

Walkable Community Checklist Report

**A Compilation of Data on Existing
Supports for Walkable Communities in
Niagara and Areas in Need of Improvement**

**Prepared by Healthy Living Niagara as part of walkON
May 2010**

(Based on data collected from October 2008 - September 2009)



healthylivingniagara.com



walkON

Author:

Lisa Gallant, Healthy Living Niagara Coordinator, Niagara Region Public Health

Acknowledgements:

Thank you to Carma Lynn Wylie, Epidemiologist, Niagara Region Public Health for assistance in preparing this report.

Thank you to Lucretia Harris, Office Assistant, Niagara Region Public Health for assistance in designing the excel spreadsheet for data entry and entering the data for this report.

Thank you to Alan Gummo, Associate Director of Planning, Integrated Community Planning, staff from Niagara Region Transportation Services -- Eric Flora, Associate Director Transportation Systems, Mike DiPaola, Associate Director Transportation Engineering, Ranjan Kumar, Transportation Engineer, Phil Bergen, Transportation Planning Technologist and Petar Vujic, Supervisor Traffic Studies, staff from Niagara Region Public Health -- Dianne Coppola, Manager, Tami McCallum, Manager, Marian Landry, Health Promoter and members of the Central West walkON Coordinating Committee for reviewing this report.

Table of Contents

Executive Summary	4
Background	5
Data Collection and Analysis	5
Data Collection Tools	5
Data Collection Procedures	6
Description of the Data	6
Data Analysis 6	
Limitations 7	
Results	8
Section 1 – Ease	8
Section 2 – Density and Diversity	9
Section 3 -- Enjoyment	10
Section 4 -- Safety	11
Section 5 – Overall Score	12
Discussion	13
Section 1 -- Ease	13
Section 2 – Density and Diversity	13
Section 3 -- Enjoyment	14
Section 4 – Safety	14
Section 5 – Overall Score	15
Recommendations	15
Use of local data	15
Improvements to checklist	16
Appendix 1 – Walkability Checklist	17
Appendix 2 – Comments from respondents for each municipality.	19

Executive Summary

In October 2008, Healthy Living Niagara, a partnership of over 35 community groups and individuals working together for a healthy Niagara¹, began collecting local data on existing supports for walkable communities in Niagara and areas in need of improvement. This was done through use of a walkable community checklist developed by walkON, a partnership of six heart health sites in Central West Ontario (including Healthy Living Niagara).

The checklist assessed four main components associated with a walkable community from the perspective of the walker (see checklist in Appendix 1):

- how easy the walk was,
- the variety of places they saw or could get to during the walk,
- how enjoyable the walk was and
- how safe they felt.

This report is a compilation of that data. The findings will be shared with decision-makers such as mayors, regional and municipal councillors and staff. The findings will also be shared with citizens groups that work towards making their municipalities more walkable. It is hoped that these decision-makers will be able to use this local data to support budget and policy decisions that improve the built environment to better support walking and cycling.

Infrastructure changes that respondents commented on most often include:

- sidewalks -- ensuring sidewalks are in good repair on both sides of streets,
- streetscape -- improving the condition or type of shops and businesses that people can walk to,
- street furniture -- adding places for pedestrians to rest along walking routes,
- safety -- improving safety of walking routes by using traffic calming methods, and
- street lighting -- improving street lighting for visibility and safety of pedestrians.

By combining municipal data found in Appendix 2 with other local data collection procedures such as traffic studies, municipal decision makers can add to their knowledge of residents' support for infrastructure changes and barriers that make it difficult for residents to walk to many destinations. The intention of the **Walkable Community Checklist Report** is to provide useful data that decision makers in the area municipalities can consider during prioritization of infrastructure projects.

Continued promotion of the checklist by residents will provide a growing base of data on existing supports for walkable communities in Niagara as well as those areas in need of improvement. The checklist may also help to build awareness about the importance of walkable communities and to build positive attitudes towards walkable communities.

¹ Examples of partners include public health, municipalities, non-profit groups, and service clubs

Background

As part of efforts to establish walkable communities as the social and cultural norm, walkON, a partnership of six heart health sites in Central West Ontario (including Healthy Living Niagara), developed a checklist. This checklist contains information designed to raise awareness about walkable communities and their associated health benefits. Most importantly, it provides a means for citizens to identify infrastructure strengths and challenges regarding the walkability of their neighbourhoods.

