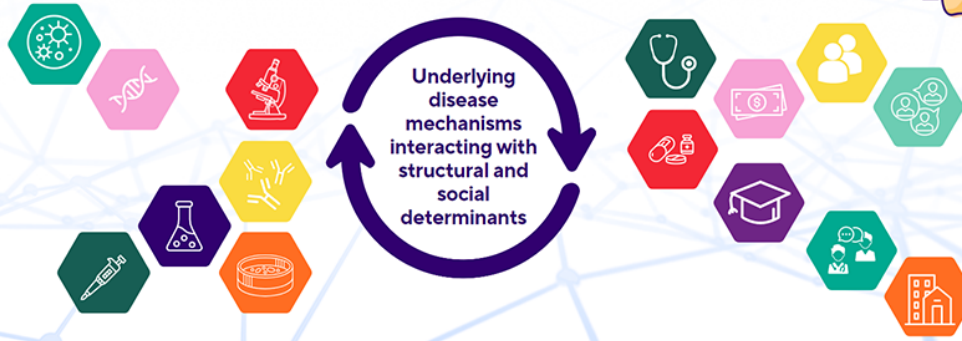




19TH ANNUAL CHILD HEALTH RESEARCH DAYS
Outcomes in Child Health



October 25 + 26, 2023 | RBC Convention Centre, Winnipeg, Manitoba

Abstract Submission Form

CHRD 2023: Abstract Submission Form

Submitter Name

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Presenter Status

Non-Trainee

Research Category

Community Health / Policy

Role in the project

Design
Write Abstract
Coordination

Title

Geospatial distribution and demographics of Winnipeg neighbourhoods stratified by density of cycling infrastructure: A descriptive study

Background

Geospatial data for the density of cycling infrastructure in Canadian cities was made available in 2022 through the Canadian Urban Environmental Health Research Consortium (CANUE) database.

Objective

The aim of this study was to describe the population demographics and neighborhood characteristics associated with the density of cycling infrastructure in Winnipeg.

Methods

We linked data from the 2016 Canadian Census, the CANUE database and open source data from the City of Winnipeg for this study. The main exposure was the density of high-comfort cycling infrastructure in Winnipeg, quantified with the Canadian Bikeway Comfort and Safety (Can-BICS) Index, which provides a weighted index for the number of kilometers of different types of cycling infrastructure. The main outcomes were neighbourhood-level demographics, socioeconomic status, diversity and aspects of the built environment that support physical activity.

Results

Can-BICS data were available for 18,215 neighbourhoods in Winnipeg. Only 3.8% of Winnipeg residents live in a neighborhood that was classified as high cycling infrastructure density. Compared to neighbourhoods with the lowest density of cycling infrastructure (n= 3893), those with the highest density

(826) had 25 times more kilometers of infrastructure ($0.4 \pm 0.8\text{kms}$ vs $12.2 \pm 5.8\text{kms}$). Neighbourhoods with the highest density of cycling infrastructure were younger (43.4 yrs IQR: 37.7-50.0 yrs vs 47.0 yrs IQR: 43.0-51.1 yrs), had less household income (\$47,644 IQR: \$42,107-\$75,467 vs \$85,032 IQR: \$70,878-\$107,996), a higher proportion of people identifying as a visible minority (43.8% IQR: 27.1-48.3% vs 22% IQR: 9.7%-41.7%) and higher walkability (CAN-ALE index: 2.45 IQR: 1.91-3.12 vs 0.10 IQR: -0.19-+0.31).

Conclusion

Neighbourhoods with the greatest cycling density in Winnipeg are characterized by lower socio-economic status, higher population diversity and more access to physical activity. These differences influence the design of epidemiological studies of child health outcomes related to exposure to cycling infrastructure.

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