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HEALTH RISKS ASSOCIATED WITH HUMAN EXPOSURE TO WOOD DUST IN SOME NIGERIAN SAW-MILLS

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ABSTRACT

Assessment of physical health status of wood workers in 7 saw-mills were conducted via questionnaire. Microbiological analysis of air-borne dust and settled sawdust in the sawmill environments were investigated as possible predisposing factor to ill health. A total of 258 saw mill workers and 63 controls with mean age 32.26"8.73 years (mean "S.D) and 32.24"10.04 years respectively were interviewed via questionnaire. A significant difference in average symptoms of ill-health between saw mill workers and control ($P<0.001$) also a significant difference between male and female saw mill workers ($P<0.01$) were observed. Respiratory symptoms:cough, tightness of chest and shortness of breath were positively correlated with the age of sawmill workers. A significant difference in the respiratory symptoms between tobacco smoking and non-tobacco smoking saw mill workers ($P<0.005$) was observed. The pathogenic bacteria isolated from the sawmill environments included *Staphylococcus* aureus, *Pseudomonas aeruginosa*, *Clostridium* sp, *Bacillus* cergueus, *Bacillus* sp, *Proteus mirabilis*. Fungi isolated included *Aspergillus, fumigatus* Mucor sp, and *Pennicllium sp.* The high frequency of symptoms of ill health reported among saw mill workers in this study could have a direct relationship with the pathogenic micro organisms isolated and some other physical and chemical substances that are usually associated with wood dust.

Keywords: Bacteria, exposure, fungi, health risk, sawmills, wood dust.