

SEVEN YEARS LATER:

EVALUATING IMPACT ON ACTIVE TRANSPORTATION IN HALIBURTON COUNTY

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ABSTRACT

The purpose of this study was to evaluate the impact of the work of the Communities in Action Committee on changes to active transportation (AT) policy, infrastructure and activity in Haliburton County, a small rural area in Ontario. The study period was 2005 to 2012. Four evaluation strategies were used: an inventory, community survey, observational study, and key informant interviews. The inventory documented changes in the AT environment, including numerous policy and extensive infrastructure improvements. The survey showed increases in reported AT behaviour compared with previously conducted surveys, while reported barriers remained consistent. Observational studies were done in two communities and results compared with studies done in previous years. Levels of AT activity were significantly higher in several locations. Interviews with key informants identified several themes regarding the impact of the CIA, and gave an average rating of 4.5 regarding the CIA's contribution to observed changes.

Many factors contribute to increasing AT activity in a community. The study findings indicated that the CIA has contributed to these changes. At a community-level, promotional efforts were successful in raising awareness of AT, which contributed to more people using AT more often. Demonstrating demand in the community is an important aspect of influencing decision makers. Initiatives directed at municipal officials have influenced changes to policy and planning and to a lesser degree, infrastructure. The CIA has been able to position themselves as a credible resource to municipalities, and have added value and capacity to municipal projects and priorities. In small, rural communities, where both human and financial resources are limited, partnership between municipalities and community groups like the CIA is a critical aspect of creating communities that support and encourage active transportation.

FOR FURTHER INFORMATION VISIT WWW.COMMUNITIESINACTION.CA



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New streetscape, Highland St, Haliburton Village

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*New streetscape,
Bobcaygeon Rd, Minden*

SECTION 1: INTRODUCTION

Active transportation (AT) refers to any form of human-powered transportation, including but not limited to walking, cycling or using a wheelchair.¹ Communities across Canada and North America are taking steps to improve conditions for active transportation, recognizing the many benefits of encouraging people to use their cars less and walk or bike more.² There are unique challenges in rural communities that can present barriers to accommodating active transportation. For example, low population density, large distances between destinations, a car culture, and limited financial and human capacity can all be obstacles to active transportation planning and implementation.³ The benefits, however, are similar, regardless of where one lives. Active transportation in small towns plays an important role in improving economic vitality, public safety and population health.⁴ It is "...a creative, cost-effective, simple solution that addresses multiple challenges in a single step: affordable transportation, changing demographics, obesity and economic development."⁵

The Haliburton County Communities in Action Committee (CIA) was formed in 2004 to promote and plan for AT as a strategy for creating a healthy, active community, using the following approaches:

- Education about and promotion of AT
- Collaboration and partnership with multiple sectors
- Planning and design for AT
- Advocacy for healthy public policies

The CIA is a coalition with representatives from a variety of sectors in Haliburton County. Its members represent public health, economic development, cycling, trails, business, and healthy community planning. In all its work to improve conditions for AT, the CIA forges partnerships with a variety of other groups, including county and municipal governments, community-university research programs, a seniors' planning group, and local schools.

Recent literature discusses the impact that the built environment and public policy have on physical activity. Factors in the built environment such as accessibility, availability, connectivity, safety and aesthetics have been shown to influence levels of physical activity, in particular walking and cycling.^{6 7 8} The Task Force on Community Preventative Services reviewed interventions for promoting physical activity and recommended two that are policy related: 1) community scale urban design and land use policies and 2) street scale urban design and land use policies. Policy instruments include things like municipal by-laws, zoning regulations, government policies, and roadway design standards.⁹ Policy in turn impacts community design. The connection between public policy and the creation of healthy built environments was identified by the World Health Organization in 1988, when they stated, "The main aim of healthy public policy is to create a supportive environment to enable people to lead healthy lives. Such a policy makes healthy choices possible or easier for citizens. It makes social and physical environments health-enhancing."¹⁰

Despite this , there is little evidence linking the effectiveness of interventions that change the built or policy environment with behavioural and health outcomes.¹¹ Many who plan and implement AT initiatives talk about the difficulty of measuring impact. After six years of AT planning, promotion, partnership and advocacy, the CIA was interested in knowing how its efforts have translated into changes at both the municipal and community levels. Ultimately, the goals of the CIA were to have AT included in community and land use planning, and to increase the levels of walking and cycling activity in the community. A comprehensive evaluation strategy was undertaken to measure progress towards these goals from a number of perspectives.

This paper presents an overview of the evaluation strategy, the methods used to collect data, the results from the research, a discussion of the findings and some implications that may be of interest to AT professionals and practitioners.



*Re-Cycler – Art Bike Rack created by
local ironwork artist Leo Sepa*

SECTION 2: STUDY AREA AND BACKGROUND

2.1 STUDY AREA

Haliburton County is a rural region located in central eastern Ontario. The county comprises four municipalities, with a combined population of approximately 17,000. With a rich and diversified natural environment, tourism is one of the main economic drivers. The county has a large number of seasonal residents which increases the population by approximately 45,000 in the summertime.¹² The resultant seasonal nature of the economy has a significant impact on employment rates. As of April 2011, the unemployment rate for the County was 9.5% which was higher than the provincial rate of 7.7%.¹³ The county also has a high number of seniors with a median age of 54.0 years, considerably higher than that of the province of Ontario as a whole (40.4 years).¹⁴

Compared with residents of urban settings, rural residents are generally more dependent on their cars, engage in less physical activity, and are more likely to have health problems associated with being overweight or obese.¹⁵ They are also less likely to have access to sustainable transportation options such as public transit, cycling and walking paths.¹⁶ Lack of physical activity is one factor associated with the development of several chronic diseases. County residents have higher rates of cardiovascular disease, cancer, hypertension and respiratory disease than Ontario as a whole.¹⁷ In the 2006 census, 6% of workers in Haliburton County reported walking or bicycling to work. This is in-line with the province at 6.8%.¹⁸ It is not clear from the census data how often people chose these travel modes.

2.2 BACKGROUND

Prior to 2004 in Haliburton County, there was little in the way of policy or initiatives focusing on active transportation (AT) or creating a healthy built environment, and there was limited community awareness about AT and its benefits. Most official plans did not include policies addressing active transportation or healthy, active communities. There were also no community groups to plan or promote active transportation activities. The Communities in Action Committee (CIA) is a coalition of partners that was formed in 2004 to plan for active transportation as a way to increase physical activity and create a healthier community. It is a community-based group that includes representatives from public health and community economic development, as well as trails, cycling, seniors and business organizations.

The CIA has focused on four areas: education and promotion, collaboration and partnership, planning and design, and public policies and advocacy. CIA initiatives have targeted both municipal governments and the community-at-large, because bringing about policy changes and commitment to investing in infrastructure requires that there be community-level interest in having better opportunities to use AT. At a community level, AT helps address health outcomes by promoting and encouraging AT as an affordable, accessible way to incorporate physical activity into daily living. Promotion of walking and cycling also linked to local municipal priorities around economic development, tourism, and attraction and retention of residents and businesses.

Until fairly recently, most of the research on the implementation of AT initiatives has taken place in urban settings. The activities of the CIA and its partners have been the subject of a number of case studies and presentations, and in this way, the CIA has contributed to building a body of knowledge about rural active transportation planning. The CIA has been contacted by several other rural communities who have wanted to implement active transportation strategies and learn from Haliburton County's experience.

The CIA has obtained grants from a variety of sources to promote and plan for AT in local communities. The focus has been on village hubs, Haliburton and Minden, because these serve as central locations for most economic and social activity.

The CIA began its research in 2005, with a focus on the Village of Haliburton. In essence, the strategies and approaches developed in 2005 served as pilots for subsequent research. A summer student, in consultation with the CIA, designed and implemented three research strategies: a community survey, focus groups and an observational study. The student developed and distributed a survey on AT behavior to different population groups in Haliburton Village. Targeted groups included seniors, youth and parents with young children. The survey was completed on paper and revised after each administration, as lessons were learned about clarity of questions, need for additional questions, etc. Although this made it difficult to do direct comparisons between the survey groups, the survey did provide some indication of AT activity. Sixty percent of respondents reported using AT at least sometimes. However, the total number of respondents was quite small (n=50), so this figure was used cautiously. Also, a significant proportion of the respondents were youth, who were more likely to report using AT because they may not drive or have access to a car.

