

FACTORS OF WORK ENVIRONMENT AND HEALTH STATUS OF WORKERS IN CONDITION OF PLASTIC INDUSTRY OF SLOVAK REPUBLIC

Kolena Branislav¹, Pilka Tomáš¹, Pucherová Zuzana², Vanková Viera², Petluš Peter², Rózová Zdenka², Jenisová Zita³, Petrovičová Ida¹

¹Constantine the Philosopher University in Nitra, Faculty of Natural Sciences, Department of Zoology and Anthropology, ²Department of Ecology and Environmentalistics, ³Department of Chemistry

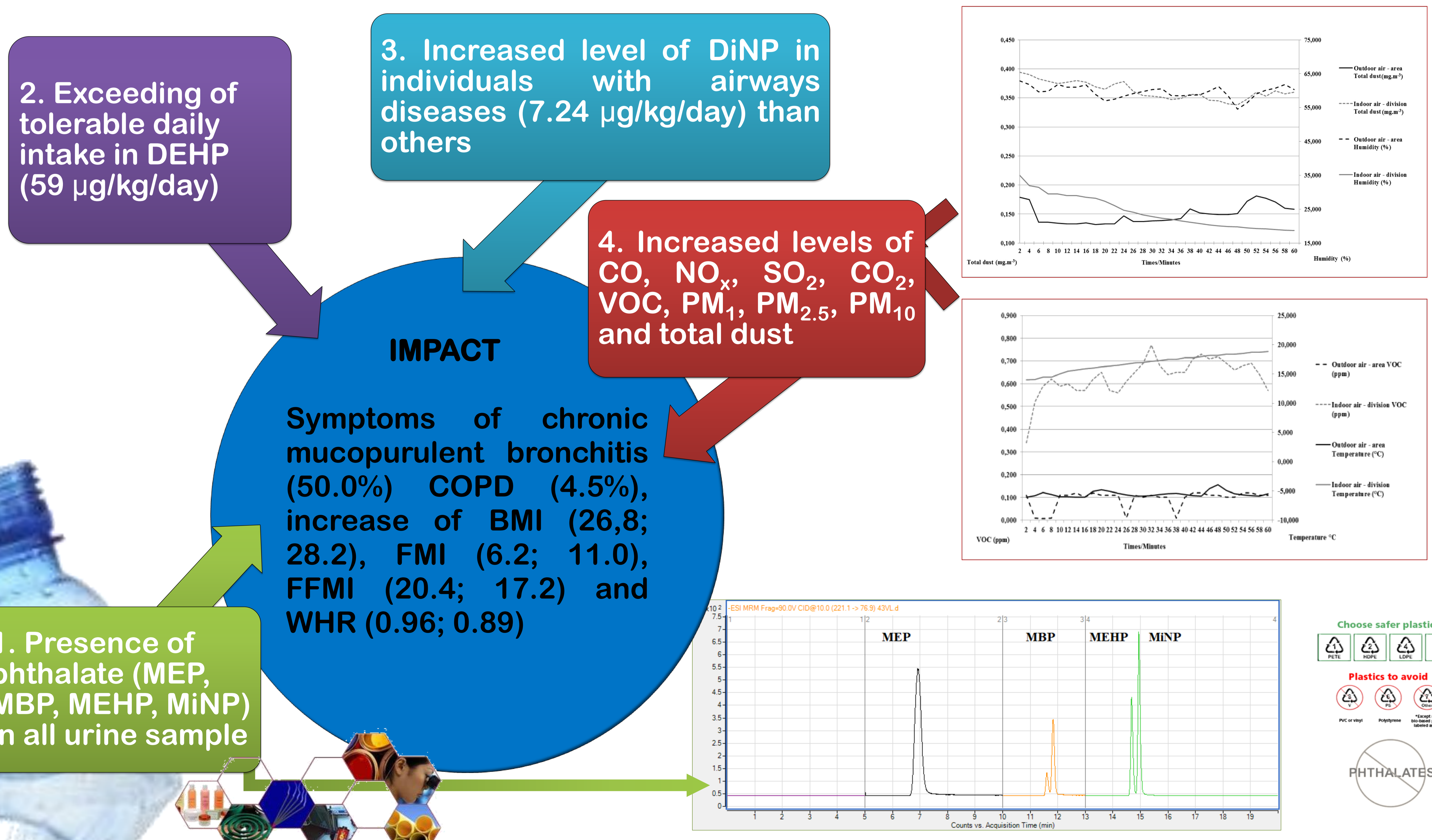
Introduction

Some work environments can greatly affect human health especially in cases where workers are exposed to both detrimental conditions and noxious agents in the workplace and also harmful environmental and lifestyle factors. Because of the potential human toxicities of phthalates there was realized a cohort study in environmentally exposed group of individuals in plastic industry.

Methods

AQM60 Environmental Station, DustTrak DRX8533 and VaisalaWXT520 was used for the air quality detection. Urine were collected from 22 individuals and analyzed for parent phthalate compounds as well as phthalate metabolites using high performance liquid chromatography-tandem mass spectrometry. Personal questionnaire, spirometry and anthropometry were examined by standard methods.

Results



Conclusions: Unsatisfactory working conditions (combination of higher temperature, low relative humidity, presence of phthalates) may have a negative impact on human health. We suppose on potential effect of phthalate exposure (part of the worker's regular job duties) as a causative factor for presence of airways diseases.