Asbestos
Burden of Occupational Cancer Fact Sheet

WHAT IS ASPBESTOS?
Asbestos is a group of naturally occurring, fibrous silicate minerals. The manufacturing and use of asbestos-containing products is severely restricted in most western countries, including Canada, and in some countries it is banned. Asbestos has historically been useful for many commercial applications because of its heat resistance, tensile strength, and insulating and friction characteristics. It is found primarily in roofing, thermal and electrical insulation, cement pipe and sheets, flooring, gaskets, friction materials, coatings, plastics, textiles, and other products.
The International Agency for Research on Cancer classifies asbestos as a known carcinogen (IARC 1).

WHAT ARE ITS HEALTH EFFECTS?

- Mesothelioma (a cancer of the protective lining of many internal organs)
- Lung, laryngeal, and ovarian cancer
- Asbestosis (scar tissue in the lungs)

WHAT IS THE ECONOMIC IMPACT?
Results show that work-related asbestos exposure resulted in approximately $2.35 billion in costs for newly diagnosed lung cancer and mesothelioma cases in 2011.

- 65% in health-related quality of life losses
- 8% in direct costs including health care, out of pocket expenses, family care giving, and workers’ compensation administration
- 27% in indirect costs including output and productivity losses

THE BURDEN OF CANCER FROM WORKPLACE EXPOSURE TO ASPBESTOS IN CANADA
The term ‘burden’ refers to the human impact (deaths, illness, years of life lost) and the economic costs (health care, productivity) associated with a cause or group of causes of disease.

Results show that approximately 1900 lung cancers and 430 mesotheliomas are attributed to occupational asbestos exposure each year, based on 2011 cancer statistics. This amounts to 8% of all lung cancers and 81% of all mesotheliomas diagnosed annually (almost all of the remaining mesotheliomas are likely due to environmental asbestos exposure).

1,900
Lung cancers caused by workplace asbestos exposure

$2.35 billion
Estimated yearly cost of lung cancer and mesothelioma caused by asbestos exposure
WHAT WORKERS ARE MOST AFFECTED?

Most asbestos-related cancers occur among workers in the manufacturing and construction sectors (see pie chart on right). These cancers also occur among workers in the transportation and storage sector and government services. Some of the other sectors affected include communication and other utilities, educational services, and wholesale trade.

CAREX CANADA ASSESSMENT OF OCCUPATIONAL EXPOSURE TO ASBESTOS

Inhalation is the most important route of occupational exposure to asbestos. Approximately 152,000 Canadians are exposed to asbestos at work.

Industries with the largest number of exposed workers in Canada include:
- Specialty trade contractors (82,000 people exposed)
- Building construction (52,000 exposed)
- Automotive repair and maintenance (4,300 exposed)

Occupations with the largest number of exposed workers include:
- Carpenters (34,000 exposed)
- Construction trades helpers and labourers (28,000 exposed)
- Electricians (16,000 exposed)

HOW CAN EXPOSURE BE REDUCED?

Asbestos-related cancers can be prevented by reducing the number of workers exposed and ensuring that the levels of exposures are as low as reasonably achievable (ALARA). Organizations should evaluate the risk of exposure in the workplace and implement the hierarchy of controls to address the safety needs of workers.

ABOUT THE BURDEN OF OCCUPATIONAL CANCER STUDY

The Burden of Occupational Cancer Study aims to quantify the number of cancers that are caused by exposure to carcinogens in the workplace in order to identify priority areas for prevention. It is a collaboration between researchers at OCRC, CAREX Canada, the Institute for Work & Health, University of British Columbia, Université de Montréal, Institut de recherche Robert-Sauvé en santé et en sécurité du travail, and Imperial College London.

For more information, please visit OCRC at www.occupationalcancer.ca or CAREX Canada at www.carexcanada.ca.

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