Eight focus groups were conducted in Haliburton with targeted interest groups, and provided qualitative information about AT activity and infrastructure. Five groups were geographic divisions (neighbourhoods) and three were groups with specific interests: high school youth, seniors and mothers with young children. Each focus group had a facilitator to guide the discussion, and a scribe to take notes. Open-ended questions were posed to participants about how they got around, and to identify places that they found good or bad for using active transportation (called 'hotspots'). The protocol for the focus groups evolved with each one as the team learned about what process and questions were most effective. Despite the variation that existed in the surveys and the focus group processes, there was consistency in some of the data. In particular, four locations around Haliburton were consistently identified as 'negative hotspots' for AT. These were: the courtesy crosswalk on Highland St., York St overall, the bridge on County Rd 21 and the area around the schools.

The student developed an observational method for counting people using AT, in order to obtain quantitative data on levels of AT in and around Haliburton Village. Observational counts were planned at 17 locations, at three different times of day (8:30 – 9:30 am, 12:00 – 1:00 pm, 3:30 – 4:30 pm). In practice, there was some variability in the time frames, due to the schedule of the person doing the observations. The observer recorded the mode of active travel, route taken (which could be more than one street), gender and approximate age demographic (youth/adult). From the observational data, a

numeric value of people using AT per hour was calculated for comparisons between locations. Again, because this was a pilot observational study, it is likely that there was some variability in the numbers due to the evolving protocol used to conduct the counts. Even so, trends were apparent. Locations with the highest use of AT were those on or close to Highland St (main downtown street), and in front of the high school. Outlying locations had significantly fewer people using AT. A final report was written describing the methodologies, reporting results and forming general conclusions.¹⁹

The research methods were further refined for implementation in Minden, which began in 2007. The survey was revised by members of the CIA in consultation with student researchers. A simple random sample was used in 2007 to distribute a paper survey, cover letter and self-addressed stamped envelope with return address to every third house in the Village of Minden. Reminder letters were delivered two weeks after the survey. One day of on-site surveying was also done at the Foodland grocery store. On-site surveying was voluntary and respondents lived both within and outside of the Village of Minden. The total response was 170 surveys, 79 mailed in and 91 collected on-site. The students wrote a comprehensive report that summarized and analyzed the data. The majority of respondents reported mostly driving (56%), but 44% reported mostly or sometimes using AT.²⁰

Three community focus groups were held, and the data gathered was organized into themes. Key themes included planning for active communities, safety, infrastructure and promotion. A summer student replicated the Haliburton observation study, doing counts at 15 locations in and around Minden. As a result of lessons learned in Haliburton, a more consistent approach was applied in the Minden study. Additionally, a survey of students at the local elementary school was done, asking them about their mode of travel to school. As in Haliburton, there were commonly identified negative hotspots in the Minden surveys and focus groups. These were: the bridge on Bobcaygeon Rd, the Highway 35 corridor and the corner of Bobcaygeon and Water St downtown.

The CIA was able to take advantage of additional research opportunities. In 2007, through the CIA, Haliburton and Minden were two of 10 communities that participated in Green Communities Canada's Walkability Roadshow in conjunction with the Walk21 Conference held in Toronto in October 2007. As part of the Roadshow, walkability assessments were done in both villages, and two workshops were held with international experts on creating walkable communities. A final report and case study was completed by the Roadshow team, and many comments and recommendations were consistent with the prior research done by the CIA. For example the crosswalk in Haliburton was identified as a safety concern, and the bridge in Minden was noted as being narrow and in need of repair. The visiting team also noted that political commitment was key for improving walkability, and that "...both towns could easily be developed into walkable centres with careful attention to traffic management, quality provision for pedestrians and clearly marking these centres as distinct from the general highway."²¹

At the same time as the CIA was undertaking the research outlined above, the municipalities were also undertaking separate but related studies, including the First Impressions Community Exchange

Program²² (Minden 2007 and Haliburton 2006), a community visioning exercise (Haliburton, 2007)) and a sports and recreation needs assessment (Minden, 2007).

For the second phase of AT planning (2006 – 09) in Haliburton, the CIA worked with a landscape architect to develop concept illustrations for the four negative hotspots that were identified in the community research. The purpose of the illustrations was to provide a visual image of what those spots could look like with improvements for AT. These were provided to municipal council for their reference and were shown to the public at community events. The illustrations were also an integral piece of the Active Transportation Plan for the Village of Haliburton.

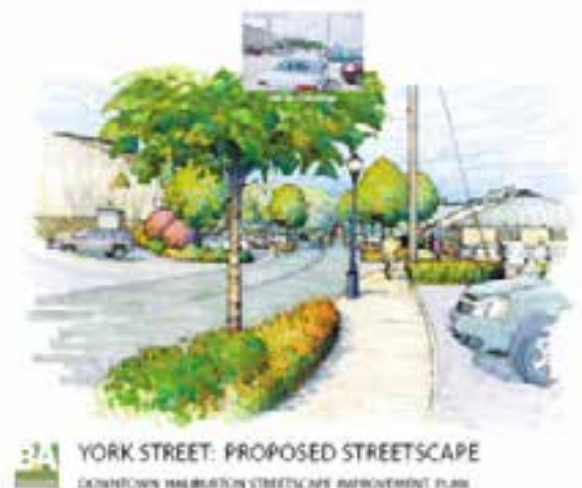
The CIA contracted a consultant to develop an Active Transportation Plan for Minden that pulled together all the research and was completed in July 2008 and presented to Minden Hills council.²³ A separate consultant was contracted to do the same for Haliburton, and in June 2009, an Active Transportation Plan for the Village of Haliburton was completed and presented to the council of Dysart et al.²⁴

In addition to research and planning, over the years the CIA has promoted the benefits of AT to the general public and to municipal officials and staff. Promotional efforts have included the development of walk, bike and be active maps and signs for Haliburton and Minden, a “Park the Car and Get Moving” campaign encouraging residents to walk to do errands in town, support for annual Commuter Challenge and Share the road campaigns, and delegations to councils about the value of creating healthy, active communities.

Table 1 lists highlights of the CIA’s activities. A full list of CIA activities and projects can be found in Appendix A.



Initial architect illustration, York St, Haliburton Village



Architect image for Streetscape Plan, Haliburton Village

TABLE 1: HIGHLIGHTS OF CIA WORK TO PLAN FOR AND PROMOTE AT IN HALIBURTON COUNTY

YEAR	PROJECT
2005	<ul style="list-style-type: none"> Community based research in Haliburton on active transportation activity (surveys, observation counts, focus groups) Initiation of “Park the Car and Get Moving” campaign Summer walk series in Haliburton Concept illustrations of improvements to several identified problem locations
2006	<ul style="list-style-type: none"> Community based research in Minden (observation counts, focus groups) Development of “Walk, Bike and Be Active” maps and signs in Haliburton and Minden
2007	<ul style="list-style-type: none"> AT Survey in Minden Walkability workshops with elementary students Participated in Walk21 Roadshow
2008	<ul style="list-style-type: none"> Completion of Minden Active Transportation Plan and presentation to council Presentation at International Pro Walk Pro Bike Conference in Seattle, WA
2009	<ul style="list-style-type: none"> Completion of Haliburton Active Transportation Plan and presentation to council Submission of recommended policies during the 5-year review process of County and two local municipalities’ official plans Implementation of Share the Road campaign
2010	<ul style="list-style-type: none"> Healthy Active Communities Report #1 – research completed and report distributed to community-at-large and municipal councils Hosted community forums on creating healthy active communities with 8-80 Cities
2011	<ul style="list-style-type: none"> Initiated evaluation strategy, including community survey Developed and distributed Healthy Active Communities Report #2 to municipal councils Engaged new partners in Dorset
2012	<ul style="list-style-type: none"> Completed observation counts in Haliburton and Minden Secured funding for further Share the Road promotion Completed AT research in Dorset



*York St completed,
Haliburton Village*

SECTION 3: PURPOSE OF THE EVALUATION

The purpose of this evaluation project was to measure the impact of the work that the CIA has done to plan for and promote AT between 2005 and 2012, a seven-year period, and to further develop tools and processes to continue to measure impact in the future.

