working population denominator is derived from 2001 Australia Bureau of Statistics census data.

**Results** There were 4773 initial claims and 416 repeat claims for OCD amongst Victorian workers from January 1985-December 2009. The yearly average for initial claims was approximately 9.4 per 100,000 part-time and full-time working Victorians. The mean cost of repeat claims ($7,556) was higher than the mean cost of initial claims ($4,940). These differences between initial and repeat claims are also reflected in the reported days away from work. The mean days away from work for initial claims was 40 and the mean days away from work for repeat claims was 51.

**Conclusions** Victorian workers’ compensation claims data indicate that the cost and impact of contact dermatitis, as measured by days away from work, increases with repeated workers’ compensation claims. Effort needs to be put in place to protect workers from initially developing OCD. For those workers who have developed OCD, a workplace plan needs to be in place for the avoidance or elimination of workplace exposures before the workers return to work.

---

**125 HEALTH RISKS FROM OCCUPATIONAL EXPOSURE TO EXTREMELY LOW FREQUENCY MAGNETIC FIELDS (ELF-MF) AND ELECTRICAL SHOCKS; AN ANALYSIS IN NOCCA**

1S. Slottje, 2A. Kauppinen, 3J. Hogstedt, 4M. Lucas, 5A. Wegman. 1Utrecht University, Utrecht, Nederland; 2Finnish Institute of Occupational Health, Helsinki, Finland; 3Utrecht University/Institute for Risk Assessment Sciences, Utrecht, Nederland; 4Finnish Cancer Registry, Helsinki, Finland

**Objective** Previous epidemiological studies have suggested possible increased health risks of occupational exposure to extremely low frequency magnetic fields (ELF-MF), in particular cancer (brain, leukaemia), neurological diseases (e.g Amyotrophic Lateral Sclerosis, ALS), and suicide. However, results varied strongly. We aim to assess the association between occupational exposure to ELF-MF and electrical shocks and these priority health outcomes in a large population-based cohort. This could help to increase the knowledge on these health effects and potentially disentangle health risks from ELF-MF and electrical shocks, which has been put forward in particular with respect to ALS.

**Methods** Case-control risk analyses will be performed in the established Nordic Occupational Cancer (NOCCA) database. The pooled NOCCA population covers over 15 million adult males and females from five Nordic countries with a follow-up of cancer incidence and mortality up to 45 years in 2006. Considering the size and follow-up time of NOCCA, we aim to also study rare outcomes and occupationally exposed females, which will enrich this field of research. Exposure assessment will be based on individual job histories obtained through repeated census data, which will be linked to job exposure matrices for ELF-MF and electrical shocks.

**Results/Conclusions** Results of the risk analyses will be presented at the conference.

---

**126 THE EPIDEMIC OF CHRONIC KIDNEY DISEASE OF UNCONVENTIONAL ORIGIN IN CENTRAL AMERICA - A CALL FOR TRANSDISCIPLINARY RESEARCH AND ACTION**

1C. I. Wesseling, 2D. Crowe, 3H. Hogstedt, 4M. Lucas, 5A. Jakobsson, 6A. Wegman. 1IRET-Salud, Universidad Nacional (on leave), Heredia, Costa Rica; 2IRET, Universidad Nacional, Heredia, Costa Rica; 3Karolinska Institute, Stockholm, Sweden; 4Department of Public Health and Clinical Medicine, Umeå University, Umeå, Sweden; 5Lund university, Lund, Sweden; 6University of Massachusetts at Lowell, Lowell, United States of America

**Background** Central America has seen a dramatic increase of chronic kidney disease, unexplained by conventional risk factors (CKDu), primarily affecting adult male agricultural labourers. Increases of CKDu are also reported from Sri Lanka and India. Alledged risk factors include environmental toxins. However, observations from Nicaragua and El Salvador indicate that repeated dehydration due to strenuous work in tropical climate may be a major risk factor that urgently needs to be explored using epidemiologic, experimental and interventional approaches. If heat stress and dehydration prove to be risk factors in themselves, or in combination with others, climate change will dramatically increase the population under risk in the near future. CKD increase in developing countries, regardless