Supplemental Digital Content 1. Occupational coding of job titles

In the questionnaire, the subjects were asked to report in free text every occupation (job title) ever held for six months or more during their working life, and to note the start and end year for each occupation. Job titles were manually transcribed according to the Nordic Classification of Occupations from 1983 (NYK) used in the Swedish census in 1985. The NYK was originally based on the International Standard Classification of Occupations ISCO-58.

First, the job titles were tabulated such that instances of the same type and the same job title occurred only once. Approximately 11,000 instances were found. Then, each instance was manually coded according to 5-digit NYK codes. Two research assistants and one occupational hygienist performed most of the coding in collaboration with the first author. The coders were each responsible for their own sets of job titles. A team of researchers experienced in occupational coding assisted the group. Job titles that did not match an NYK code were discussed until a unanimous decision was reached. These instances were logged and used as reference for the continued coding. Almost 300 instances were discussed in the group. About 1000 instances included two or more job titles instead of only one. If there was no information on primary job title, only the first title was coded. The job task, job content, or job description was primary when determining an NYK code. However, when different NYK codes were equally plausible (n 40 instances, <1%), noise exposure was taken into consideration. In these cases, the NYK code with the highest exposure was chosen. If the job title data were insufficient to assign an NYK code, additional data on reported business trade for the reported occupation were accessed from the raw data. About 350 individual cases were coded using these additional data. If job titles could still not be coded due to lack of details regarding job description, job content, or business trade, the code 999.99 was used. These instances were later on treated as missing in the analysis due to missing exposure classification. Before assigning noise exposure
levels using the JEM, each 5-digit NYK code was converted to the 3-digit NYK code representing job families in the JEM.

Consistency between the three main coders was assessed by having them code the same 400 instances. The agreement for the 3-level NYK was highest (80%) between the two assistants who coded 47% and 34% of the entire dataset, respectively, whereas it decreased to just under 70% when agreement was assessed between all three.