The key questions that the evaluation research sought to answer were:

- What has changed from 2005 to 2012 with respect to policy, planning decisions, infrastructure, attitudes, awareness and behaviour around AT?
- What has been the CIA's contribution to these changes?

Results of the evaluation shall be used to inform future efforts of the CIA in moving forward with AT planning. The findings will also inform the larger AT planning community, where there is a paucity of evidence on the impact of various initiatives on changing actual behaviour.

SECTION 4: STRATEGY AND FRAMEWORK

The evaluation strategy was intended to:

- Evaluate community levels of awareness about AT
- Measure community levels of AT behaviour
- Assess impact on decision makers
- Inventory changes to AT policy and infrastructure
- Identify the CIA's contribution to changes

With these priorities in mind, a framework was developed that identified key areas for analysis. These were: Policy and Planning, Community Design and Infrastructure, Partnership and Collaboration, Education and Awareness, and Travel Behaviour. For each area, specific indicators were listed that would demonstrate changes that had taken place during the evaluation time frame. Analysis tools and questions that would be used to measure the indicators were then identified and developed.

In consultation with an epidemiologist, the following analysis tools were developed:

- A community survey to measure AT behaviour and compare key results with a survey done in Minden in 2007
- Key informant interviews conducted with municipal staff and councillors to get their perspective on the role of the CIA in changes to AT policy and built environments
- An observational study framework to count active travellers in Haliburton and Minden and compare results with data from similar studies done in 2005 and 2007 respectively
- An inventory process to summarize changes to the policy and built environments

TABLE 2: EVALUATION FRAMEWORK

AREA OF FOCUS	INDICATORS	ANALYSIS TOOLS
POLICY & PLANNING	<ul style="list-style-type: none"> Number of key informants that identify the efforts of these groups as factors of influence for changes in policy Policies that exist, recommendations that were adopted Number of plans that exist 	<p>Key informant interviews</p> <p>Policy Review and Summary</p>
COMMUNITY DESIGN & INFRASTRUCTURE	<ul style="list-style-type: none"> Key informants identify CIA and its partners as factors of influence for changes in built environment and infrastructure Length of new trails, sidewalks, paved shoulders. Number of bike racks, benches, signs, other amenities installed Traffic calming measures initiated 	<p>Key informant interviews</p> <p>Inventory and Summary</p>
PARTNERSHIP & COLLABORATION	<ul style="list-style-type: none"> Number of times key informant interviewees mention AT groups as partners Number, role and contribution of partners; number of presentations made and requests to for information about work done in Haliburton County 	<p>Key Informant interviews</p> <p>Inventory and Summary</p>
EDUCATION & AWARENESS	<ul style="list-style-type: none"> Awareness and use of maps and signs; participation in walking and cycling activities and events; awareness of share the road 	<p>Survey</p>
TRAVEL BEHAVIOUR	<ul style="list-style-type: none"> AT mode share Frequency of using AT Number of people observed using AT 	<p>Stats Can</p> <p>Survey</p> <p>Observational Study</p>

SECTION 5: METHODS AND RESULTS

Multiple research methods were used in order to provide a variety of data that could then be analyzed using triangulation. This is done to validate what has been observed. By comparing results across the data sets, a more accurate and valid picture is formed. Four research methods were used: community survey, observational study, key informant interviews and inventory. The methods and results for each are discussed in this section.

5.1 SURVEY

5.1.1 SURVEY METHODS

The 2011 survey was based on the 2007 version that was distributed in Minden. Based on findings from 2007, and in consultation with an epidemiologist, minor revisions were made to key questions for clarity so that responses could still be compared from one year to the other. A sample survey is in Appendix B.

In 2011, a convenience sample was used to gather responses to survey questions primarily through an online survey. However, print copies were also made available at various public locations in both Minden and Haliburton Villages. A cover page preceded the survey which outlined its objectives and that participation was voluntary and anonymous. Respondents were asked not to put their name or anything that might identify them on the survey. Recall that the survey administered in Haliburton in 2005 was treated somewhat as a pilot and questions were adapted repeatedly. Hence the 2005 and 2011 survey questions varied greatly and only responses from Minden in 2007 were used for comparison to the 2011 survey data.

The second question on the 2011 survey asked respondents which village they were most often in, Haliburton or Minden. A note in bold followed this question that read “For the rest of this survey, please answer the following questions related to the village you have chosen above”. This was done in order to be able to separate responses for comparison. Data was analyzed using FluidSurveys, the online program that was used to distribute the survey. A summary report of survey responses for 2011 can be found in Appendix C.

5.1.2 SURVEY RESULTS

Overall, there were 275 surveys completed in 2011. The 2011 sample size of survey participants that identified with the village of Haliburton was 160 and Minden was 115. The gender distribution of the sample was of similar proportion in 2011 as in 2007. In both cases about 35% more women responded to the survey than men. Notwithstanding, according to Statistics Canada there are an equal number of male and female residents in the Township of Minden Hills. The age distribution of the sample was also very similar in both years with the highest number of respondents being between 45-64 years of age.

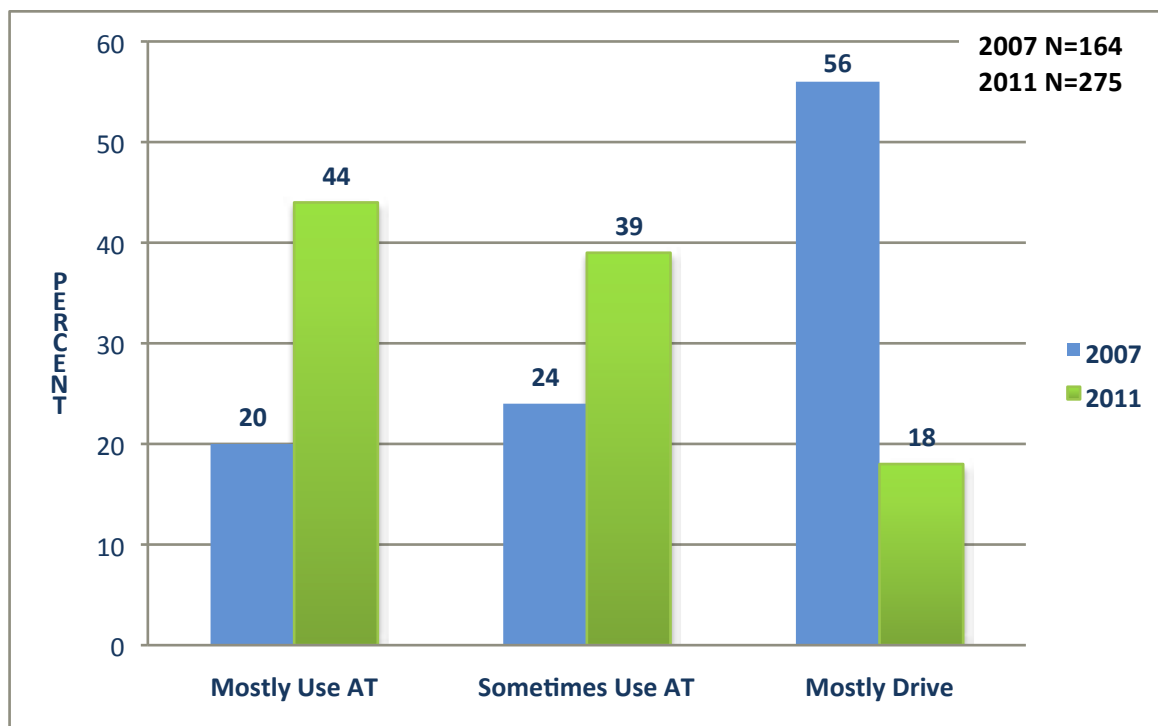
This was consistent with the Township as a whole as the largest demographic is between 45 and 64 years of age.

