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Objectives: Mesothelioma is a rare neoplasm which is caused by asbestos exposure. South Africa has mined and refined all three types of asbestos since 19th century with the peak of production in 1940–1980s. At present asbestos use and production is banned in South Africa. Trend 1995–2008 in mesothelioma rate was assessed to determine burden of asbestos related deaths due to mesothelioma by year and gender.

Method: Death certificates with underlying cause of death stated as C45 were selected for the study in 1995–2008. For each year of study, age and gender distribution was obtained from the national statistical releases. Mesothelioma rates, 95% confidence interval were calculated for each year and sex, and for age groups and sex. Poisson regression was used to test for trend.

Results: In total 2497 cases were identified of deaths due to mesothelioma, 1919 in men and 578 in women in the study period. There was 3:1 male to female ratio. The trend was stable and consistent over time for both men and women cases. Mortality rate in men was 8–16 per million and in women 2–5 per million.

Conclusions: If mortality rate remains at current estimates we can expect 2134 cases until 2020. However, it is authors opinion that mortality rate is underestimated due to the competing causes of death, and shortened longevity. Just looking at other countries and their diagnosed cases, such as Great Britain, major consumer of asbestos from South Africa, it becomes apparent how little mesothelioma cases are diagnosed in our country.
was relatively low. We recommend expanding the service beyond Maccabi onto other health service organisations.

**0381 ADJUSTMENT FOR MULTIPLE COMPARISONS IN A JOB AND INDUSTRY-TITLE ANALYSIS OF A CASE-CONTROL STUDY OF PROSTATE CANCER**

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10.1136/oemed-2014-102362.352

**Objectives** To evaluate the impacts of empirical Bayes (EB) and semi-Bayes (SB) adjustment to account for multiple testing in a hypothesis-generating study of prostate cancer (PCa) risk by occupation and industry.

**Method** The study population comprises 1937 PCa cases and 1995 population controls aged 40–75 years, all residing in Montreal. Odds ratios (OR) and 95% confidence intervals (CI) of PCa risk for ever employment in an occupation and industry were estimated using unconditional logistic regression models adjusted for age, ancestry, and family history of PCa. EB and SB adjustment was applied to the estimates, with prior variances of 0.15, 0.25 and 0.35 selected for SB. Occupation and industry effects were considered mutually exchangeable, with the risk estimates shrunk towards their respective global mean.

**Results** 5 of the 89 occupations and 3 of the 63 industries had a significantly elevated PCa risk prior to EB/SB adjustment, compared to an expected 2 and 1.5 categories due to random chance. The only positive association remaining significant following EB was for subjects ever employed in government (OR=1.4, 95% CI 1.1–1.5). The remaining elevated PCa risks with SB were found for employment in social service occupations (OR=1.5, 95% CI 1.1–2.0) and for forestry workers (OR=1.7, 95% CI 1.1–2.6), in addition to government (OR=1.4, 95% CI 1.1–1.7). The choice of prior variance had a negligible impact on the estimates.

**Conclusions** The use of EB and SB reduced the number of positive associations compared to the unadjusted estimates. The elevated PCa risk observed for employment in government remained consistent across the adjustment approaches.

**0387 SMOKING AND ALLERGIC CONTACT DERMATITIS: CAUSATION OR CORRELATION?**

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10.1136/oemed-2014-102362.353

**Objectives** Contact dermatitis (CD) is the most common occupational skin disease and includes both irritant and allergic forms (ICD and ACD). Smoking has been associated with all of CD, hand eczema and sensitisation in previous studies, but never explored in relation to work-related ACD and ICD specifically. This abstract describes differences in patients who have a work-related diagnosis of ICD, ACD or both ICD and ACD.

**Method** Data from a study of patients with possible work-related skin or respiratory disease were used. Data included demographics, symptoms, smoking history and physician diagnoses. Differences between diagnosis groups (ICD, ACD, both) were investigated using chi square and ANOVA.

**Results** In total 163 subjects were diagnosed with work-related CD. Of these, 44% were female, approximately half (51%) were ever smokers and 30% were atopic; the mean age was 44.9 years. ICD was diagnosed in 57% of subjects, ACD in 43% and both ICD and ACD in 14%. Current smoking was more common among subjects with ACD (40%) and those with both ACD and ICD (35%) compared to those with ICD (17%) (p = 0.02); no difference in pack-years was observed.

**Conclusions** The rate of smoking in this sample was similar to the Canadian population. Age, sex and atopy did not differ between diagnosis groups. Current smokers were more common among those with ACD and those with ACD and ICD. The mechanism by which smoking may be related to the development of allergic skin disease remains unclear (e.g., systemic inflammation, contact, behavioural differences) but deserves further attention.