Abstracts are limited to 250 words and should describe the purpose of the presentation or poster, as well as its objectives, methods, and conclusions.

**Poster title (max 25 words):** Exploring the appropriateness of different spatial units to study neighbourhoods and smoking in young adults: Extent of variability across increasingly large spatial units

**Keywords (please provide 3 keywords):** smoking, young adults, spatial scales

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**Context and Objectives:**
Current evidence shows that selected neighbourhood characteristics are associated with smoking outcomes. However, limited attention has been devoted to understanding the role of geographic scale in these associations. This study describes the magnitude of variation in smoking outcomes across different spatial areas in Montreal, Canada.

**Methods:**
We used data from the Interdisciplinary Study of Inequalities in Smoking. Between November 2011 and August 2012, a sample of 2,093 residents of the Island of Montreal (56.5% female) aged 18-25 years was recruited through Quebec’s Master List of Health Care Beneficiaries. Participants completed a questionnaire via Internet, mail, phone or in person. Participants’ street addresses were coded and linked to shape files identifying three increasingly large spatial areas: sociological neighbourhoods (n=111), Community Health Center Area (CLSC, n=29), and Health and Social Services Areas (CSSS, n=12). The dependent variable was smoking status at baseline (0=non-smoker, 1=occasional or daily smoker). Logistic multilevel analyses were applied to estimate between area variability.

**Results:** Multilevel analyses revealed significant variability at the largest-level spatial unit, CSSS. Prevalence of smokers ranged from about 9% through 30%, with 22.9% being the median. There was no between-area variability at the CLSC and sociological neighbourhood levels.

**Conclusion:** These findings suggest that there are relevant smoking-related processes at larger spatial unit levels. Further research must be conducted to identify these processes.

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1 Frohlich, K.L. et al. (revise and resubmit). Cohort Profile: The Interdisciplinary Study of Inequalities in Smoking (ISIS). International Journal of Epidemiology