Methods The JEM was constructed using data of 4479 subjects who participated in 2 previous case-referent studies on lung cancer. Detailed occupational histories were collected from interview using a standardised structured questionnaire. Job title was coded in accordance with the International Standard Classification of Occupation-1991. A panel of experts reviewed the participant records. The historical monitoring data from the Department of Labor of Hong Kong were used to estimate the exposures to major occupational hazards semi-quantitatively.

Results The structure of this JEM was three dimensional. It included 1018 job titles and the 28 most common occupational hazards in Hong Kong, and covers 5 calendar periods from before 1965 to 2009. The job-axis covered information about both the industry and the job task. The exposure estimate provided information of probability, level and frequency of exposure to specific occupational hazards.

Conclusions The JEM allows the user to quickly estimate occupational hazard exposures for large databases that include information on occupation. Using population level workforce (occupation) statistics, the JEM will enable the estimation of the frequency of worker exposures to various hazardous materials and the level of such exposures. These exposure estimates are necessary for guiding the allocation of resources for preventing occupational and work-related diseases at the population level. The JEM will facilitate further epidemiological research on occupational health in Hong Kong.

P41 DEVELOPMENT OF A GENERIC JOB EXPOSURE MATRIX FOR HONG KONG

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Objectives To develop a generic Job Exposure Matrix (JEM) that uses coded occupation titles to generate semi-quantitative estimates of exposure to potential occupational hazards in Hong Kong.