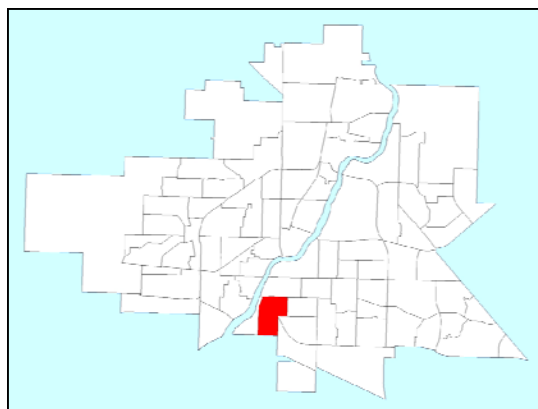


Exhibition



The **Smart Cities, Healthy Kids** research project looks for solutions to childhood obesity by investigating how neighbourhood design affects children's ability to be physically active. Research suggests that safety from traffic and crime, the presence of destinations and built features supporting an active lifestyle (eg. parks, playgrounds, and bike lanes), a neighbourhood's attractiveness, and its accessibility are all very important in determining whether people will be active there. To determine which Saskatoon neighbourhood designs are the most supportive of active living, researchers walked each neighbourhood in Saskatoon in the summer months of 2009/2010, collecting data on these areas using two research surveys: the Neighbourhood Active Living Potential (NALP) and the Irvine-Minnesota Inventory (IMI).



Exhibition in Saskatoon



NALP Route Map

NALP consists of 22 items within four areas: Activity Friendliness, Safety, Density of Destinations, and Universal Accessibility. Using this method, observers rated each item on a 6-point scale after walking a pre-defined route in each neighbourhood that connected 10 randomly-selected street segments. The route, typically 4 to 5 kilometres in length, is shown in red on the map.

IMI consists of a 229-item inventory of neighbourhood features within five areas: Attractiveness, Diversity of Destinations, Pedestrian Access, Safety from Traffic, and Safety from Crime. Twenty percent of street segments in each neighbourhood were randomly selected and observed. Each segment is the two facing sides of a street block and is indicated by a numbered flag on the map.



IMI Segments Map

The NALP tool is more subjective in nature and takes into account the impression of the entire neighbourhood based on the systematic observations of the researchers. In contrast, the IMI is more objective in nature and is based on observations of each individual segment. The following report will discuss how the characteristics of Exhibition compare to Saskatoon neighbourhoods in general.

Smart Cities Healthy Kids

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Exhibition Overview

Exhibition is bordered by Taylor Street, Melrose Avenue, Ruth Street, Lorne Avenue, Exhibition Grounds Road, and St. Henry Avenue.

Exhibition was designed under the First Zoning Bylaw, which was effective from 1930—1966. This Bylaw marked the beginning of a formal land use classification system that separated land use types into more defined categories for the purposes of controlling land uses and protecting property values. This Bylaw also marked the beginning of a street classification system that separated volumes of traffic into classes (local, collector, and arterial). Neighbourhoods developed under the First Zoning Bylaw include early forms of curvilinear streets, where grid patterns give way to crescents linked by a collector street. Streets in Exhibition, however, are entirely grid patterned.



Typical Exhibition street view



Children at play street sign

Safety

We rated each neighbourhood according to the presence or absence of certain neighbourhood elements that increase or detract from a feeling of personal security. Observing both the physical and social characteristics of the neighbourhood, security was measured both in terms of traffic and crime. These ratings suggest whether safety concerns affect an individual's related active living decisions in their neighbourhood.

- Out of a possible highest rating of 10, Exhibition rated **6.36** for Safety from Traffic, above Saskatoon's average rating of **6.06**. (IMI)
- Out of a possible highest rating of 10, Exhibition rated **7.73** for Safety from Crime, below Saskatoon's average rating of **8.46**. (IMI)
- Out of a possible highest rating of 6, Exhibition rated **3.88** for Safety, above Saskatoon's average rating of **3.81**. (NALP)

Exhibition's safety ratings suggest that pedestrian and vehicular travel areas are fairly well defined and safe to navigate, but there are some elements that reduce feelings of personal security. For example, most observed streets in Exhibition are uncontrolled and do not have any safety considerations for pedestrians. However, traffic levels were quite low in many areas, so observers felt most streets were fairly safe to cross. Further, areas around the schools include streets signs reminding vehicles to reduce speed and watch for pedestrians and some sidewalks are separated from the street by a grass buffer. In terms of safety from crime, plenty of opportunities for casual surveillance of the street by home owners contributes to the perception of personal security. However, in some areas of the neighbourhood, we observed poorly maintained homes and a high amount of graffiti. Further, there were several spaces throughout the neighbourhood and in alleyways that were concealed by bushes or that could be used for lurking.



