide respiratory personal protection and special protective clothing
- Respiratory protection to be used as supplementary, temporary, emergency or exceptional measure and *not as alternative to technical control*
Protective and preventive measures (cont'd)

Demolition and removal of asbestos
• to be undertaken only by employers or contractors recognized by the competent authority as qualified to carry out such works

Clothing and washing facilities
• to be provided by the employer, cleaning carried out under controlled conditions, prohibited to be taken home

Asbestos waste disposal
• to be disposed by employers without health risks to the workers concerned, those handling waste or to populations in the vicinity of the enterprise
• appropriate measures to be taken to prevent pollution of the general environment
Surveillance of work environment and workers' health

Dust Concentration Evaluation and Exposure Monitoring (Art.20)

Workers’ Health Monitoring (Art. 21)
- periodic medical examinations
- development of system of notification of asbestos-related diseases
Information and education

Governments, employers' and workers' organizations
- disseminate information and promote education on health hazards and methods of prevention

Employers
- establish written policies and procedures for education, training and re-training

Workers
- be informed, instructed in preventive measures, receive continuing training
the elimination of the future use of asbestos and the identification and proper management of asbestos currently in place are the most effective means to protect workers from asbestos exposure and to prevent future asbestos-related diseases and deaths.

the Asbestos Convention, 1986 (No. 162), should not be used to provide a justification for, or endorsement of, the continued use of asbestos.
Outline for the Development of National Programmes for Elimination of Asbestos-Related Diseases

Introduction

The term "asbestos" designates a group of naturally-occurring minerals with current or historical commercial use due to their extraneous conduction and relative resistance to chemical attack. The principal serpentine material, and crocidolite, amosite, anthophyllite, tremolite amphiboles.
National programmes for elimination of asbestos-related diseases - ILO/WHO outline

- Introduction and purpose
  - Health aspects
  - Magnitude of the problem
  - Economic and social aspects

- Political and legal background
  - National legislation
  - International commitments

- Strategy for elimination of asbestos-related diseases
  - Preventive strategies
  - Strategic actions – national, provincial and enterprise levels
National programmes for elimination of asbestos-related diseases cont'd

• Knowledge management
  – information about substitutes
  – registry of exposed workers
  – capacities and resources

• Implementation
  – Preparatory phase – building up political commitment
  – First phase – reduce exposure to chrysotile
  – Second phase – stop use of chrysotile

• Monitoring and evaluation
  – outcome
  – process
  – Administration
National asbestos profile

- Current regulations and exposure limits on the different forms of asbestos
- Import, production and consumption of asbestos and asbestos-containing materials
- Estimated total number of workers exposed to asbestos in the country
- Full list of industries where exposure to asbestos is present in the country
- Estimate of the burden of diseases related to asbestos
- Statistics on asbestos related diseases
- Estimates on the percentage of house stock and vehicle fleet containing asbestos
- System for inspection and enforcement of the exposure limits
- Estimated economic losses due to asbestos-related diseases
Conclusion: Potential role of the Pacific

- Asbestos causes diseases and deaths of workers and consumers with a long latent period
- Stopping the use of asbestos is most effective (and inexpensive)
- PacWaste Project is an excellent opportunity to assess, manage and communicate on the asbestos hazards in the Pacific island countries
- Strong leadership in the governments is crucial in health, labour and environmental policies against asbestos
- ILO and WHO will work other intergovernmental organizations and civil society towards elimination of asbestos-related diseases worldwide
- The Pacific offices of ILO and WHO will collaborate to support the Pacific island countries in eliminating the use of asbestos in the Pacific
Further information

WHO 2006. Elimination of asbestos-related diseases

ILO & WHO, 2007 Outline for the development of national programmes for elimination of asbestos-related diseases

WHO 2007, Cancer Control: WHO Guide for Effective Programmes, Module Cancer Prevention
http://www.who.int/cancer/modules/Prevention%20Module.pdf

workershealth@who.int
safework@ilo.org