The purpose of this investigation is to summarize the compiled data collected to date to identify existing supports for walkable communities in Niagara as well as to identify those areas in need of improvement. The data was taken from checklists returned by citizens across the Niagara Region between October 2008 and September 2009.

The report may be of interest to decision-makers such as mayors, regional and municipal councillors and staff. It is the hope of the members of walkON that these decision-makers will be able to use this local data to support budget and policy decisions that improve the built environment, which in turn will better support walking and cycling. This report will also be shared with citizens groups that work towards making their municipalities more walkable.

Data Collection and Analysis

Data Collection Tools

walkON's Coordinating Committee developed the checklist with support from epidemiologists from Haldimand-Norfolk and Niagara public health departments. They implemented a formative evaluation of the tool to determine if the checklist was an effective tool for raising awareness amongst the general public and elected officials about walkability in their neighbourhood. Formatting changes were made to the checklist following this formative evaluation to make it easier to use. It was also reviewed and edited by a literacy expert.

The checklist was designed to measure four main categories associated with a walkable community:

- ease,
- density and diversity,
- enjoyment, and
- safety

To measure how a neighborhood rated in regards to the individual categories, the checklist consisted of a few questions that aimed to capture the respondent's opinion about the various aspects that make up each individual topic. To measure overall walkability, walkON created a scoring system based on the number of items on the checklist a respondent checked off. This scoring system is as follows: a score of 19 or more suggests that an area is easy to walk in; 16-18 suggests that an area that is doing well; 11-15 suggests that an area may need some modifications to make it more walkable; 10 or less suggests that an area requires many modifications to make it more walkable.

The checklist was printed in brochure and newspaper insert formats. It was also available at www.iCANwalk.ca where it could be printed, completed and mailed in or it could be completed and submitted directly online.

Data Collection Procedures

Residents across Niagara were introduced to the checklist through the iCANwalk campaign which was launched in October 2008. The campaign activities were designed to create a general awareness about the elements that support or prevent walking in an individual's neighbourhood and encouraged residents to gather this data using the checklist. The Niagara checklist was promoted through print ads, posters, display boards, radio ads, media articles, a children's book and a website.

Distribution points for the checklist and other campaign material included Early Years Centres and Childcare Centres, Brighter Futures sites, municipal offices through parks and recreation, libraries, and elementary and secondary schools. Several Healthy Living Niagara partners distributed campaign material to the public such as the YMCA of Niagara, District Stroke Centre, Niagara Falls Family Health Practice, Niagara College and Heart Niagara. Workplace staff that participated in a Healthy Living Niagara professional development session also received campaign materials to distribute to employees.

In total, 18,000 brochures and 226,000 inserts containing the checklist were distributed across Niagara. Out of these inserts, 178,000 were delivered to the doors of Niagara residents and approximately 45,000 of them were sent home with elementary school students and secondary school students.

In the checklist, readers were encouraged to take a 15 minute walk to visit a destination such as a store, business, school or friend's home. After taking the walk they were encouraged to complete the checklist to identify what could be done to make that area more walkable. After completing the checklist, respondents were encouraged to rate their walk by adding together the number of items they checked off. After calculating their score, respondents could read a discussion in the checklist which provided a description of the walkability of an area based on the score received on the checklist. Respondents were then encouraged to contribute to changes that would improve the walkability of their neighborhood, especially if their walk received a rating of 10 or less.

Respondents were encouraged to return the checklist via mail or complete the electronic version located at www.iCANwalk.ca. The checklists in the brochure format contained a postage paid feature. To increase the response rate of the checklists, respondents were offered a chance to win an IPOD NANO. To qualify, they needed to mail in their checklist along with an entry ballot for the draw.

Description of the Data

Data Analysis

As of September 30, 2009 635 completed checklists had been submitted; 259 from an insert distributed through newspapers; 59 from an insert distributed to schools; 208 from postage paid brochure checklists and 109 from online submissions.

The data from the electronic checklists were stored in a searchable database that were exported to excel and compiled for analysis. Data from the checklists returned by mail were added to the excel spreadsheet. Postal codes were entered into a conversion software to determine which municipality respondents were from.

Limitations

Before discussing the implications of the findings and suggestions for the future, the limitations of the checklist and method of data collection are addressed.

