pressure 15 hours after work was 120.3 (11.7)/77.0 (7.5) [mmHg]; mean FeNO 19.0 ppb (7.6). Mean blood levels of C reactive protein and IL-8 were 2.5 μg/ml (3.7) and 12.2 pg/ml (3.8) respectively.

Conclusions Our database serves as a basis to investigate short-term health effects using mixed effect regression models. We hypothesise to find particle related changes in heart rate variability and inflammation markers and we will investigate combined health effects of particles and noise. The variable exposure and the low association between particles and noise are a good opportunity to study health outcomes related to these two exposure types in the near-road environment.

This abstract does not necessarily represent US EPA policy.

EXPOSURE ASSESSMENT FOR A CANADIAN CENSUS COHORT STUDY OF NIGHT SHIFT WORK AND CANCER RISKS

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Objectives Shift work has been categorised as a probable human carcinogen by the International Agency for Research on Cancer. This is an exposure assessment for a study of shift work and cancer in a cohort created by linkage of the Canadian national cancer registry and the 1991 long form census, which recorded occupation and industry of employment for 2.1 million Canadians, but did not query specific exposures. We used a contemporary (1993) survey to characterise shift work exposures by occupation, industry, and sex.

Methods Analyses were conducted on the 1993 Survey of Labour and Income Dynamics (SLID) to determine the prevalence of night shift work in the contemporary population, highly exposed industries and occupations and sex differences in shift work prevalence within industries. All analyses were restricted to the employed population and weighted to account for sampling methodology.

Results 17% of employed 1993 SLID respondents were exposed to night shift work, with 5% reporting a regular evening work schedule, 2% a regular night shift and 10% a rotating shift. Night shift work was most common (>65%) in pulp and paper industries, and unclassified police officers; and light duty cleaners. Exposure to shift work was similar in men and women (18% vs 16%), but sex differences were apparent in certain industries. Within protective services (includes police) shift work prevalence was 11% in women and 20% in men while within hospitals prevalence was 37% in women and 29% in men.

Conclusions This exposure assessment for a census cohort has the advantage of drawing from a contemporary population based sample, demonstrating that occupation, industry and sex are important dimensions for a shift work exposure matrix designed for application to a census cohort or other general population sample.

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RISK OF TOTAL AND AGGRESSIVE PROSTATE CANCER AND PESTICIDE USE IN THE AGRICULTURAL HEALTH STUDY

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Objectives The PIPAH Study, a new prospective study of professional pesticide applicators in Great Britain is being established. The objectives of the study will be to monitor the long-term health of these pesticide applicators and to investigate associations between health outcomes and occupational exposure to pesticides.

Methods The 21,000 members of two national registers of professional pesticide applicators will be invited to participate in the study. The schedule of reminders includes apostcard sent to all potential participants shortly after the initial invitation, an article in the trade journal for pesticide applicators, and a full study pack sent to non-responders. Those who agree to participate will complete a general questionnaire covering their work history, previous pesticide usage, personal and family medical history, signs/symptoms of neurological disease, socioeconomic factors, diet and lifestyle. This can be completed using the paper questionnaire sent to them or online. New members of the two registers will be invited to participate in the study in a rolling recruitment programme.