Work-related respiratory symptoms among mushroom workers in Ireland

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ABSTRACT

Work related respiratory conditions such as asthma, bronchitis, hypersensitivity pneumonitis and upper airways syndrome have variously been ascribed to working in the mushroom industry. A cross sectional study was carried out over a four week period of respiratory symptoms among 191 mushroom workers divided into 4 categories of exposure. Category 1 were farm workers predominantly pickers; category 2 were compost workers, category 3 were laboratory and administration and category 4 were in packaging. A self administered work related respiratory questionnaire was completed and spirometry was performed. The population was predominantly from Eastern Europe (n=116, Lithuania, Latvia and Poland). There were 115 (60%) female and 77 workers were under 30 years old. The prevalence of smoking was high (>40%) in category 1 & 4 (national average 27%). We found a high prevalence of respiratory symptoms among mushroom workers particularly in category 1. We found no relationship between the prevalence of respiratory symptoms and age, gender, pack years of smoking or duration of employment. Spirometry readings across all groups were within normal values. There was a significant improvement in respiratory symptoms in workers during absence from the workplace (p<0.001). There was an overall high rate of upper respiratory symptoms which were also work related. Aggregated symptom scores were calculated to increase specificity for a given respiratory condition. There were n=7 with asthma score ≥8-11(Max 11), n= 6 with bronchitis score ≥6-8 (max 8), n=9 with HP score ≥7-10 (max 10). There were 61 workers who answered yes to 2 questions on upper airway symptoms. In conclusion, there is a high prevalence of respiratory symptoms among mushroom workers, particularly category 1 workers. This requires further investigation and assessment.