First and foremost, there are some limitations in regards to the method of data collection used. Due to resource constraints, it was necessary to implement a method in which the completion and submission of the checklist was left to the responsibility of the individual who received the checklist. As such, the data collected is subject to selection bias. The individuals who completed and submitted the checklist may represent a population that has a greater interest in the walkability of their neighborhood than the general population of Niagara or may have a specific infrastructure need that they want addressed. In addition, some respondents may have participated simply because they wanted to win an i-pod.

Therefore, the method of data collection resulted in a relatively small sample size and the non-randomized method of data collection produced data that more than likely does not accurately represent the thoughts and opinions of all Niagara residents. Therefore, this data cannot be generalized to Niagara population as a whole.

In addition to the data collection method, there are also limitations with the checklist itself that need to be addressed. While the checklist does include questions that ask the date and time of day (i.e., am or pm) a respondent took their walk, this information does not provide sufficient information to pinpoint exact walking conditions for the respondent, such as weather conditions and amount of daylight. These factors could influence some of the responses by the walker, such as the number of people seen and whether or not the path was well lit. Therefore, caution should be taken when reviewing these responses.

Finally, the checklist is designed for use in urban and suburban areas and the downtown or core areas of rural communities. Therefore, infrastructure changes referred to in this report are not intended for all sections of rural areas.

While there are limitations to the data collected, it provides a starting point for identifying existing supports for walkable communities as well as areas in need of improvement.

Results

The following data indicates overall responses from the 635 respondents across the Niagara Region. Qualitative data outlining suggested improvements to named streets in each municipality is provided in Appendix 2.

Table 1 *The number of checklists submitted from each municipality*

Municipality	Number of Respondents (%)
St. Catharines	194 (30.6)
Welland	91 (14.3)
Niagara Falls	81 (12.8)
Town of Lincoln	34 (5.4)
Grimsby	32 (5.0)
Pelham	90 (14.2)
Port Colborne	26 (4.1)
Fort Erie	27 (4.3)
Thorold	28 (4.4)
West Lincoln	15 (2.4)
N.O.T.L	12 (1.9)
Wainfleet	5 (0.8)

Section 1 – Ease

The first section of the checklist asked people to consider how easy their walk was. Table 2. shows the percentage of respondents who agreed with the statements provided in this section of the checklist.

Table 2 *Percentage of respondents who agreed with statements in the checklist related to ease*

I could use sidewalks, trails or paths to get where I was going	75%
There were sidewalks on both sides of the street	45%
Nothing blocked the sidewalks, like bushes or garbage	63%
The sidewalks were wide enough so I could walk beside another person	65%
I could easily use the sidewalks if I was in a wheelchair or pushing a stroller	55%
The sidewalks were well maintained	52%

As seen in Table 2, many respondents (75%) indicated that they could use sidewalks, trails or paths to get to where they were going. Only 52% of respondents indicated that the sidewalks were well maintained and only 55% indicated that they could easily use the sidewalks if they were in a wheelchair or pushing a stroller. Less than half of the respondents (45%) indicated that there were sidewalks on both sides of the street where they walked.



Section 2 – Density and Diversity

The second section of the checklist asked readers to consider what people and places they saw during their walk. Table 3. shows the percentage of respondents who agreed with the statements in this section of the checklist.

Table 3 *Percentage of respondents who agreed with statements in the checklist related to density and diversity*

I saw a mix of homes, businesses, stores and schools	74%
I could easily walk to stores, schools and businesses	68%
I passed apartments, attached houses, and single detached houses	66%
I passed windows, not just walls and fences	74%
I met people on the street	61%

As seen in the table above, many respondents passed windows along their walk, not just walls and fences (74%), many indicated that they saw a mix of homes, businesses, stores and schools along their walk (74%) and the majority also indicated that they could easily walk to stores, schools, and businesses (68%).

Only 61% of respondents reported that they met people on the street during their walk.



Section 3 -- Enjoyment

The third section of the checklist asked readers to consider if their walk was enjoyable. Table 4. shows the percentage of respondents who agreed with the statements provided in this section of the checklist.

