

THE IMPACT OF URBAN GREENERY LEVEL ON INDIGENOUS MENTAL HEALTH

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BACKGROUND

We aim to examine the relationship between Greenery & Indigenous identity on Mental Health.

Previous Studies

- Unequal greenery distribution in Canada [1]
- Established correlation between greenery levels and mental health [2]
- Significantly impaired mental health found in indigenous populations [3]
- Nature is central to Indigenous culture [4]

Purpose

- Equitable urban development
- Reduce health inequities
- Strengthen currently minimal Indigenous datasets and research

METHODS

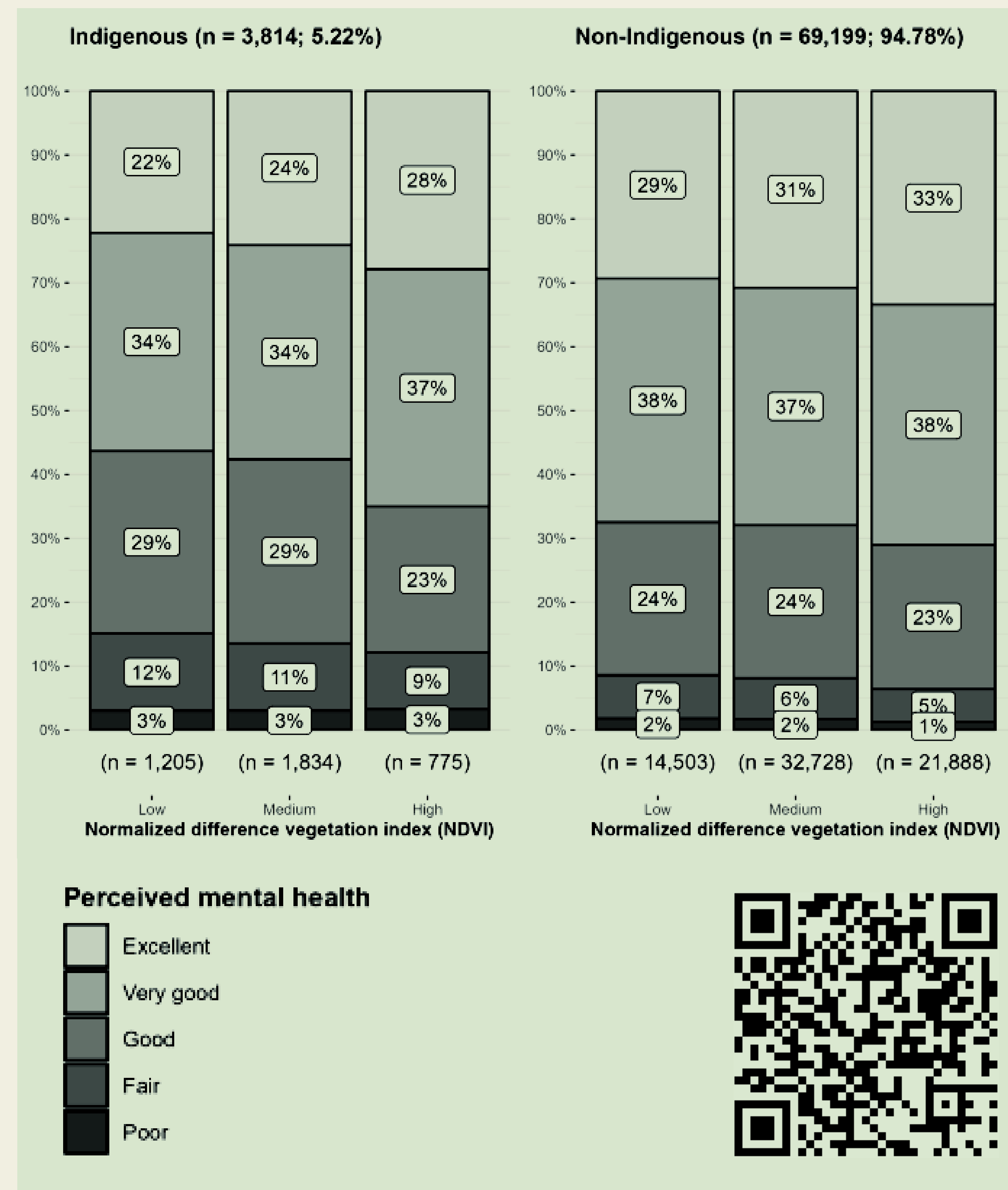
1. Joining Datasets

- Cross-sectional data of 2018:
 - Greenery levels (NDVI) by regions inside of cities across Canada
 - Participants' self-perceived mental health with Indigenous identity

2. Statistical Analysis

- Chi-Square test
 - Demography → Mental health (n=134)
 - Greenery → Mental health (n=195)
 - Interaction Greenery ↔ Demography (n=282)
- Run each test 250x for countrywide coverage → P-value significance analysis

