cancer (AF=2.0%–5.2%, 460–1180 cases), followed by solar radiation, with 415 skin cancers (AF=1.3%). Workplace exposure to environmental tobacco smoke (ETS) was associated with 5.8% (~60 cases) of lung cancers among never-smoking women, and radon exposure in buildings resulted in almost 80 lung cancers (AF=0.7%). AFs were overall higher for men, but similar between men and women for radon and ETS among never smokers.

Conclusion In burden studies, assessing the impact of uncertainty in exposure and risk estimates is a challenge. The impact is, however, amplified among women because estimates are derived from studies primarily on male workers.

Oral Presentation

Dusts and Fibres

MESOTHELIOMA MORTALITY IN GREAT BRITAIN: AN UPDATED ANALYSIS OF TRENDS BY GEOGRAPHICAL AREA AND OCCUPATION 1981–2014

Kevin Shepherd, Damien McElwenny, Andrew Darnton. Health and Safety Executive, Bootle, UK; Institute of Occupational Medicine, Edinburgh, UK

Background Mesothelioma mortality rates in GB have increased tenfold over the last four decades and are currently the highest of any country worldwide. The mesothelioma register contains all deaths mentioning mesothelioma and includes area of residence and occupation of the deceased.

Aim to update descriptive analyses of mortality trends by geographical area and last occupation of the deceased to provide evidence about past sources of mesothelioma risk in the GB population.

Methods Standardised Mortality Ratios (SMRs) were calculated for local and unitary authority areas; Proportional Mortality Ratios (PMRs) were calculated for categories derived from Standard Occupation Classification coding of job titles from death certificates. Temporal trends in SMRs and PMRs over the period 1981–2014 were examined using Generalised Additive Models (GAMs).

Results The influence of geographically-specific sources of past asbestos exposure is still seen in recent mesothelioma mortality rates; areas with the highest SMRs in males tend to be those known to contain large industrial sites that used asbestos such as shipyards. However, the strong effect of asbestos exposures in jobs associated with construction work – which would have been geographically less heterogeneous – is seen in analyses by occupation, and temporal trends suggest that such exposures continued for longer than those associated with specific locations.

Conclusions these results reflect the legacy of widespread industrial asbestos use in GB and particularly emphasise the effect of exposures within the building industry which are likely to have continued after those in specific industries such as shipbuilding and manufacturing were substantially reduced.

Oral Presentation

Working Conditions

THE POTENTIAL IMPACT OF THREE WORKPLACE ACTIONS ON RETURN TO WORK AFTER A WORK-RELATED MUSCULOSKELETAL OR PSYCHOLOGICAL INJURY

Peter Smith*, Malcolm Sim, Anthony LaMontagne, Rebecca Lilley, Sheilah Hogg-Johnson. Institute for Work and Health, Toronto, Ontario, Canada; Monash University, Melbourne, Victoria, Australia; Deakin University, Melbourne, Victoria, Australia; University of Otago, Otago, New Zealand

The objective of this study was to examine the impact of three workplace actions on return to work (RTW) following a musculoskeletal (MSK) or psychological injury. The three workplace actions were: a positive supervisor or co-worker response at the time of injury; a low stress interaction with the workplace RTW coordinator; and an offer of modified duties. We used a longitudinal cohort of 869 Victorian workers’ compensation claimants.

Respondents were interviewed at baseline (approximately 4 months after injury), and again 6 and 12 months later. Our analytical sample was 703 respondents who had complete information on all workplace factors and potential covariates. Of our sample, 40% of respondents reported all three positive workplace actions and 12% reported none of the positive actions. Using a potential outcomes modelling approach, we estimated difference in RTW rates at baseline, 6 months and 12 months if all respondents received all positive actions, versus all respondents received no positive actions. Inverse probability weights were used to balance the sample in relation to covariates including respondent age, sex, injury time, time since injury, workplace size, pre-injury job autonomy and pre-injury physical demands at work. At baseline, if all respondents received all three workplace actions, 51% of respondents would have sustained RTW compared to 22% if all respondents received none of the actions. At 6 months the comparable rates were 73% versus 46%, and 67% versus 50% at 12 months. Our study demonstrates the importance of the workplace actions on RTW rates at multiple points following injury.