Table 4 *Percentage of respondents who agreed with statements in the checklist related to enjoyment*

The route I took was pleasant and inviting	75%
I saw plants, trees and gardens on my walk	88%
If I needed to stop, there were benches or other places to rest	30%
I enjoyed the walk because there were interesting things to see	61%
It was easy to get to the shops and businesses	59%
The shops and businesses were neat and tidy, and worth a visit	48%

Many respondents found their walk was pleasant and inviting (75%) and most saw plants, trees and gardens on their walk (88%).

Only 30% of respondents indicated that there were benches or other places to rest along their walk. Less than half (48%) noted that the shops and businesses along their walk were neat and tidy and worth a visit.

About two thirds of respondents (59%) said that it was easy to get to shops and businesses or that they enjoyed the walk because there were interesting things to see (61%).



Section 4 -- Safety

The fourth section of the checklist asked readers how safe they felt during their walk. Table 5 shows the percentage of respondents who agreed with the statements provided in this section of the checklist.

Table 5 *Percentage of respondents who agreed with statements in the checklist related to safety*

It was very clear where I could walk and where cars or bikes were supposed to be	66%
It was easy to read the signs	70%
Crosswalks were well marked	55%
At crosswalks, I had enough time to cross the street	51%
Cars stopped at crosswalks and signal lights	53%
Cars driving at a safe speed	47%
At night, the sidewalks, trails and paths were well lit	33%

Many respondents indicated that it was easy to read the signs along their route (70%). Over two-thirds indicated that it was very clear where they could walk and where cars or bikes were supposed to be (66%).

Just over half of respondents indicated that at crosswalks they had enough time to cross the street (51%) and that that cars stopped at crosswalks and signal lights (53%).

Less than half of respondents indicated that cars drove at a safe speed (47%). Only 33% of respondents agreed with the statement that at night, the sidewalks, trails and paths were well lit.



Section 5 – Overall Score

Respondents were asked to rate their walk by adding up the number of boxes that they marked with a check. Figure 1 shows the percentage of respondents that fell into each of the four walkability score levels, as described previously.

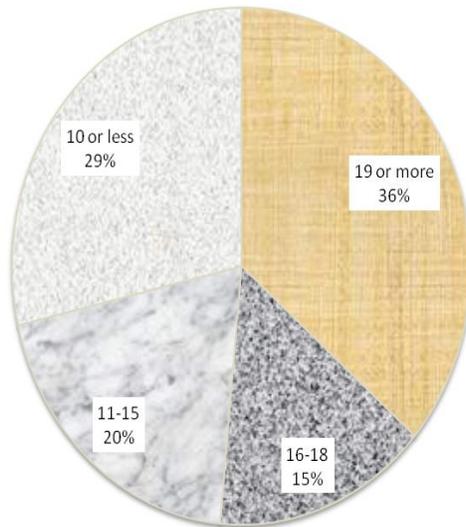


Figure 1. Percentage of respondents that fell into each of the four walkability score levels

As mentioned previously, a score of 19 or more indicates an area that is easy to walk in; 16-18 indicates an area that is doing well; 11-15 indicates an area that needs some modifications to make it more walkable; 10 or less indicates an area that requires many modifications to make it more walkable.

This scoring was created by walkON to provide some direction for respondents regarding how walkable their area is and to encourage them to contribute to changes especially if their walk received a rating of 10 or less.

Approximately only one third of respondents (36%) walked in an area that received a score of 19 or more, thereby indicating an area with high walkability.

Discussion

A return rate of 635 checklists using various mediums suggests a positive initial response from the public to the campaign. The data will support municipal and regional efforts to compile data on existing supports for walkable communities and areas in need of improvement.

The discussion that follows provides some suggestions based on the data that was summarized above. This discussion is broken down by the four sections of the checklist and the overall walkability scores that were calculated.

Section 1 -- Ease

Research indicates that people cite lack of adequate sidewalks as a barrier for allowing children to walk to school². According to a study published in the American Journal of Preventative Medicine, “the biggest single factor influencing physical activity around the world is accessibility to sidewalks”.³

Given that only 52% of respondents indicated that the sidewalks were well maintained and less than half of respondents (45%) noted that sidewalks were not present on both sides of the street where they walked, this would suggest that much can be done to improve this factor that has a significant impact on the walkability of communities.

