

Particulate Pollution and Its Effect on Respiratory Symptoms of Exposed Personnel's in Three Heavy Traffic Cities (Roads), Kathmandu, Nepal

Authors : Sujen Man Shrestha, Kanchan Thapa, Tista Prasai Joshi

Abstract : Background: The present study was carried out to determine suspended particles and respirable particles of diameter less than 1 micrometers (PM1) on road side and some distance of outside from road; and to compare the respiratory symptoms between traffic police men and shop keepers directly 'exposed' to traffic fumes and office worker stay in 'protected' enclosed environment. Methods: Semi structured questionnaire was used to collect the data among case and control after getting verbal informed consent among the convenience sample of traffic police, shopkeepers and officials in three different locations in Kathmandu. Secondary data analysis of hospital data of three hospitals of Kathmandu was also performed. The data on air Particulate Matter was taken by Haz Dust. Results: The result showed air quality of road side traffic is unhealthy and there was increasing trends of respiratory illness in hospital outpatient department (OPD). The people who were exposed found to have more risk of developing respiratory diseases symptoms. Conclusions: The study concluded that air pollution level is strong contributing factor for respiratory diseases and further recommended strong, epidemiological studies with larger sample size, less bias, and also measuring other significant physical and chemicals parameters of air pollution.

Keywords : heavy traffic cities, Kathmandu, particulate pollution, respiratory symptoms

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