Title: COPD – Prevalence and risk study from rural north India

Dr. Mukhmohit 16392 Singh mukhmohit5@yahoo.com MD ¹, Prof. Dr Anup K. 16393 Mukherjee akm21leo@rediffmail.com MD ¹, Prof. Dr Surendra K. 16394 Ahluwalia ahluwalia.surendra@gmail.com MD ¹, Dr. Anu 16395 Bhardwaj dranubhardwaj@yahoo.com MD ¹ and Dr. Shveta 16396 Saini shveta.saini@gmail.com MD ¹. ¹ Community Medicine, MMIMSR, Mullana, Haryana, India.

Body: BACKGROUND: The increasing impact of Chronic Obstructive Pulmonary Disease (COPD) on health care resources is now being recognized as a major public health problem and is projected to be the third leading cause of death worldwide by 2020. AIMS and OBJECTIVES: To estimate the prevalence and assess the risk factors for COPD in adults using spirometry (GOLD criteria). METHODS: A community-based, cross sectional, multiphasic survey was conducted on 2112 adults, age >35 years. COPD was diagnosed using fixed ratio post bronchodilator FEV1/FVC<70% on spirometric evaluation conducted on participants who screened positive using clinical (by validated respiratory questionnaire) or PEF criteria. RESULTS: The overall prevalence of COPD was 8% (10.8% in males and 5.1% in females). The prevalence of COPD was 15.3% in the ever smokers and were at 3.54 times higher risk (95% CI 2.6-4.9) compared to non smokers. The exposure to high risk occupation showed an increased risk for development of COPD [OR 3.983, 95% CI 2.87-5.52] than the non exposed individuals. Among females, the prevalence was highest for the heavy kitchen smoke exposure (8.2%). On logistic regression the factors related with COPD were age >65 years [OR 1.079 95% CI 1.064-1.095], exposure to high risk occupation [OR 2.395 95% CI 1.485-3.861] and smoking [OR 2.263 95% CI 1.467–3.492]. Other factors as exposure to passive tobacco smoke, education, socio economic status did play a role independently, however no significant higher risk was observed using multivariate statistical model. CONCLUSION: Ageing, smoking, occupation and biomass smoke exposure certainly explain the web of causation on the background of other risk factors as passive smoking, education and socioeconomic status.