**ASSOCIATIONS BETWEEN NEIGHBOURHOOD DISADVANTAGE AND PRESCRIPTION OPIATE INJECTION IN MONTREAL, CANADA**

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**Background:** Prescription opiate injection (POI) has recently emerged as a major public health threat, and is a leading risk factor for hepatitis C infection in Montreal. This study sought to assess the impact of neighbourhood disadvantage on POI.

**Methods**: Participants in a prospective cohort of people who inject drugs residing in Montreal (n=868, 18% female, 75% age<30) were interviewed three to six monthly between 2004 and 2012. A geographic information system was used to determine the prevalence of neighbourhood-level low income relative to cost of living and crime against the person - within 250 metres of participants’ homes. Generalised estimating equations were used to estimate the relationships between neighbourhood factors and POI.

**Results**: Neighbourhood-level crimes against the person (OR:1.31 per two percentage points [pp], 95%CI:1.18-1.46,p-value<0.001) and low income (OR:1.17 per 20pp, 95%CI:1.05-1.33,p-value=0.006) were independently associated with risk of POI after accounting for individual risk-factors (age, recent heroin injecting, crack use, unstable income, public injecting and sharing of auxiliary injecting equipment). The likelihood of POI associated with neighbourhood-level crimes against the person (per 2pp) varied according to age and was greater among participants aged<30 (OR:2.20, 95%CI:1.91-2.56 vs. OR:1.28, 95%CI:1.17-1.40,p-value for heterogeneity=0.011), heroin injectors (OR:2.22, 95%CI:1.98-2.49 vs OR 1.22, 95%CI:1.11-1.33,p-value=0.014), crack users (OR 1.48, 95%CI:1.35-1.61 vs OR 1.29, 95%CI:1.17-1.42,p-value=0.004) , and those reporting syringe sharing (OR 1.62, 95%CI 1.46-1.79 vs. OR 1.33, 95%CI 1.22-1.45, p-value=0.010). The likelihood of POI associated with neighbourhood-level low income varied according to stability of housing and was greater for participants reporting unstable housing (OR:1.25 per 20pp, 95%CI:1.13-1.37 vs. OR:1.02, 95%CI:0.91-1.14,p-value=0.003).

**Conclusion:** Two distinct measures of neighbourhood disadvantage were associated with POI and these associations were exacerbated (modified) by young age, heroin injection, crack use, syringe sharing, and unstable housing. Further research to elucidate the causal pathways underlying the association between neighbourhood disadvantage and POI use is warranted.

**Conflict of interest statement:** The authors do not have any conflicts of interests to report.