The following figures show comparative data for:

- Self-reported levels of active transportation
- Primary destinations travelled to using AT
- Barriers to using AT
- Improvements that would encourage more AT

Note: All figures with the exception of figure 1, show results from survey participants that identified with the village of Minden only.

FIGURE 1. PROPORTION OF RESPONDENTS THAT SELF-REPORTED USE OF ACTIVE TRANSPORTATION (AT)



In Figure 1 for 2011, the results reflect all responses regardless of which community (Haliburton or Minden). Results indicate an increase in reported active transportation use in 2011 as compared to 2007.

FIGURE 2. PROPORTION OF PRIMARY DESTINATIONS TRAVELLED TO USING AT

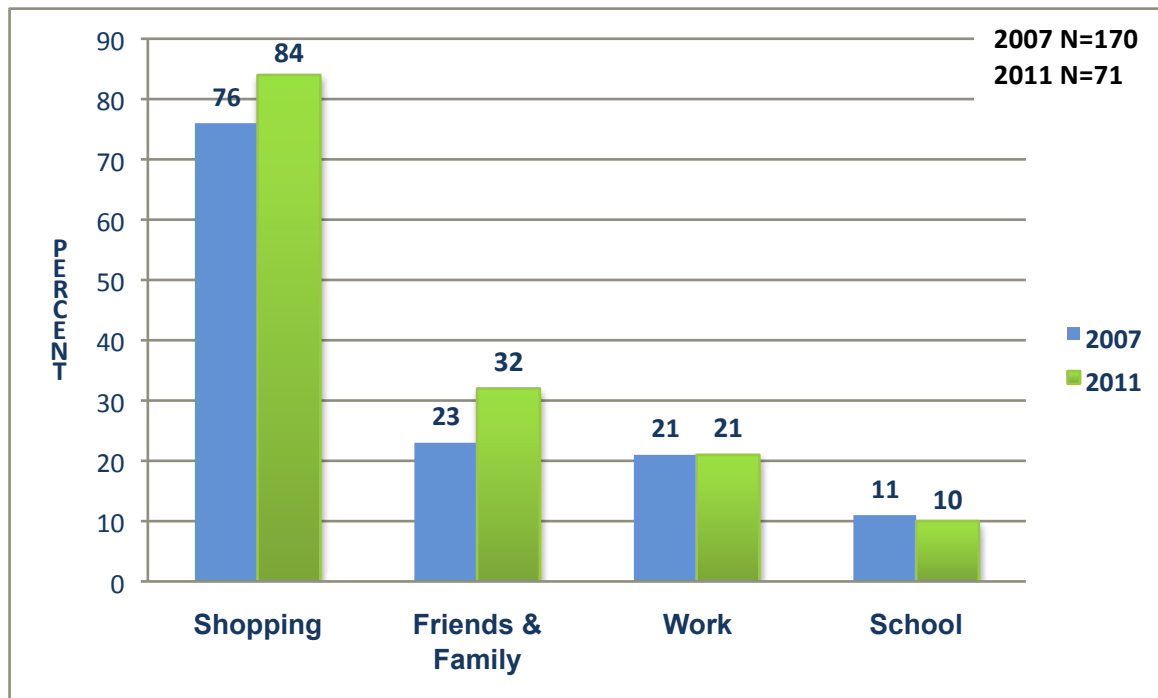


Figure 2 shows the locations that were comparable from 2007 to 2011 and the percentage of people that indicated using active transportation to access that destination. Comparing data collected from each year, we can see that the trend is similar. However, almost 10% more people reported using AT to travel for shopping and to visit with friends and family in 2011.

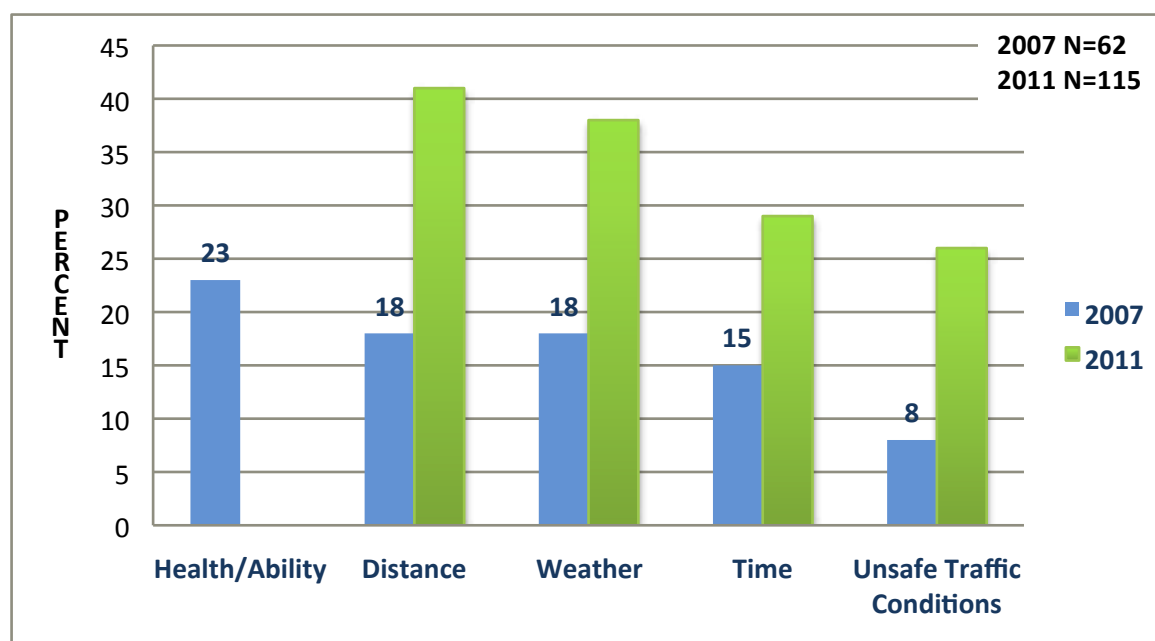


Walking on Riverwalk Trail, Minden



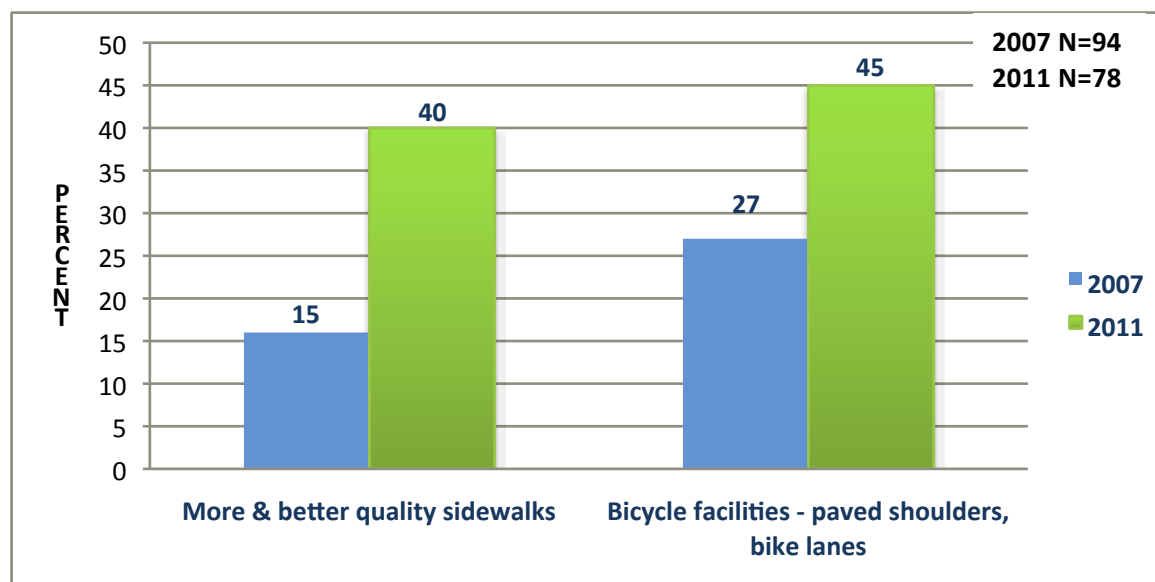
Full bike rack at Fleming College, Haliburton

