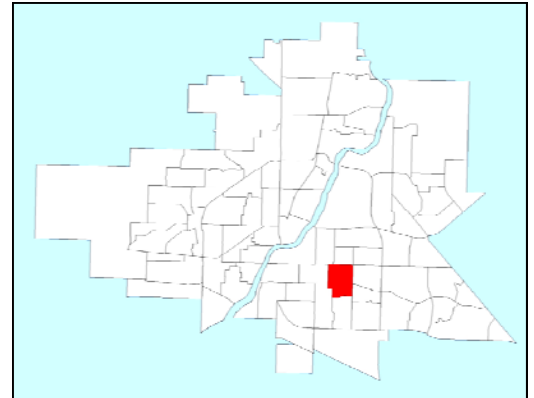


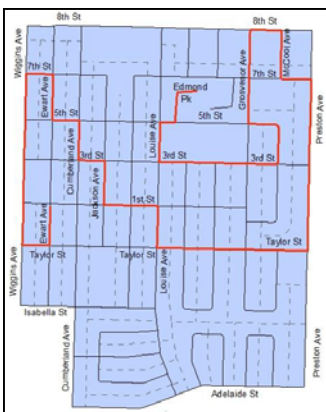
Holliston



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).



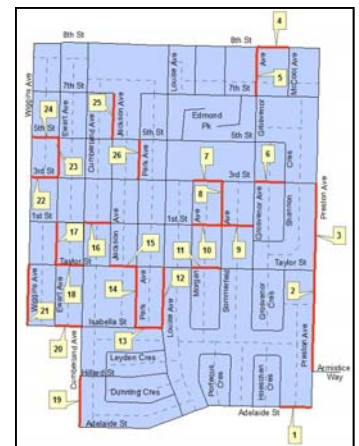
Holliston in Saskatoon



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 Holliston compare to Saskatoon neighbourhoods in general.

Smart Cities Healthy Kids

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Holliston Overview

Holliston is bordered by 8th Street, Preston Avenue, Adelaide Street, Cumberland Avenue, and Wiggins Avenue.

Holliston was designed under the First Zoning Bylaw, which was in effect 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. Indeed, the streets in Holliston are mainly grid patterned in the north with some crescents in the south.



Holliston street view



Pedestrian crosswalk

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, Holliston rated **5.34** for Safety from Traffic, below Saskatoon's average rating of **6.06**. (IMI)
- Out of a possible highest rating of 10, Holliston rated **8.42** for Safety from Crime, below Saskatoon's average rating of **8.46**. (IMI)
- Out of a possible highest rating of 6, Holliston rated **3.50** for Safety, below Saskatoon's average rating of **3.81**. (NALP)

Holliston's safety ratings suggest that pedestrian and vehicular travel areas are fairly well defined and safe to navigate and that there are only a few elements that reduce feelings of personal security. For example, although many of the busier intersections were well marked for pedestrian crossing, several other well-used intersections made no consideration for the safety of pedestrians. In terms of safety from crime, a low amount of graffiti, well maintained homes, and plenty of opportunities for casual surveillance of the street by home owners all contribute to the perception of personal security.



Zebra-stripe crosswalk

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.



Strip mall

- Out of a possible highest rating of 10, Holliston rated **8.00** for Diversity of Destinations, above Saskatoon's average rating of **6.26**. (IMI)
- Out of a possible highest rating of 6, Holliston rated **4.44** for Density of Destinations, above Saskatoon's average rating of **3.92**. (NALP)



Playing field

Holliston's destination ratings suggest that there are several destinations of a wide variety. For example, observed destinations in Holliston include two schools, a fitness centre, an outdoor community pool, an outdoor hockey rink, a playing field, a community park, a playground, several churches, restaurants, a bakery, an outdoor dining area, and a strip mall with retail, medical, and professional services.



Room on the road for cyclists

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, Holliston rated **4.32** for Pedestrian Access, below Saskatoon's average rating of **5.08**. (IMI)
- Out of a possible highest rating of 6, Holliston rated **3.25** for Activity Friendliness, below Saskatoon's average rating of **3.67**. (NALP)



Sidewalks are absent



Sidewalks are absent

These activity friendliness ratings suggest that Holliston has both supports and obstructions for pedestrians. For example, sidewalks are absent from many well-used areas of the neighbourhood. However, the primary grid street pattern provides route choice and connections for pedestrians and cyclists. Further, wide streets provide adequate room for cyclists, and bike parking located at some destinations considerably increases bike friendliness.

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

- Out of a possible highest rating of 10, Holliston rated **4.75** for Attractiveness, below Saskatoon's average rating of **4.80**. (IMI)

Holliston'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 present in some areas, and some of the bus stops provide shelter from wind and rain. Large street trees observed on most streets provide partial shade for some of the sidewalks. Further, well maintained homes, some architectural variety, neighbourhood green space, and pleasant landscaping considerably increase the attractiveness of the neighbourhood.



Playground and neighbourhood park

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, Holliston rated **1.33** for Universal Accessibility, below Saskatoon's average rating of **2.19**. (NALP)

This universal accessibility rating indicates that Holliston has few elements that enable safe movement for those with reduced mobility. For example, many sidewalks in Holliston are not mountable, although there are graded curb cuts present at some intersections. Further, only one of the observed pedestrian crossings is adapted for individuals with visual or hearing impairments.



A curb cut in the median enables crossing for individuals with reduced mobility

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.