meanwhile, governmental efforts to further reduce air pollution should continue.

P-200 'IMPAIRED KIDNEY FUNCTION DUE TO LEAD EXPOSURE AMONG MEXICAN CRAFTWORKERS'

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Objective Approximately 12.4% of the Mexican population is affected by chronic kidney disease (CKD). Leading risk factors for CKD are diabetes, hypertension, obesity and hypercholesterolemia. Other factors, including heavy metals and pesticides, are associated with decreased kidney function even at low exposure levels. Lead exposure in Mexico remains a public health problem and its effects on renal function remains unclear. The aim of the study was to determine the role of lead exposure on kidney function among Mexican craftworkers.

Methods A cross-sectional study was performed on 399 craftworkers and/or users of lead-glazed pottery. We obtained socio-occupational data and calculated creatinine clearance and glomerular filtration rate (GFR). A complete blood count, blood lead (BPb) and biochemical profile tests were performed. A multiple linear regression model was constructed to analyze GFR determinants.

Results 48.37% (193) of the participants were men. The mean age was 44.34 ± 14.54 [17–84] years old. GFR: 104.07 mL/min/1.73 m2 ± 14.42 [61.9, 144.2], BPb: 17.57 □g/dl ± 14.68 [-2, 109], cholesterol: 181.38 mg/dL ± 38.05 [87, 411], systolic blood pressure (SBP): 122.42 mmHg ± 14.75 [89, 189]. CKD was present in 6.03% (24) of the population. The model explained 56.17% of GFR variability. The main determinants were: BPb β = 0.125 [0.055, 0.196]; age β = -0.675 [-0.751, -0.598]; males β = -3.393 [-5.458, -1.328]; CKD β = -4.825 [-9.165, -0.486]; cholesterol β = -0.033 [-0.060, -0.006] and SBP β = -0.069 [-0.147, -0.007].

Conclusions The Mexican population is exposed to multiple nephrotoxic risk factors, including pesticides and heavy metals. The results suggest that the increase in GFR is probably an early sign of kidney dysfunction due to lead exposure.

P-201 'OCCUPATIONAL NOISE, ORGANIC SOLVENTS AND LEAD EXPOSURE, AND ITS ASSOCIATION WITH HEARING LOSS AMONG PRINTING WORKERS IN MEXICO'

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Objective Noise has been considered as the main risk factor for occupational hearing loss. In addition, ototoxic substances, such as organic solvents and heavy metals, contribute to this disease. However, conjoint exposures of these risk factors need further attention. Therefore, the aim of the study was to determine if there is an association between hearing thresholds and exposure to organic solvents and lead, alone or in combination with noise, in Mexican workers.

Methods A cross-sectional study was conducted including workers at a printing press in Mexico City exposed to noise and organic solvents (n=279); and workers from Tlaxcala in central Mexico exposed to lead who produce glazed clay pottery at small workshops (n=188). Organic solvents exposure was assessed by questionnaire; noise was measured with a sound level meter. Moreover, lead exposure was defined according to blood lead levels. Individuals were categorized as exposed or non-exposed in both samples. Hearing thresholds were compared across exposure categories. Multiple linear regression models were built to explain changes in hearing thresholds.

Results Exposure to organic solvents >10 years and blood lead levels >30 micrograms per deciliter were associated with worse hearing thresholds. Compared to the non-exposed group, mean hearing thresholds in exposed workers increased as years of exposure to organic solvents increased (≤5 years: 2.7 dB [0.46, 5.01]; >5–10 years: 6.3 dB [3.87, 8.77]; >10 years: 8.2 dB [6.00, 10.4]). The same behavior was observed with increasing blood lead levels, compared to workers with >30 micrograms per deciliter: 3.26 dB [0.09, 6.42]). When analyzed altogether, there was no evidence of interaction between noise, organic solvents and lead on hearing thresholds.

Conclusion Occupational exposure to organic solvents and lead was associated with worse hearing thresholds among workers from different job settings.

P-205 'WHAT ARE THE EFFECT OF WORK-RELATED FACTORS ON THE DECISION TO RETIRE? A SYSTEMATIC REVIEW OF PUBLISHED STUDIES 2000–2017.'

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Introduction Ageing populations in high income countries, have the potential to greatly increase the proportion of retired people in relation to workers. Recent policy changes to extend working lives have focused on increases in state pensions ages. However, work-related factors may also present an opportunity for employers to design effective interventions to delay retirement.

Objectives We conducted a systematic review of published studies that investigated the relationship between work-related factors and the decision to retire.

Methods Studies that investigated retirement after 1st January 2000 at ages 50+ were included, whilst studies investigating intention to retire or transitions to unemployment and/or disability retirement were excluded. Six online databases were searched and results were independently screened against the inclusion criteria by two researchers. Data extraction and risk of bias checked were carried out independently by two researchers. Reference lists of eligible studies were screened for further studies.

Results Searches returned 4,995 references. Results were screened and 30 studies were identified that met inclusion criteria. 28 studies were assessed as low/medium risk of bias, however 19 of the studies had limited generalisability to