

Lisa Bradshaw¹, Jade Sumner¹, Paul K. Henneberger², David Fishwick¹

¹**Centre for Workplace Health, Science Directorate, Hse, Buxton/United Kingdom, ²Division of Respiratory Disease Studies, Cdc National Institute for Occupational Safety and Health (Niosh), Morgantown/WV/United States of America**

Rationale: Work aggravated asthma (WAA) is defined as pre-existing or concurrent asthma that is worsened by workplace conditions; this includes workers previously diagnosed with occupational asthma who have moved to a new workplace where current irritant exposures may aggravate their asthma. The aim of this study was to estimate the prevalence and characteristics of WAA in the UK. **Methods:** A postal questionnaire was used to collect cross-sectional data from individuals aged >18 years old with a diagnosis of asthma. Study participants were recruited from 3 sources; primary care (n=1400); secondary care (n=151) and third sector sources (n=79). 1630 postal questionnaires were sent to potential subjects. Non-responders were sent a reminder letter and further questionnaire 4 weeks after the original mail out. Workers were asked whether their asthma was the same better or worse at work; WAA was determined if individuals stated worse. Data analyses were conducted using SPSS for windows. **Results:** There was a 14% response rate (n=234). 66% were female, 9% were current smokers, 69% were currently employed and 96% had a diagnosis of asthma. Of the 136 respondents with a diagnosis of asthma and current employment, the prevalence of WAA symptoms was 34%. Comparing those with and without WAA symptoms 83% vs 18% used more asthma medication on work days; 62% vs 46% were exposed to fumes, gases and dusts at work; 37% vs 12% had left a previous job because of breathing problems and 91% vs 70% felt stressed at work. 65% vs 31% were on step 3-5 of the BTS Guidelines. Wellbeing at work was measured using a 10-point Likert scale, and there was a high incidence of poor wellbeing in the WAA group (wellbeing score <=6) with 68% vs 42% in the non-WAA group. Those with WAA symptoms had higher levels of presenteeism than those without (presenteeism being the practice of coming to work despite illness, often resulting in reduced productivity). **Conclusion:** The prevalence of WAA in this first UK based study was higher than the previous estimate of 21.5% reported by Henneberger (2011), but was in the range described in a recent review of 12 WAA studies of between 13% and 58% (Fishwick, 2014). The low response rate of 14% is a limitation to this study, however, WAA in the UK appears to be common and associated with reduced work productivity and requires further work to develop appropriate interventions designed to reduce its impact.