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**CARCINOGENS EXPOSURE PREVALENCE AS A FIRST STEP TOWARD PREVENTING OCCUPATIONAL CANCERS: CHALLENGES AND DRAWBACKS**

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**Objectives** Ascertainment of the occurrence of exposure to carcinogens and its quantification are the first steps toward preventing occupational cancer. A descriptive study was set up to estimate the importance of potential exposure to carcinogens among the Quebec 3,5 million workers.

**Methods** For agents considered carcinogenic or probably carcinogenic to humans in the Quebec legislation and in the IARC classification (groups 1 and 2A), we obtained estimates of potential exposures by industrial sector from 5 sources: laboratory analyses of chemicals monitored in Quebec workplaces by public health agencies, the 1998 Quebec Social and Health Population Survey, a few specific industrial hygiene research projects, data produced by CAREX Canada (the University of British Columbia equivalent of CAREX), and published data from the French SUMER survey and from the MATGÉNÉ job-exposure matrices project. Labour force data were extracted from the 2006 Canadian Census.

**Results** Potential exposure data were obtained for 19 recognised and 19 suspected carcinogens. Using CAREX Canada data (available for the largest number of carcinogens), the most common exposures were solar radiation (5.7%), diesel exhaust fumes (4.4% of workers), polycyclic aromatic hydrocarbons (2.0%) and wood dust (1.8%). Occasionally, different estimates were obtained from other sources of data; for example, the 1998 Quebec population survey produced a larger estimate for wood dust exposure (10.7%).

**Conclusions** Variations between estimates obtained with different data sources pose a challenge for calculation of the exposed population. However, targeting key population groups for intervention and identification of research priorities and knowledge gaps remain feasible with these data.