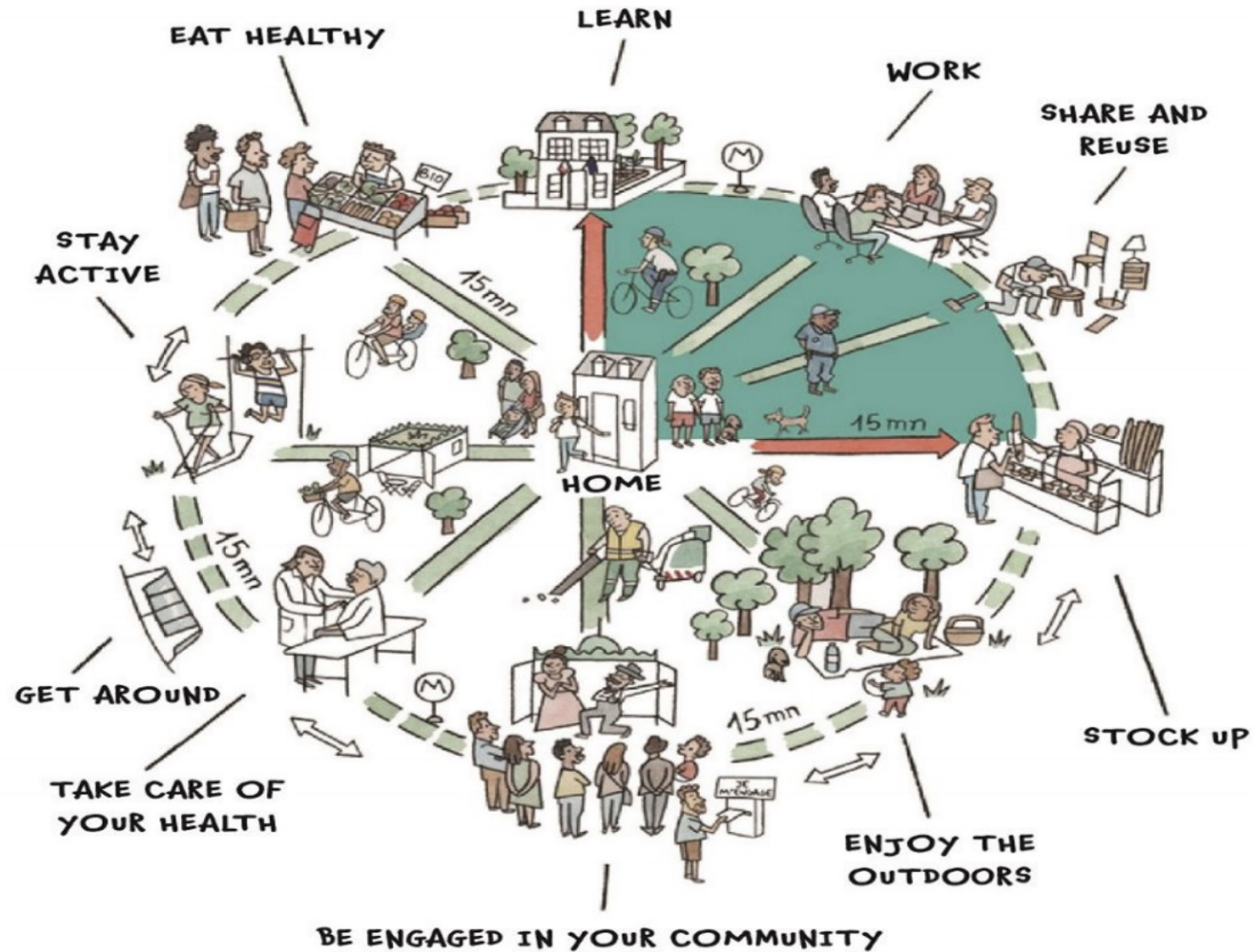


Is the 15-minute City within Reach?

