P40 MANUAL CODING AND AUTOMATIC RECODING OF OCCUPATIONAL CODES: CONSEQUENCES FOR EXPOSURE ASSESSMENT

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Objectives In epidemiological studies, occupational exposure levels are often assigned through linkage of job histories with job-exposure matrices (JEMs). For a cohort where jobs were originally coded using a Dutch occupational coding system (CBS-84), jobs needed to be re-coded to ISCO-68 and ISCO-88 to facilitate the application of several JEMs. The aim of this study was to investigate whether using a crosswalk to recode occupational codes would result in similar exposure estimates to those obtained when jobs were manually coded from questionnaires.

Methods Crosswalks were developed and used to recode occupational codes from CBS-84 to ISCO-68 and ISCO-88. A subset of jobs (n=220) was also manually coded from questionnaires to ISCO-68 and ISCO-88. JEMs were applied to the occupational codes resulting from manual coding and from applying crosswalks. Ten occupational exposures were linked, among which chromium, asbestos, silica, pesticides, and electromagnetic fields. Estimated exposure levels for participants were compared between the manual coders and between coders and crosswalks.

Results A moderate to high level of agreement on estimated exposures was observed between the two coders (Cohen's κ = 0.68 or higher). Estimated exposures based on the crosswalks showed a slightly lower agreement with those based on manual coding (Cohen's κ = 0.55 or higher).

Conclusions Results of this study indicate that using crosswalks to recode occupational codes to the necessary occupational classification results only in a limited loss in agreement of assigned exposures as compared to manual coding. Therefore, crosswalks could be an efficient alternative to coding directly from questionnaires.