FIGURE 3. PROPORTION OF RESPONDENTS THAT REPORTED THE TOP FIVE BARRIERS TO USING AT



In 2007 the question about barriers to using active transportation was open ended. However, in 2011 respondents were asked to rank responses in a list in order of importance. Therefore, respondents could choose more than one response. In addition, health and ability was an option in the list in the 2007 survey but was not included in the list of options in the 2011 survey. There were, however, similar trends over time in the barriers reported to using AT in Minden in 2007 and 2011

FIGURE 4. PROPORTION OF RESPONDENTS THAT REPORTED THE TOP TWO THINGS THAT WOULD ENCOURAGE MORE AT



When asked what would make it more likely for people to use active transportation more than they did at present, the top two responses in both years were: more safe cycling facilities such as paved shoulders, paths and bike lanes; and more and better quality sidewalks. In the 2007 survey, the question was open-ended, and these were the most frequently given responses. In 2011, a list of options was provided, and these were the two most frequently selected choices.

Eighty-five percent of survey respondents indicated that they felt it was “somewhat easy” or “very easy” to get around in Haliburton and Minden, and 87% of respondents felt that it was “somewhat safe” or “very safe” to get around.

The survey asked respondents to identify places in Haliburton and Minden that were unsafe for AT, and places that were good for AT. In Minden, Highway 35 stood out as a negative ‘hotspot’, mentioned in over 20 comments. There are no sidewalks on 35, and sidewalks from the village to 35 are either non-existent or end. However, many respondents identified a need for ways to connect via AT to destinations along Highway 35. Other negative hotspots mentioned five or more times were the bridge on Bobcaygeon Road, intersection at Water St. and Bobcaygeon Road and the intersection at Bobcaygeon Road and Newcastle St. In Haliburton, over 25 people identified Highway 118 coming into town as a negative hotspot. There is no sidewalk and high traffic volume. Other negative hotspots mentioned five or more times were County Road 21 out to the Independent Grocery Store, and the corner of York St. and Highway 118 (Maple Ave.).

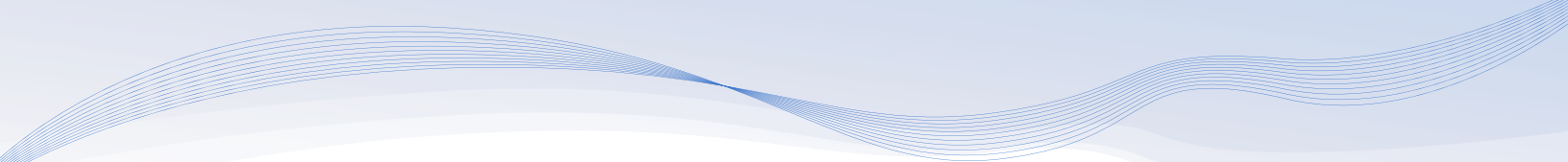
Riverwalk and the Boardwalk are key assets in Minden, identified by over 25 respondents. Eleven people mentioned sidewalks as an asset. Sidewalks, paths and parks were the top Haliburton assets, named by over 40 people. York St. was mentioned by six people. In both Haliburton and Minden, many respondents identified the small size, compactness and proximity of services in the villages as features that made it easier to use AT.

“There are trails in town where I have noticed people who are walking that didn’t used to – some of my work colleagues”

“The number of people using Riverwalk has been fantastic.”

Information was also collected to gauge the impact of community promotion, including awareness of two AT resources that the CIA developed: the Walk, Bike and Be Active map and signage. When asked if they had used the Walk, Bike & Be Active map, the majority of survey respondents answered no (71%). Of the 29% of respondents that answered yes to this question, all but 2% found it “somewhat useful” or “very useful”. Similarly, 77% of survey respondents indicated that they had not used the Walk, Bike and Be Active signage, while 27% indicated that they found the signage “somewhat useful” or “very useful”.

“I park and walk more now due to the promotion”



“It takes public relations for people to rethink modes of transportation and to get people out of cars and onto their feet.”

Survey questions also gauged the level of awareness and effectiveness of the Share the Road campaign intended to educate cyclists and drivers about the rules, rights and responsibilities when sharing space on the road. When asked if they were aware of the Share the Road campaign 85% of survey respondents answered yes. Of this 72% indicated that they found it “somewhat effective” or “very effective”.

5.2 OBSERVATIONAL STUDY

5.2.1 OBSERVATIONAL STUDY METHODS

The purpose of an observational study is to generate a model of general behaviour based on specific activities that have been observed. This observational study was done to gather quantitative data on the level of active transportation activity in the Town of Minden and the Village of Haliburton based on three hours of observed activity in various locations around each town.

In 2005, manual counts of people using AT were done at 27 different locations in Haliburton Village. In 2007, manual counts were done at 16 different locations in Minden. The observation method used in this initial research involved counting all active travelers that could be seen moving in any direction from a particular point of reference.

In 2012, a screenline method developed by Alta Planning & Design, used in their “National Bicycle and Pedestrian Documentation Project”, was used. This method is similar to that used to measure Average Daily Traffic for motor vehicles, whereby there is an imaginary line across a right of way and any person using active travel that crosses the line moving in either direction is counted (see Figure 5 for an example of a screenline). Training and instructions were provided to all observers and a pilot was conducted to test the instructions and the screenline count form (Appendix E). Revisions were made to these tools to improve the user-friendliness. Counts were done at 12 screenline locations in Minden and 11 screenline locations in Haliburton Village. General observations during the count period were also recorded on the form as well as details about weather conditions.

FIGURE 5. EXAMPLE OF A SCREENLINE

■ Screenline



■ ■ ■ ■ ■ Screenline

Observations were done in the same season and at the same time of day that counts had been done in previous years. Fewer locations were chosen due to human resource limitations. Locations were selected based on traditional traffic flows in Minden and Haliburton and were determined from previous observational studies completed in 2005 and 2007 so that results could be compared, as described in the background section. A map of each location was created to clearly identify the screen line (see Appendix F for an example). For maps with all screenline locations, see Appendix G.

Observations took place on Tuesdays, Wednesdays, or Thursdays as these days are not statistically significantly different from one another.²⁵ Observations were done in 15 minute intervals during the following time periods: 8:30 – 9:30am; 12:00 – 1:00pm; 4:30 – 5:30pm, for a total of three hours of observation for each screenline location. Time periods for observation were selected based on the assumption of being peak travel times. Some time frames may have varied slightly due to the schedules of volunteer observers. The three observation sessions were not always done on the same day, or during the same week. All AT activity was tracked on a recording form, and categorized as walking, cycling or other (e.g. skateboard, wheelchair). In the event that a person crossed the screenline more than once during the observation period, they were counted each time. All observations were completed during late June, July, and August 2012.

5.2.2 OBSERVATIONAL STUDY RESULTS

The following tables compare bicycle and pedestrian count results from 2005 to 2012 in Haliburton (Table 3) and 2007 to 2012 in Minden (Table 4). The numbers represent the average number per hour for each count location and include both cyclists and walkers combined. The average number of active travelers for each location was calculated across the three time periods in order to normalize the impact

of peaks in the data. The results in Tables 3 and 4 show that there have been considerable increases in pedestrian and bicyclist activity in both Minden and Haliburton at specific locations. The number of cyclists observed overall was quite small in relation to pedestrians. Some unsafe behavior was observed, such as riding on sidewalks. The majority of cyclists observed wore helmets.