Section 2 – Density and Diversity

Density: refers to the amount of activity found in an area. Medium density areas have a high number of people living in an area with a variety of residential structures, businesses, schools, stores and restaurants integrated into the community. Density affects walking by impacting the distances between destinations and the number of destinations that can be reached on foot. Research has demonstrated that as density increases, walking increases⁴(Sallis, & Frank, 2003).

Many respondents (66-74%) indicated that they saw a mix of homes, businesses, stores and schools on their walk, that they could easily walk to these places and that the mix of homes included apartments, attached houses and single detached houses. This would suggest that many areas where respondents walked were areas of medium density. Increasing areas of medium density can be further encouraged by ensuring that new developments have a mix of apartments, town homes and single detached houses. Policy and zoning changes can also be entertained in new and existing developments to bring suitable commercial buildings into residential areas; providing more destinations to which people can walk.

² Ahlport, K.N. et al. (2008). Barriers to and facilitators of walking and bicycling to school: formative results from the non-motorized travel study. *Health Education and Behaviour*, 35(2), 221-244.

³ Sallis J.F., et al. (2009). Neighborhood environments and physical activity among adults in 11 countries. *American Journal of Preventive Medicine*, 36(6).

⁴ Saelens, Brian E.; Sallis, James F.; Frank, Lawrence D. (2003). Environmental Correlates of Walking and Cycling: Findings from the Transportation, Urban Design, and Planning Literatures. *Annals of Behavioral Medicine*, 25 (2): 80-91.

Only 61% of respondents met people on the street during their walk. This may suggest a need to address components that make a community more walkable such as increasing the amount of activity in an area. However, as noted in the limitations, this response may have been affected by the weather or time of day when the walk occurred.

Section 3 -- Enjoyment

The design aspect of the built environment focuses on creating environments that actually encourage walking by establishing direct and varied routes that are safe and aesthetically appealing. Design has the potential to increase the desirability of walking as an option by enhancing the quality of the pedestrian experience.

Aesthetics is one component of design. Neighbourhoods that are attractive and therefore invite further exploration include landscaping, lighting, a variety of building types and the availability of amenities along walking routes such as street benches, shade trees and shelter.

Two-thirds of respondents (59%) said that it was easy to get to shops and businesses or that they enjoyed the walk because there were interesting things to see (61%). However, only 30% of respondents indicated that there were benches or other places to rest along their walk and less than half (48%) noted that the shops and businesses along their walk were neat and tidy, and worth a visit.

This suggests that neighbourhood design is another area where improvements could possibly be made. People may be more likely to use walking as a form of transportation if there were more places to rest along the way and if there were interesting and worthwhile shops and businesses to visit along the way. Municipal streetscaping improvements, undertaken through community improvement plans informed by supportive design guidelines, could be considered in such areas. Public realm improvements lead by the municipality can have catalytic effects in encouraging revitalization, business regeneration, and diversification of the area's retail and service mix.

The walk may also be more appealing to people if there were benches or other places for pedestrians to rest along the way. Facilitating occupancy of public space for social interaction can contribute to the capacity of the area to draw pedestrians for other more utilitarian purposes.

Section 4 – Safety

Safety or perceived safety along walkway routes is a barrier to walking. Safety of pedestrians can be increased by separation of walkways from the road, traffic calming features, adequate lighting, crossing signals and legible street signs.

As walking declines, drivers are less likely to watch for pedestrians making this activity even more dangerous⁵. According to Lawrence (2006), "Presence of sidewalks, the amount of on-street and surface parking, building placement and site design, transit accessibility, and visual

⁵ Frank, L., Kavage, S., & Litman, T. (2006) Promoting public health through Smart Growth Building healthier communities through transportation and land use policies and practices. *Smart Growth B.C.* 1-43

quality not only improve the actual safety and appearance of the streetscape, but the perception of an area's safety and walkability" (p.15).

Less than half of respondents (47%) noted that not many cars drove at what they considered to be a safe speed. Almost half of the respondents expressed concern that cars did not stop at crosswalk and signal lights (53%) or that they had enough time to cross the street at crosswalks (51%).

These responses suggest that much could be done to improve design aspects to calm traffic and make walking routes safer for pedestrians.

Only 33% of respondents agreed with the statement that "at night, the sidewalks, trails and paths were well lit". This suggests that many streets may require better lighting for pedestrians. It is noted however, that many respondents may not have checked this item as it may not have been applicable to them if they were walking in daylight.