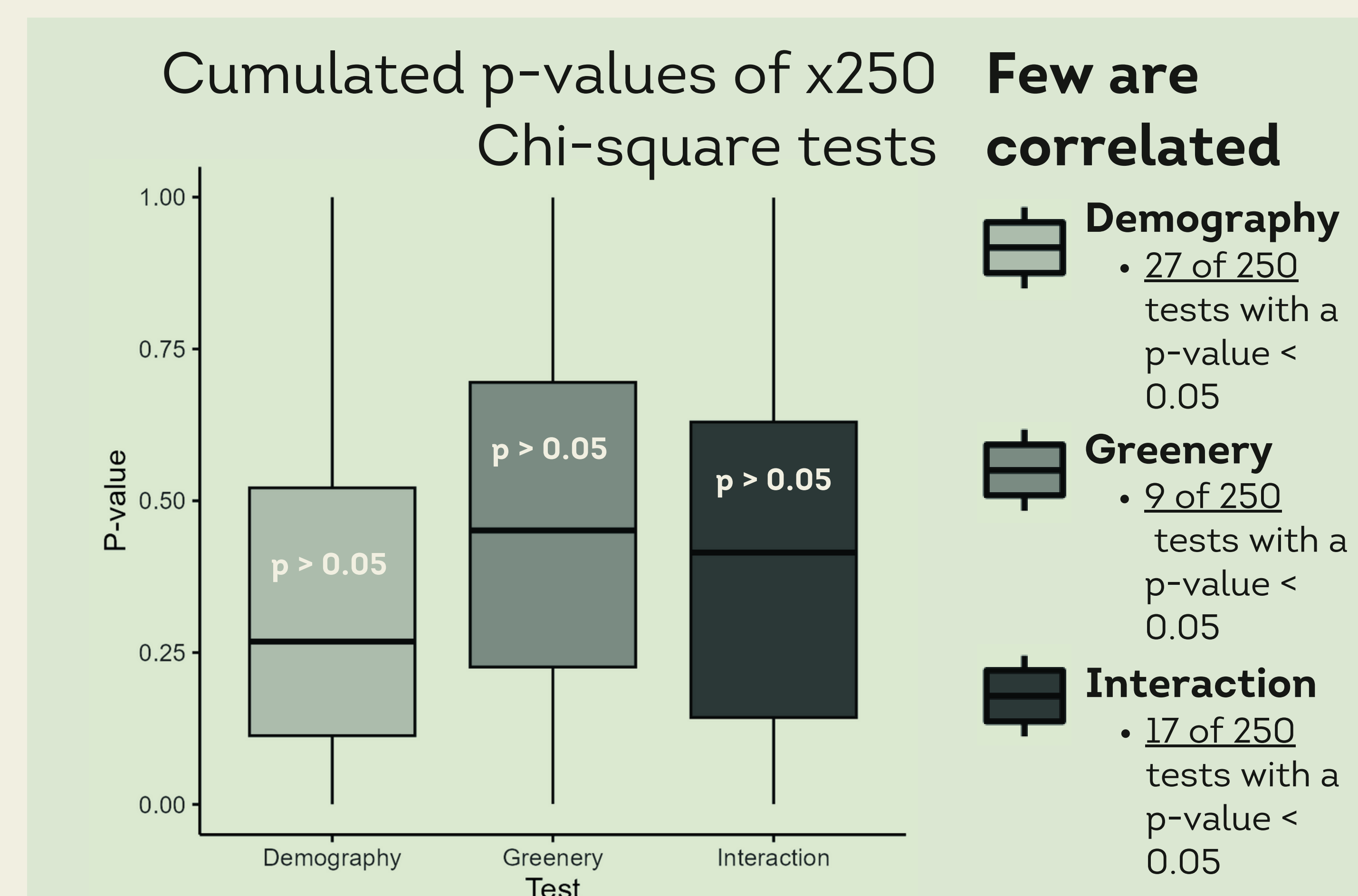
Dataset summary & Online map



RESULTS

NO SIGNIFICANT RESULTS FOR ALL TESTS

Statistical Significance: Chi-Square



DISCUSSION

No significant relationship found between Urban Greenness and Indigenous Identity on Mental Health.

Takeaway

- Few tests were significant → Inconclusive

Limitations

- Imprecision of residential greenness
- Unbalanced data → 5.22% Indigenous
- Self-report biases

Future Impacts

- Additional Urban Greenspaces possibly unimpactful for the improvement of Indigenous health
 - Shift focus to alternatives
- Encourages further research:
 - Addressing limitations
 - Surveys focusing on the Indigenous



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- [1]Government of Canada, S. C. (2021, May 19). Ethnocultural and socioeconomic disparities in exposure to residential greenness within urban Canada. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2021005/article/00001-eng.htm>
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- [3]Logie, C. H., Lys, C. L., Sokolovic, N., Mackay, K. I., Donkers, H., Kanbari, A., Pooyak, S., & Loppie, C. (2021). Contextual factors associated with depression among Northern and Indigenous adolescents in the Northwest Territories, Canada. *Global Mental Health* (Cambridge, England), 8, e22. <https://doi.org/10.1017/gmh.2021.21>
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