Evaluating Access to Grocery and Produce Stores by Walking and Cycling in Vancouver

Kate Hosford & Jeneva Beirsto
Faculty of Health Sciences, SFU

THE 15-MINUTE PARIS



Research objectives

- To evaluate local access to grocery stores in the City of Vancouver by walking and cycling
- To understand how access to grocery stores varies across the population



Methods

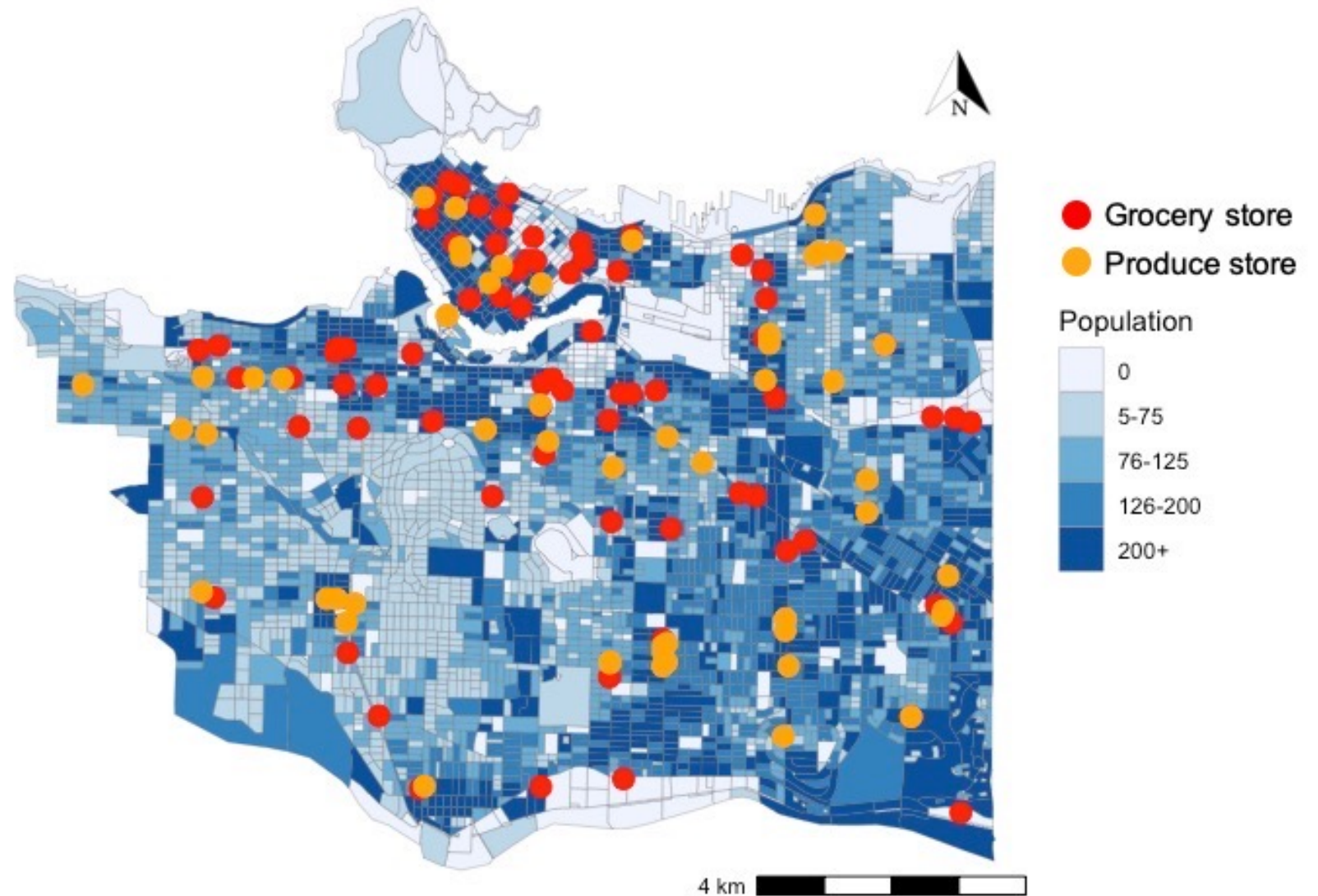
Used r5r to quantify the number of grocery stores reached within a 15-minute walk or cycle from dissemination block centroids



- **r5r**: an open-source R package for calculating travel time on transportation network