TABLE 3. HALIBURTON OBSERVATION COUNTS, 2005 AND 2012

LOCATIONS	2005	2012	% CHANGE
York St. – 4Cs	93	135	↑
Maple Ave. at Victoria St.	65	26	↓
Maple Ave. at Highland St.	33	76	↑
Highland St. at Maple Ave.	95	280	↑
Highland crosswalk	55	56	↑
Maple Ave. at Mountain St.	86	22	↓
Highland St. at Pine St.	10	19	↑
HLT/21 at Gelert Rd.	92	45	↑
CR21 at Wallings Rd.	9	5	↓
Gelert Rd. at Grass Lake Rd.	10	4	↓
CR21 at Industrial Park Rd.	6	4	↓

Five screenline locations showed increases in active transportation activity. Three of these were considerably higher in 2012. These locations are all downtown and are reflective of people accessing businesses/services. Six screenline locations showed decreases, and of these, three were notably lower in 2012. There was very little active transportation observed outside the downtown.

TABLE 4. MINDEN OBSERVATION COUNTS, 2007 AND 2012

LOCATIONS	2007	2012	% CHANGE
Bobcaygeon Rd. at Parkside Ave.	11	17	↑
Parkside Ave. at Bobcaygeon Rd.	8	27	↑
Bobcaygeon Rd. at Water St.	5	28	↑
Water St. at Bobcaygeon Rd.	5	76	↑
Bobcaygeon Rd. at IGA Rd.	10	7	↓
Prince St. at St. Germaine St.	3	11	↑
Orde St. at Rivercone	5	8	↑
Pritchard Lane at Milne St.	5	24	↑
Newcastle St. at St. Germaine St.	3	6	↑
Highway 35 at Kawartha Dairy/Rotary Park	1	15	↑
Highway 35 at Tim Horton's	6	4	↓

Nine screenline locations showed increases in active transportation activity. Four of these were considerably higher in 2012 compared to 2007. Three of these locations are near downtown, and one is at the Cultural Centre, home to the museum, library, art gallery and environmental centre. The elementary school is also across the street, and much of the observed activity was students walking towards downtown at lunch.

At the intersection of Bobcaygeon Road and Parkside Ave., traffic speed tended to be higher than posted. The area is designated a community safety zone, with a posted speed limit of 40 km/h. Most of the pedestrians observed at this location were students, and most of the activity was during the mid-day time slot. Many students were observed 'jaywalking' – crossing the street at places other than the crosswalk, or crossing without using the pedestrian signal.

5.3 KEY INFORMANT INTERVIEWS

5.3.1 KEY INFORMANT INTERVIEW METHODS

Key informant interviews with municipal staff and councillors were chosen as a way to gather feedback and qualitative data on the impact of the work of the CIA from the perspective of municipal and county government staff and politicians. In terms of the overall evaluation strategy, the key informant interviews provided information about observed changes to active transportation infrastructure, policies, plans and activity. Through the interview responses, the degree of awareness of these changes within the municipal sector could be assessed. The key informants were also in a position to comment on the factors of influence on these changes. One of the indicators of impact of the work of the CIA was the frequency with which the key informants identified the CIA as a factor of influence.

A cross-section of municipal perspectives was desirable, and therefore a list of potential interviewees was established based on the following criteria:

- One councilor and one staff from each of: Highlands East, Algonquin Highlands, County; two councilors and one staff from each of: Dysart et al and Minden Hills (because they had been the focus of most of the CIA's work)
- Started with people identified as municipal liaisons 2009
- Sat on current council, and sat on previous council (i.e. since at least 2006)
- Cross-section of staff roles represented (i.e. planning, administration, transportation)
- Municipal councilors who also sat on county council could answer from both perspectives

Members of the CIA consulted with the epidemiologist at the HKPR District Health Unit, who suggested that interviews be conducted to saturation, the point at which responses from interviewees become repetitive. Twelve interviews were planned. The interviewer was a staff person from a partner organization who was also a member of the CIA, and had research and interview skills. The interviewer provided time in-kind to conduct the interviews and was not remunerated for this work.

The interviewer sent an email invitation to participate to the people on the list, and initially twelve people agreed to participate. Three were unable to follow through for scheduling reasons. In the end, nine interviews were completed, with representation from all four municipalities and the county, both council members and staff. The breakdown was as follows:

- Township of Algonquin Highlands - 1
- Municipality of Dysart et al – 3
- Municipality of Highlands East – 1
- Township of Minden Hills – 3
- County of Haliburton – 1

The years of experience that interviewees had with the municipality/county ranged from five to 27 years.

Standardized, open-ended interviews were conducted with predetermined questions in order to ensure consistency across interviews.²⁶ Participants were provided with the questions prior to the interview and signed a consent form to participate. Interviews took place in November and December 2011, were conducted over the phone and took 30 to 45 minutes each. Responses were recorded in writing by the interviewer. Interview questions and the participant consent form can be found in Appendices H and I respectively.

Each interview was later transcribed by the interviewer. The transcriptions were then analyzed by a team of three, which included the interviewer and two other members of the CIA. Content analysis “refers to any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings”.²⁷ The analysis was an inductive process where findings emerged as three researchers interacted with the data, sorting it into categories, identifying themes and highlighting key comments.

5.3.2 KEY INFORMANT INTERVIEW RESULTS

Four broad theme areas were identified from the key informant interview data: outcomes, which are short- and medium-term changes that have taken place; impacts which are changes that are broader in scope and may take longer to emerge; identifying who contributes to AT work and finally, future opportunities to position AT in Haliburton County.

THEME 1 : OUTCOMES

A number of outcomes were evident from the key informant data, such as increases in people walking and biking in Haliburton Village and Minden; changes to policies and implementation of plans to support AT; infrastructure improvements; and increased awareness about AT.

INCREASES IN WALKING & BIKING

Information emerged from the interviews about increases in walking and biking. Although it is anecdotal, it is still a valuable indicator of behavior change in Minden and Haliburton Village.

“There are trails in town where I have noticed people who are walking that didn’t used to – some of my work colleagues.”

“The increased use of York St. is huge! There was no definition in terms of where the road and sidewalk began and ended previously. Now people use the crossings and stand and wait for cars to stop. There are also more people cycling around town generally, especially to the College.

“The number of people using Riverwalk has been fantastic. It is a 2 km trek that people drive to and walk and lots of people do this!”

“I can say that my family rode to the Highland Games this summer and we would not have done that in the past. Our employees at our business also benefit from the changes up to Industrial Park Rd. as they started walking more on breaks and to do errands like going to the post office.”

CHANGES TO POLICIES & PLANNING

Responses from interviewees indicated that new and improved policies to support active transportation were being included in Official Plans through the 5 year review process. Responses also suggested that AT plans were useful resources for planning and that AT was being incorporated into future infrastructure planning.

“We are looking at our OP review now. The new one will have pieces on active transportation, and healthy, physically active communities. There are no policies currently but there is support.”

“The Official Plan review is currently underway and while there are some things to support active transportation in it already, it is likely that there will be more after this.”

“[We are] incorporating active transportation into our planning in the village.”

“The AT Plan was a good strategic move as the visuals really helped.”

“AT Plans for Haliburton and Minden have been drawn on and they really helped to change the way councils have approached their work and direction.”

INFRASTRUCTURE IMPROVEMENTS

Respondents noted that improvements to existing infrastructure such as the resurfacing of trails as well as the development of new trails improved connectivity and provided safer spaces for people to travel. In addition, amenities such as bike racks and benches also improved the conditions for cycling and walking.

“Discussion led to the extension of the pathway to Patient News and the resurfacing of the Rail Trail to school and for other connections.”

“Wallings Rd. to Industrial Park Rd. also has a nice new surface to walk safely.”

“There are better trails and places to walk to work, the hospital, shopping, school, errands now, so people use them to get stuff done during their day.”

“There are the bike racks at the library in Minden and in Haliburton, making it more convenient for people to cycle. Signage with the kiosks too, helps people understand their options. They encourage people to park their car and amble.”

“Riverwalk and the Boardwalk open up areas and links to downtown.”

