MS NOCCA – Nordic Occupational Cancer Collaboration

OCCUPATIONAL VARIATION IN CANCER INCIDENCE: A 45 YEAR FOLLOW-UP OF FIVE WHOLE-POPULATION COHORTS IN THE NORDIC COUNTRIES

Eero Pukkala,1 Jan Ivar Martinsen,2 Elisabete Weiderpass,9 Pär Sparén,3 Holmfridur Gunnarsdottir,4 Laufey Tryggvadottir,5 Elsebeth Lynge,6 Kristina Kjærheim2 1Finnish Cancer Registry, Helsinki, Finland; 2Cancer Registry of Norway, Oslo, Norway; 3Karolinska Institute, Stockholm, Sweden; 4University of Iceland, Reykjavik, Iceland; 5Icelandic Cancer Registry, Reykjavik, Iceland; 6University of Copenhagen, Copenhagen, Denmark

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Methods The observed number of cancer cases in 70 diagnostic categories in each occupation was compared with the expected number calculated from the respective incidence rates for the national population. The result was presented as a standardised incidence ratio, SIR, defined as the observed number of cases divided by the expected number.

Results For all cancers combined, there was a wide variation among men from an SIR of 0.79 (95% CI 0.66 to 0.95)
in domestic assistants to 1.48 (1.43 to 1.54) in waiters. The occupations with the highest SIRs also included workers producing beverage and tobacco, seamen and chimney sweeps. Among women, the SIRs varied from 0.58 (0.37 to 0.87) in seafarers to 1.27 (1.19 to 1.35) in tobacco workers. Low SIRs were found for farmers, gardeners and forestry workers in both genders. The variation in relative risk across occupational categories varied considerably between cancer types. For mesothelioma, there was a 20-fold variation in risk among plumbers as compared to farmers, while the variation between the lowest and highest occupation-specific incidence of cancers of colon or brain was not even twofold.

Conclusions The present study shows that the risk of cancer is highly dependent on the person’s occupation, reflecting the position in the society.