Reduced speed school zone

Destinations



Schools and a playground

We rated each neighbourhood according to the number, diversity, and density of its destinations. These ratings suggest whether destinations in a neighbourhood can motivate deliberate, localized active living choices by providing a place to go and a means to interact with others.

- Out of a possible highest rating of 10, Exhibition rated **8.00** for Diversity of Destinations, above Saskatoon's average rating of **6.26**. (IMI)
- Out of a possible highest rating of 6, Exhibition rated **4.25** for Density of Destinations, below Saskatoon's average rating of **3.92**. (NALP)

Exhibition's destination ratings suggest that there are many destinations of moderate variety. For example, observed destinations in Exhibition include two schools, a pub and off-sale liquor store, a pet store, a café, a water park, a food store, some services, Prairieland park, and the Exhibition grounds.

Activity Friendliness

We rated the activity friendliness of each neighbourhood based on specific features that encourage or present barriers to an active lifestyle. These ratings suggest whether a neighbourhood assists or limits the opportunities for physical activities such as walking, cycling, or skateboarding.



Wide streets support cyclists

- Out of a possible highest rating of 10, Exhibition rated **4.88** for Pedestrian Access, below Saskatoon's average rating of **5.08**. (IMI)
- Out of a possible highest rating of 6, Exhibition rated **3.08** for Activity Friendliness, below Saskatoon's average rating of **3.67**. (NALP)

These activity friendliness ratings suggest that Exhibition has both supports and obstructions for pedestrians. For example, many streets were lacking sidewalks, and some sidewalks were in poor



Overhead pedestrian walkway

condition. Grid street patterns provide route choice and easy access for pedestrians and cyclists. However, the Idylwyld Drive freeway cuts through the middle of the neighbourhood, reducing access between the east and west areas to a single overhead pedestrian walkway. Further, many streets are wide enough to support cyclists, but an absence of bike parking throughout the neighbourhood reduces bike friendliness.

Attractiveness



Typical Exhibition streetscape

We rated each neighbourhood based on specific features that could potentially increase or decrease the attractiveness of the neighbourhood. This rating suggests whether the level of attractiveness for each neighbourhood itself can encourage or discourage individuals to participate in an active lifestyle.

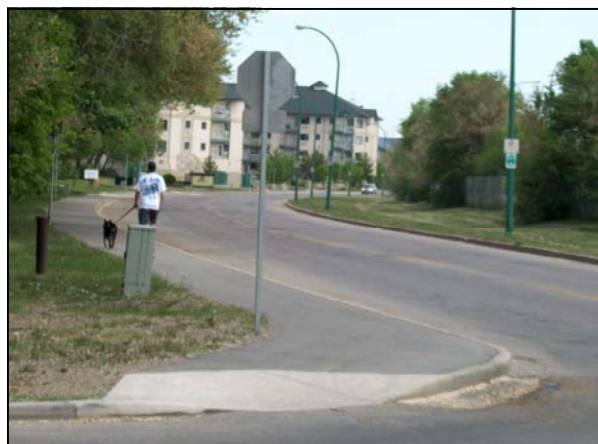
- Out of a possible highest rating of 10, Exhibition rated **4.87** for Attractiveness, above Saskatoon's average rating of **4.80**. (IMI)

Exhibition's attractiveness rating suggests that both attractive and unattractive features are present in the neighbourhood. For example, sidewalk amenities, such as benches and garbage cans, were absent from all observed streets. However, the large street trees observed on most streets provide partial shade for some of the sidewalks. Further, architectural variety, pleasant landscaping, and views of the South Saskatchewan River considerably add to the attractiveness of the neighbourhood.

Universal Access

We rated the universal accessibility of each neighbourhood according to the presence or absence of specific features that help or prevent safe movement for those with mobility, visual, or hearing impairments. These ratings suggest whether people with reduced mobility are able to travel in the neighbourhood safely without assistance.

- Out of a possible highest rating of 6, Exhibition rated **1.83** for Universal Accessibility, below Saskatoon's average rating of **2.19**. (NALP)



Curb cut provides access to the pedestrian path

This universal accessibility rating indicates that Exhibition has few elements that enable safe movement for those with reduced mobility. For example, although few sidewalks in Exhibition are mountable, curb cuts are present at some intersections. However, none of the observed intersections or pedestrian crossings are adapted for individuals with visual or hearing impairments.

The principal investigator for this project is Nazeem Muhajarine, PhD. For a complete list of contributing researchers, partner organizations, project staff, and more information, please visit our website: www.smartcitieshealthykids.com

If you have any further questions about the project, please contact our research co-ordinator tracy.ridalls@usask.ca or call 966-2237.