SEASONAL VARIATION OF LUNG FUNCTION AMONG COFFEE WORKERS EXPOSED TO BIO-AEROSOLS IN TANZANIA

1G Sakwari, 2S Mamuya, 3V Ngowi, 4M Bratveit, 5B Moen. 1Muhimbili university of Health and Allied Sciences, Environmental and Occupational Health, Dar es Salaam Tanzania; 2University of Bergen, Department of Global Public Health and Primary Care, Bergen, Norway

Introduction Exposure to organic dust may lead to decrease in lung function among healthy subjects or development of respiratory symptoms. Studies done among coffee workers reported significant exposure to endotoxins with no evidence of decrease in lung function. The current study aimed at determining seasonal variation of lung function among coffee workers due to endotoxin exposure.

Methods The study was done in coffee factory where 30 workers were monitored for one season of coffee processing that is from June 2016 to February 2017. Lung function tests were performed once in the morning on any day before the season, then on Monday morning and Friday evening at mid-season and end of the season. A portable spirometer WinspiroLIGHT was used. ATS/ERS guidelines were followed. All measurements were taken in standing position. Data was analysed by paired-sample T-test. Smoking and age used to adjust lung function change in linear regression.

Results The mean age of participants was 38 (8.4) and mean time of working in coffee factories was 10 (6.8) years. There was a significant decrease of 0.24 and 20 mls for FEV1 and FVC, the change being high in the mid-season compared to end season. Improved in FEV1 (3.29 l/s – 3.65 l/s) at the beginning of season to mid-season was observed.

Discussion Lung function decrease is observed along the season with higher decrease at the end of season. The slight increase in FEV1 between beginning of season and mid-season could be due to cessation of exposure.

Rural Health: Agriculture, Pesticides and Organic Dusts

SAFETY CULTURE AND RISK MANAGEMENT IN AGRICULTURE (SACURIMA)

1John Mc Namara, 1Jarkko Leppälä, 1Gert van der Laan, 2Claudio Colosio, 4Martina Jakob, 2Stephan Vander Broucke, 3Eda Merišaku, 6Anne Marie Heiberg, 1Dilek Öztaş, 2Burak Kurt, 3Ayşegül Koç, 4Muhsin Akbaba, 5Huseyin Iter. 1Department of Public Health, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey; 2Department of Public Health, Çukurova University School of Medicine, Adana, Turkey; 3Department of Internal Medicine Nursing, Yıldırım Beyazıt University Faculty of Health Sciences, Ankara, Turkey; 4Public Health General Directorate of Turkish Republic, Ankara, Turkey

Introduction There are concerns about safety culture and health effects of pesticides in agricultural workers in the Adana Province of Turkey. The aim of this study is to evaluate knowledge level of farmers in the Çukurova region on the health effects of pesticides, use of protective equipment as well as assessment of attitudes and practices about the use of pesticides.

Methods A total of 420 seasonal agricultural workers in Karağaz District of the Province of Adana Turkey were included in the study. The questionnaire was administered using face-to-face interview method.

Results The mean age of the participants was 40.2±10.6 years, engaged in farming for a mean duration of 18.5±10.6 years. All were applying pesticides, but none had been trained in the safe use of pesticides. Concerning working practices and health aspects:

- 26.2% stored pesticides in a secured depot.
- 4.3% took empty pesticide containers to special collection bins or centers.
- 84.0% thought that pesticides could have a negative impact on human health.
- 5.0% experienced a medical problem after application of pesticides.
- 1.0% reported acute poisoning after applying pesticides.

Discussion The knowledge level of agricultural workers about safe use of pesticides in this study population is very poor. This lack of knowledge adversely affects occupational health and safety. Appropriate training programs will be organized to increase their level of knowledge.