INCREASED AWARENESS AND EDUCATION

When asked how they would rate their overall awareness of active transportation initiatives in their municipality/county on a scale of 1-5, where 1=low and 5=high, the average response was 3.8. Respondents reported that promotion and public education efforts had been effective in encouraging people to be more physically active.

“Just being receptive to the idea or concept. I park and walk more now due to the promotion.”

“I think that there is more awareness of trails and the desire to use them. People are becoming more physically active as there is more public education around things like obesity and diabetes. Parents and kids are using them more for a healthy lifestyle.”

“There is more coverage in the newspaper – it takes public relations for people to rethink modes of transportation and to get people out of cars and onto their feet.”

“There is more awareness of active transportation based on the work of the CIA, such as their maps and surveys, their activities in Minden and Haliburton, and in terms of their upcoming work in Dorset.”

THEME 2 : IMPACTS

Two key impacts were identified from the key informant data: 1) a cultural shift within municipalities and decision makers to incorporate AT into planning, policy and projects; and 2) the CIA being identified as a credible resource.

CULTURAL SHIFT

It is evident from the interview responses that AT is being incorporated into planning and development conversations. For example, politicians are talking about active transportation in the course of conversations about economic development and road rehabilitation projects.

"[My role] has been to ensure that we are all thinking about active transportation when making decisions regarding roads and sidewalks."

"There have been lots of conversations about sidewalks – just last week at the economic development committee meeting for example. We now talk about repaving all of the roads and widening the sidewalks too for wheelchairs and scooters."

"It's become part of the fabric of the community. We are at this point right now where you can see that the threads of active transportation are there."

CIA AS A CREDIBLE RESOURCE

Interview participants reported that the CIA contributed to the changes around AT in a number of ways. For example, respondents indicated that the CIA acted as the champion for AT and played an important role in raising awareness as well as increasing understanding among municipal staff and decision makers. They also noted that the role of the CIA as an independent body in presenting the needs, and engaging and educating politicians was very important. Respondents indicated that the CIA was seen as playing a leadership role in making changes on a number of levels to improve the conditions for AT. Furthermore, that through their efforts they were able to build capacity for work to be done around AT in small rural municipalities where there was a lack of resources (human and financial). Respondents reported that the CIA played an important role as a resource to the community as well as in producing documents that were helpful in planning for AT.

"[The CIA] was very effective...have been a huge part of things...making changes happen sooner."

"...we rely on people like the CIA committee to bring awareness about what we could and should be doing."

"Their efforts are really important in a small rural jurisdiction where there is a lack of resources."

"To have them as an independent body to provide the municipal and county levels with direction and to highlight best practices and bring resources to the table is very effective."

"The CIA have been great a partner for council and for lobbying other levels of government. Lots of projects would not have been put into place if it weren't for them."

"The CIA helped highlight and build on this streetscape work and made it a stronger project which was valued from a municipal perspective."

When asked how much they thought the Communities In Action Committee had contributed to the observed changes in the community related to active transportation, the average response on a scale of 1-5, where 1 = no contribution, i.e., the changes would have happened without the CIA, and 5 = very important contribution, i.e., the changes would not have emerged at all without the CIA, the average response was 4.2.

When asked how important they thought the Communities In Action Committee will be to future planning/work around active transportation in Haliburton County, and in their municipality, where 1 = not important at all, and 5 = very important, the average response was 4.2.

THEME 3 : WHO ELSE CONTRIBUTES TO IMPROVING CONDITIONS FOR AT IN HALIBURTON COUNTY?

The roles that various organizations, agencies and governments play with respect to their contributions to changes around AT were identified in the key informant data.

ROLE OF OTHER COMMUNITY GROUPS

Respondents indicated that community groups other than the CIA have played a role in initiating projects, raising awareness about issues related to AT through community campaigns and engaging in the political process. They also played a key role as funding partner for infrastructure such as bike racks.

“A lot of planning has been driven by local initiatives like Riverwalk and maximizing the river as an asset.”

“The cycling and biking groups have been ready to step up to the plate and do the volunteer work that is needed.”

“The Cycling Coalition also presented the Share the Road idea and raised awareness about the issues.”

“There is a really active volunteer community here and we are the richer for it! There are lots of opportunities to, and it is more effective for, community groups to bring things forward to the political process.”

ROLE OF MUNICIPALITIES

Interview participants also reported that municipalities contributed to changes around AT by having a desire to create more attractive spaces and places for walkers and cyclists within the villages. For example, they listened to needs expressed in the community for changes to the built environment and responded to those needs as opportunities arose. They also noted that municipalities considered safety when reviewing site plans and designs for new developments. Respondents spoke about the infrastructure improvements to support AT as a strategic priority. In addition they noted that municipalities created staff positions, which built capacity to support AT initiatives. It was further reported that municipalities are largely responsible for the built environment; making decisions regarding land use, development and maintenance, and contributing funds to make things happen.

“The desire to do something within the downtown core already existed – it is so much more attractive now. So it was a win-win situation.”

“The previous council put completing Riverwalk as a top strategic priority.”

“Creating a Recreation Coordinator position and putting the person in place has been key. This position helps to strengthen AT concepts and infrastructure implementation.”

“Funding is the biggest opportunity and you need that to make things happen. The pre-planning was done so that it could be drawn on quickly and implemented in a short timeframe.”

ROLE OF PROVINCIAL AND FEDERAL GOVERNMENT

Respondents indicated that the primary role that the Ontario provincial and federal governments play is as project funders. The provincial government also funds support for AT indirectly through health units, which have a mandate to do this work, as well as through grant programs such as the Healthy Communities Fund (Ontario Ministry of Health and Long Term Care). The province also sets out provincial interests that guide land use in municipalities, which include policies that support healthy, active communities through AT planning.

“It’s all provincial really. The province has provided funding to do things at the municipal and county levels and to the health unit.”

“Funding for infrastructure through gas tax money and the Trillium Foundation.”

“The stimulus money helped to pull the project off the shelf and move it forward.”

*“The province as they recognize [AT] in their **Provincial Policy Statement**, and the need for efficiencies.”*

THEME 4 : FUTURE OPPORTUNITIES TO POSITION AT

Respondents also indicated that future support for AT could be strategically positioned to enhance accessibility as this is mandated and municipalities must meet accessibility standards in the coming years. Another way that the case for investments in AT could be positioned according to interview respondents is as a tourism draw.

ACCESSIBILITY

“The accessibility theme across the province has increased the spotlight on people with disabilities. Municipalities have to plan for this because it is coming our way and we need to comply with the Ontarians with Disabilities Act.”

“We need to think about marketing our municipality to accessibility organizations for tourism. Variety Village, for example, has Riverwalk mentioned on their website...and the organization is talking about a Summer 2012 program and making Minden a destination for people with disabilities.”

“The population is aging and so this has become an economic strategy for our municipality – making it a destination for retirees and creating places for walking has influenced our whole decision-making.”

TOURISM

“Municipal and county tourism. A trail committee just formed in our municipality and it has recognized that trails are very appealing to visitors regardless of the time of year. It provides connections to other municipalities and through the municipality. The priority for this municipality is: “if it’s there, they will come.”

“If this can get off the ground the benefits are county-wide in terms of tourism – [AT] is financially and aesthetically pleasing.”

“Need to possibly make the [case for] recreation and economic benefits as building AT infrastructure also benefits recreation. There are tourism benefits as people choose a vacation place for its biking.”

5.4 INVENTORY

5.4.1 INVENTORY METHODS

The following projects, activities and observed changes with respect to active transportation in Haliburton County were inventoried for the time period 2005 – 2012. The inventory was intended to address specific questions identified below.

- Policies and Plans: what new policies exist to support AT?
- Community Design and Infrastructure: What infrastructure has been completed?
- Partnership and Collaboration: Who are contributing partners? How have they contributed and how often?
- Education and Awareness: What and how many walking and cycling events and activities have taken place?

