Neighbourhood Structure as an influence on Quality of Life: Explorations

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Research Aims:

While there is an abundance of research reporting a link between physical health and the built environment, less is known about how neighbourhood characteristics affect mental health and quality of life (QOL) (Caron 2011). In 2008, an epidemiological research team at the Douglas Mental Health Institute conducted a longitudinal survey of over 2,000 residents of Southwest Montreal with the goal of better understanding environmental correlates of mental health and QOL (Douglas Institute, 2012). Since the summer of 2011, a team of researchers with the CURA has been exploring this rich dataset to assess how mental health and wellbeing are influenced by a variety of neighbourhood characteristics.

Key Results to Date:

The first phase of analysis consisted of a series of regression analyses between several independent variables and self-reported QOL as measured by the Satisfaction with Life Domains Scale (Caron, Mercier & Tempier, 1997).

Clustering of QOL Assessments in Southwest Montreal

A preliminary cluster analysis on the QOL assessments revealed local clustering, suggesting a potential neighbourhood effect on well-being and justifying further analysis (see figure). Regressions run on individual, built environment and demographic variables revealed that lower individual incomes, proximity to highways and, somewhat surprisingly, proximity to pharmacies, together explain 8.4% of the variability in QOL assessments. Further regressions were performed to test for spatial relationships: the combined explanatory power of the three variables was reduced to only 1.7%.

However, mapping the model strength revealed that the QOL of participants living very close to highways is more heavily influenced by the presence of the highway than for others living further away.

These results point to a relationship between quality of life and neighbourhood factors. What is unclear is the causal direction of this relationship, which warrants additional research using qualitative neighbourhood assessments and in-depth interviews.