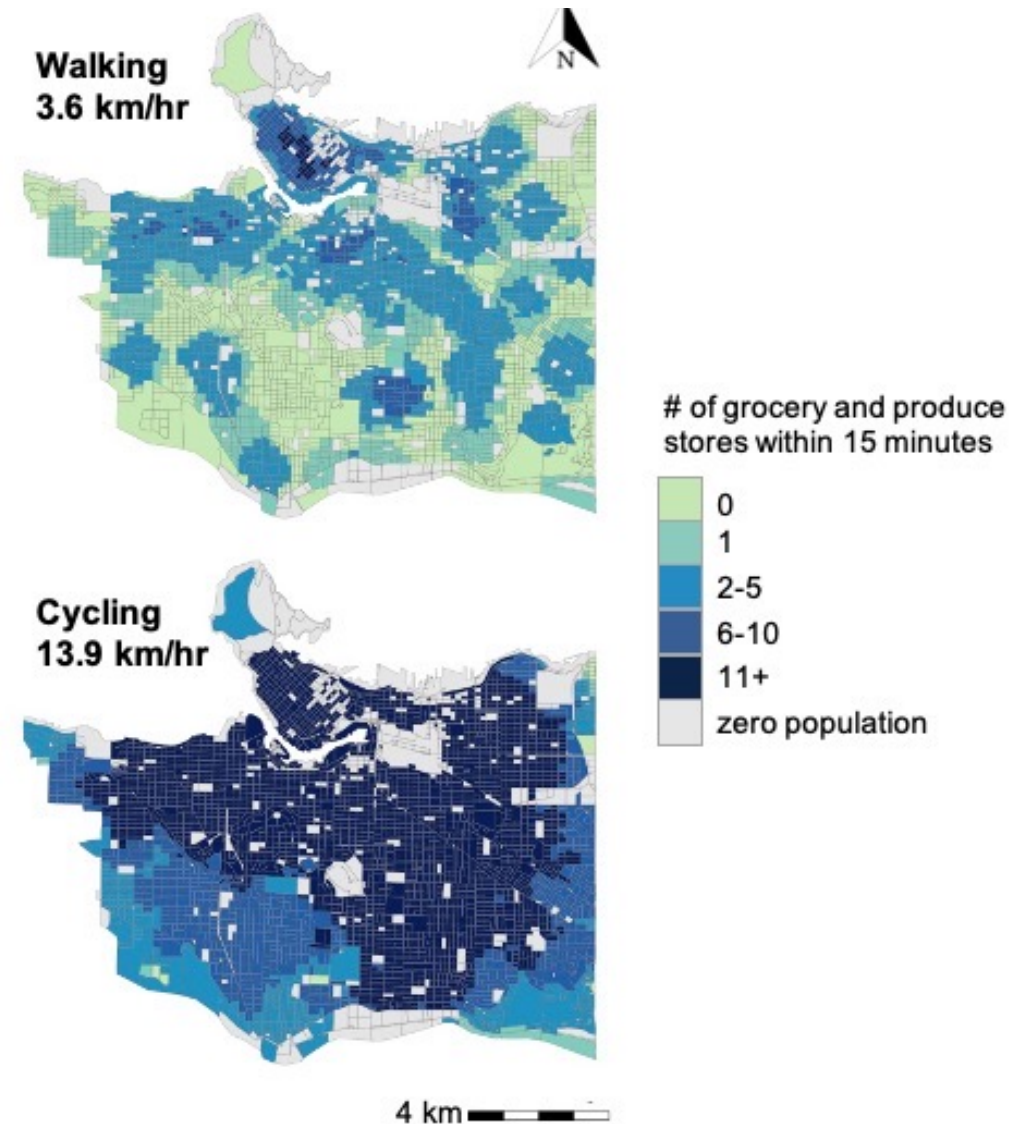
	Data	Source (Year)
Origins	Dissemination block (DB) centroids (n=4041 DBs in Vancouver)	Abacus Data Network, Statistics Canada (2016)
Destinations	Business licenses for grocery stores	City of Vancouver Open Data catalogue (2021)
Transportation network	Pedestrian and cycling street network	OpenStreetMaps (2021)

