

European Respiratory Society Annual Congress 2012

Abstract Number: 498

Publication Number: P4000

Abstract Group: 6.2. Occupational and Environmental Health

Keyword 1: Air pollution **Keyword 2:** Occupation **Keyword 3:** Allergy

Title: Respiratory symptoms and lung function parameters in workers exposed to wood smoke and cooking oil fumes in Nigeria

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Body: Introduction: Exposures to wood smoke and oil fumes occurs in both home and industrial setting and is associated with occurrence of both respiratory and non respiratory diseases. Mai suya is a common job in most northern Nigeria. Our aim is to study the prevalence and respiratory function parameters among this group. Method: This is a community, and case controlled study involving mai suya and workers who are not exposed to wood smoke and oil fumes in an occupational setting. Both groups underwent an interviewer administered questionnaire followed by on spot spirometric test. Chi square was used to test for association between respiratory symptoms and the job categories. Odd ratios were determined for the risk of respiratory symptoms and exposure to wood smoke and oil fumes. Result: Both groups are similar in their demographic characters except in their smoking status. The test group had significantly increased occurrence of respiratory symptoms compared with the control group, p value <0.05. The most common respiratory symptoms was cough; present in 23 (48%) of the test group and 7 (22%) of the control group. Among non smokers OR for dyspnea and wheeze was 3.1 CI (0.1-5.08), p value =0.04 and 1.2, CI (0.4-1.3), p value =0.04 respectively. The mean FEV1, FEV1 (predicted), FVC (predicted) were significantly lower among the test group compared with the control group among all respondents. Conclusion: Workers exposed to wood smoke and oil fumes have increased risk of respiratory symptoms and altered pulmonary functions.