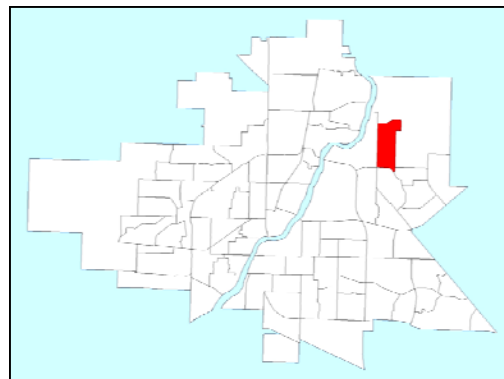


Silverspring



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).



Silverspring 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.

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 Silverspring compare to Saskatoon neighbourhoods in general.



IMI Segments Map

Silverspring Overview

Silverspring is bordered by Fedoruk Drive, Central Avenue, Attridge Drive, Konahowski Road, and Forestry Farm land. Silverspring was developed under Plan Saskatoon, a development plan adopted in 1998 as a result of community wide consultation on development and growth policies. Plan Saskatoon introduced sustainable development principles, Local Area Plans for existing neighbourhoods, and a Formal Concept Planning process for all new neighbourhoods. New forms of neighbourhood development were encouraged, including a minimum average density of five units per acre, housing variety, neighbourhood commercial sites, infill development, affordable housing, and mixed uses in core neighbourhoods and formal industrial areas. Silverspring tried to incorporate sustainable development principles in the design of its linear parks and nature path network.



Dave King Park



Crosswalks with zebra stripes are more visible to motorists

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, Silverspring rated **7.04** for Safety from Traffic, above Saskatoon's average rating of **6.06**. (IMI)
- Out of a possible highest rating of 10, Silverspring rated **9.29** for Safety from Crime, above Saskatoon's average rating of **8.46**. (IMI)
- Out of a possible highest rating of 6, Silverspring rated **4.13** for Safety, above Saskatoon's average rating of **3.81**. (NALP)

Silverspring's safety ratings suggest that pedestrian and vehicular travel areas are well defined and easy to safely navigate and that there are only few elements that reduce feelings of personal security.



Well marked pedestrian crosswalk in a School Zone

For example, the intersections with the most traffic included well-marked pedestrian crosswalks, particularly near the schools. However, some streets could benefit from better consideration for the safety of pedestrians from traffic. In terms of safety from crime, well maintained homes, minimal graffiti, and plenty of opportunities for casual surveillance of the street by home owners all contribute to the perception of personal security. However, there were some concealed areas, particularly in the grassland park, that could be used for lurking.

Destinations

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, Silverspring rated **4.00** for Diversity of Destinations, below Saskatoon's average rating of **6.26**. (IMI)
- Out of a possible highest rating of 6, Silverspring rated **3.56** for Density of Destinations, below Saskatoon's average rating of **3.92**. (NALP)

Silverspring's destination ratings suggest that there are some destinations of limited variety. For example, observed destinations in Silverspring include two schools, several churches, three parks with playgrounds, some playing fields, and nature trails.



Christine Morris Park

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.

- Out of a possible highest rating of 10, Silverspring rated **6.24** for Pedestrian Access, above Saskatoon's average rating of **5.08**. (IMI)
- Out of a possible highest rating of 6, Silverspring rated **4.08** for Activity Friendliness, above Saskatoon's average rating of **3.67**. (NALP)



Bike parking at the schools



Wide streets are supportive of pedestrians

These activity friendliness ratings suggest that Silverspring has both supports and obstructions for pedestrians. For example, well maintained sidewalks were present on both sides of most streets. Further, wide streets provide adequate room for cyclists and bike parking at the schools considerably increases bike friendliness. However, the street design with several crescents and culs-de-sac, limits the route choices and access for pedestrians and cyclists. Though some pedestrian access ways and linear parks provided additional connections in some areas of the neighbourhood.

Attractiveness

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.



Bus shelter and benches



Pedestrian access way

- Out of a possible highest rating of 10, Silverspring rated **3.88** for Attractiveness, below Saskatoon's average rating of **4.80**. (IMI)

Silverspring's attractiveness rating suggests that both attractive and unattractive features are present in the neighbourhood. For example, garages dominate most street views in Silverspring. Sidewalk amenities were present, some of the observed bus stops have benches or shelters, and street benches and well-kept garbage cans were also observed near the parks. Well maintained homes, pleasant landscaping, park space, and nature features considerably increase 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, Silverspring rated **3.17** for Universal Accessibility, above Saskatoon's average rating of **2.19**. (NALP)



Curb cut

This universal accessibility rating indicates that Silverspring has some elements that enable safe movement for those with reduced mobility. For example, some sidewalks in Silverspring are mountable, and curb cuts are present at many intersections. However, none of the observed 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.ca

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