Grocery stores
tend to be in
areas with higher
population
density



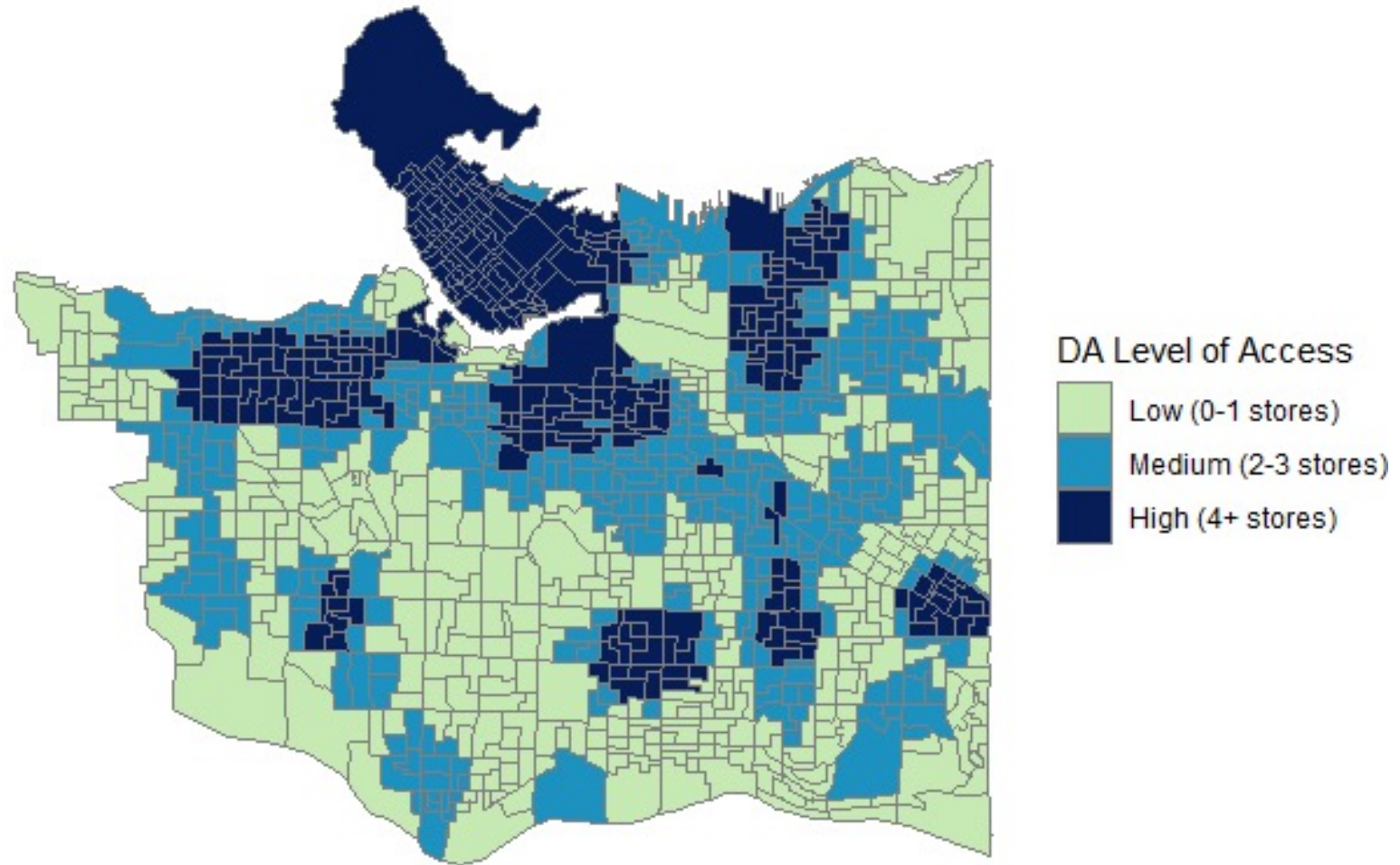
Access to grocery stores by walking and cycling

- **~1 in 5** do not have a grocery store within a 15-minute walk
- **Most residents** live within a 15-minute cycle of a grocery store
- **Lower access** in South Vancouver



Equity in walking access to grocery stores

- **Lower access** to grocery stores in areas with higher proportions of **seniors, children, and visible minorities**
- **Higher access** to grocery stores in **lower income** areas and areas with **higher employment and post-secondary education rates**



Is the 15-minute city within reach in Vancouver?

