

# **POTENTIAL EXPOSURE ASSOCIATED WITH AIR POLLUTION FOR SHOE-STALL WORKERS NEAR BUSY ROAD**

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Workers who work at indoor and outdoor environments near busy road are suspected to be exposed to high-elevated air pollutants levels during working hours. This study evaluated potential exposure associated with air pollutants for workers (polishers and repairmen) of shoe-stalls during working hours. Since shoe-stalls have particularly been located near busy road in Seoul, Korea, workers might be high exposure to air pollutants from traffic exhausts as well as indoor sources of shoe-stall such as dust on the shoe, portable gas range (butane gas), organic solvents, adhesive and shoe polish. In this study, we measured the RSP (respirable suspended particles), NO<sub>2</sub> (nitrogen dioxide) and VOCs (benzene, toluene, xylene) in indoor and outdoor of shoe-stalls simultaneously. The measurements of indoor NO<sub>2</sub>, RSP and VOCs levels in shoe-stalls might be useful to detect higher workers' exposures. The very important role of inflow from the outdoor air of vehicle exhaust can be identified by simultaneous measurements indoor and outdoors using relationships between measured concentrations. Unlike NO<sub>2</sub> and RSP, indoor VOCs concentrations of shoe-stalls could mainly be from indoor sources such as polish and organic solvents rather than outdoor source such as vehicle emission.