Section 5 – Overall Score

When asked to rate their walk by adding up the number of boxes they marked with a check, less than half of respondents, (only 36%) indicated that it was easy to walk in the area that they assessed. This suggests that much can be done to make neighbourhoods in Niagara more walkable.

Recommendations

Use of local data

Municipal decision makers and local citizens groups interested in infrastructure changes that will improve local walking conditions can review their municipality's data in Appendix 2. This municipal data collected from completed checklists combined with other local data collection procedures such as traffic studies can help decision makers to prioritize infrastructure projects.

Design changes that seem to require the most attention include ensuring sidewalks are in good repair on both sides of streets, improving the condition or type of shops and businesses that people can walk to, adding places for pedestrians to rest along walking routes, improving safety of walking routes by calming traffic and improving lighting. While lighting may be an issue requiring attention, decision makers may wish to further investigate the areas noted as a concern in their municipal data. While 33% of respondents agreed with the statement that "at night, the sidewalks, trails and paths were well lit", the question may not have been applicable to all respondents.

Continued use of the checklist by residents will provide a growing base of data on existing supports for walkable communities in Niagara as well as those areas in need of improvement. Municipalities are encouraged to promote use of the checklist as a way to engage constituents in creating a healthy community. Paper copies of the checklists are available by calling 905-688-8248, ext. 7531 (toll free 1-888-505-6074) or by emailing hln@niagararegion.ca. An electronic version of the checklist is available at iCANwalk.ca. Healthy Living Niagara will continue to analyze data from returned checklists throughout 2010 and provide updates to municipal decision makers and citizens groups working to improve the walkability of their communities.

Improvements to checklist

Prior to further printing of the checklist, consideration should be given to simplifying the tool by combining some items such as the first three items listed under what people and places respondents' saw during their walk. Consideration should also be given to the wording of the question that asks if the sidewalk were lit at night as it is difficult to determine if the question was relevant to all respondents or not.

Appendix 1 – Walkability Checklist

How walkable is your community?

Take a 15 minute walk along a road. Walk on the sidewalk or path to visit a store, business, school or person. Then fill out this checklist.

Step 1: Write about your walk

City _____
Street _____
Where did you walk?
I walked from _____
to _____
along _____
When was your walk? _____ at _____ AM PM
The date was _____

Step 2: Think about your walk

Now, please think about your walk. Please put a check in each box that you agree with.

How easy was your walk?

- I could use sidewalks, trails or paths to get where I was going
- There were sidewalks on both sides of the street
- Nothing blocked the sidewalks, like bushes or garbage
- The sidewalks were wide enough so I could walk beside another person
- I could easily use the sidewalks if I was in a wheelchair or pushing a stroller
- The sidewalks were well maintained (if the sidewalks need to be fixed, please tell us what is wrong, and where to find the problem)

If you did not check any of these boxes, please tell us why:

What people and places did you see?

- I saw a mix of homes, businesses, stores and schools
- I could easily walk to stores, schools and businesses
- I passed apartments, attached houses and single detached houses
- I passed windows, not just walls and fences
- I met people on the street

If you did not check any of these boxes, please tell us why:

Was your walk enjoyable?

- The route I took was pleasant and inviting
- I saw plants, trees and gardens on my walk
- If I needed to stop, there were benches or other places to rest
- I enjoyed the walk because there were interesting things to see
- It was easy to get to the shops and businesses
- The shops and businesses were neat and tidy, and worth a visit

If you did not check any of these boxes, please tell us why:

How safe did you feel?

- It was very clear where I could walk and where cars or bikes were supposed to be
- It was easy to read the signs
- Crosswalks were well marked
- At crosswalks, I had enough time to cross the street
- Cars stopped at crosswalks and signal lights
- Cars driving at a safe speed
- At night, the sidewalks, trails and paths were well lit

If you did not check any of these boxes, please tell us why:

Step 3: Rate your walk

How many boxes did you mark with a check?

What the number of check marks represents:

- 19 or more Celebrate! Your community makes it easy to walk for all your daily needs.
- 16-18 Your community is doing well
- 11-15 Your community could do more.
- 10 or less Let's work hard to make your community more walkable.

Do you have any other ideas about what could make your community more walkable?
Please share them here:



Appendix 2 – Comments from respondents for each municipality.

Email hln@niagararegion.ca for municipal data