Four official plans were updated during the study time frame (County of Haliburton, Municipality of Dysart et al., Township of Algonquin Highlands, Municipality of Highlands East). These plans were reviewed, and any new policies that supported active transportation were identified.

CIA minutes served as a source for inventory information on infrastructure, partnership/collaboration and education/awareness. Because there are representatives on the CIA who are involved with municipal and county infrastructure projects, this information has been captured in the minutes. Annual reports completed by the CIA chair as part of her role at the health unit contributed as well. Additionally, funding applications provided information on partner roles and contributions. On-the-ground inventories were also done in conjunction with development of walking maps for Haliburton, Minden and Dorset.

5.4.2 INVENTORY RESULTS

The complete inventory can be found in Appendix D.

POLICIES AND PLANS

The CIA and its partners participated in all official plan reviews by attending public consultations, and submitting detailed recommendations for policy changes. In all cases, new policies were added. There are new AT-friendly policies in the Haliburton County Official Plan, as recommended by the CIA. The CIA's recommendations also included policy wording that was not AT specific, but related to the goal of creating healthy communities. The revised County plan's policies identified in the inventory reflect the intent of the recommendations submitted. One significant addition was a policy that makes reference to the Cycling Master Plan, and also directs municipalities to "have regard for the objectives" in the plan.

The Municipality of Dysart et al's Official Plan included a new section specific to active transportation with eight policies around AT and healthy communities. Policies were not inserted verbatim, but incorporated the intent of the CIA's recommendations. Additionally, new policies referenced the Active Transportation Plan for Haliburton Village, Cycling Master Plan and the Active Communities Charter, which was adopted by council in 2009.

In the Township of Algonquin Highlands and Highlands East Official Plan amendments, the CIA's recommendations were included verbatim. The Minden Hills Official Plan review is in process, and due for completion in 2013. The CIA has submitted comments and is participating in the review.

COMMUNITY DESIGN AND INFRASTRUCTURE

Several major infrastructure projects took place during the study timeframe. Phase 1 of the Haliburton Streetscape project was completed in 2011, with York Street improvements that included the addition of sidewalks, new street lighting, bike racks and curbs to delineate traffic lanes and parking areas. There were also new destinations on York St: the 4C's and Food Bank, and the new library. These features all added to the existing resources such as Head Lake Park, Rails End Gallery and retail services to make

York St. a much more significant and attractive destination. Phase 2 got underway in 2012 and included repaving of Highland St., rebuilding sidewalks and curbs, burying hydro lines, new lighting, installing decorative brickwork and new street furniture.

In Minden, the most significant change in infrastructure to support AT has been the completion of Riverwalk and the Boardwalk. Riverwalk is a paved path along both sides of the Gull River in town with a pedestrian bridge that connects the paths to form a 2 km loop. This was completed in 2009 as part of the Township's sesquicentennial celebration. In addition to providing a walking route for recreation and exercise, the pedestrian bridge also provides a vital AT connection between a residential neighbourhood on one side of the river with the commercial area downtown on the other. The Boardwalk, completed in 2011, connects Riverwalk and the downtown to the cultural centre and recreation facilities (arena, curling club and playing fields).

The county began including paved shoulders on major road rehabilitation projects. A total of approximately 30 km of paved shoulder have been added on six different county roads. Share the Road signs were installed on county and municipal roads (86). Other amenities that were added around the county include benches, bike racks, lighting.

PARTNERSHIPS AND COLLABORATION

The CIA has collaborated with numerous community partners. Sometimes the CIA has been the lead on projects, seeking funding and doing coordination. Other times the CIA has been a contributing partner on another group's initiatives. During the evaluation timeframe the CIA has partnered with twenty-four groups and organizations. Some of these have been one-time project partnerships, while other partners have been engaged on multiple occasions. For example, the HKPR District Health Unit has been involved in all CIA activities. The U-Links Centre for Community Based Research has also been a significant partner on numerous activities. Partners have made funding contributions, and numerous in-kind contributions such as: staff time, administrative support, meeting space, and professional expertise.

The CIA has also collaborated with groups outside of Haliburton County by sharing the knowledge, expertise and resources that members have acquired over time. During the study period, members of the CIA made 18 presentations at conferences, workshops and webinars, primarily across Ontario, but also in the US and Nova Scotia. Webinars reached a broad audience from across North America. Nine regions or municipalities contacted the chair for information about CIA projects, most notably the Share the Road campaign, on which the CIA was a partner. Three municipalities have adapted the Haliburton County Share the Road brochure for their own use. The CIA has been noted in three published case studies about active transportation in rural communities.

Projects on which the CIA has partnered have also received two awards from national organizations. Green Communities Canada recognized Minden and Haliburton in 2010 with an Ontario Walkability Award of Excellence for their efforts in creating walkable communities. The County of Haliburton was the recipient of a 2010 Sustainable Communities Award from the Federation of Canadian Municipalities for the Share the Road campaign.

EDUCATION AND AWARENESS

Since 2005, numerous promotion, education and encouragement activities have taken place, led by the CIA and other community partners. Events are important ways to raise the profile of active transportation, to educate people about its benefits, and to provide the opportunity to participate. The World Record Walk (2007) provided the opportunity for all municipalities in the county to participate and promote walking. The annual Shifting Gears Cycling Festival and workshops have provided skill building, as well as opportunities to introduce cyclists to local routes. Bike to School week and the Commuter Challenge have been implemented to encourage children and adults to try active transportation. A Walk & Roll Guide to Active Transportation in Rural Communities was created and distributed to support people interested in trying AT.



Cycling in Haliburton Village



Getting ready to ride in Head Lake Park, Haliburton



One of the many sculptures along the Riverwalk Trail in Minden

SECTION 6: STRENGTHS AND LIMITATIONS

It is important to note that the authors oversaw the research and are members of the CIA. They have been involved in the development and implementation of the projects that were evaluated, and as such have an interest in the study findings. The authors acknowledge this as a source of potential bias which may shape the interpretation of the literature and findings. However, it also lends a level of expertise on the subject matter, which may enable a greater level of detail in the data analysis. The strength of this study lies in the mix of different evaluation methods, which included quantitative and qualitative data, self-reported and observed behaviours. The range of approaches helps to provide as much balance to the data as possible. Direct quotes have also been used to illustrate the findings. By combining methods, triangulation strengthens a study because each method yields different aspects of reality²⁸.

However, there are some limitations associated with each research method and these are described below. The ways in which limitations for each method were addressed are described.

SURVEY

Due to human resource limitations in 2011, an online survey was chosen rather than delivering copies of the survey door to door as was done in Minden in 2007. A convenience sample may yield different results than a random sample, as respondents that relate to the topic may be more inclined to be proactive about going online to complete the survey. To reach the broadest possible audience, the survey was promoted widely in newspaper ads, email blasts, social media, and posters. In order to make it accessible to people without computer access, paper copies were made available in public places in both Haliburton Village and Minden. The survey questions were edited and updated for clarity, and therefore were somewhat different from those asked in 2007. However, the intent of certain key questions was maintained in order to enable comparisons. The impact of the question wording changes on response is unknown. It is important to note that the demographic breakdown of survey respondents was very similar in 2011.

OBSERVATIONAL STUDIES

Counts were done of people using active transportation only and therefore the 'denominator' or the overall number of people in town on the day of the counts remains unknown. There are other factors of influence that may have contributed to changes in AT activity over time, such as population changes, weather and time of year. Community events may generate increased pedestrian activity. Three Haliburton counts in 2012 took place on the day of a carnival. Community events were not documented in previous observational studies, so it is unknown whether or not there was an effect on count data.

The protocol for counting was slightly different in 2012, with a defined screenline being used to count active travelers at each location, versus counting people travelling from a variety of directions, which was the approach used in 2005/07. This means that in 2005 some people may have been counted who would not have crossed a defined screenline in 2012, and could also account for decreases in numbers at some locations. The counts in 2005 were also not conducted as systematically as they were in 2012.

Not all locations were counted for the same length of time, or for the same time periods. Some locations did not get counted three times. Therefore, comparisons between count data in 2005 and 2012 should be interpreted with caution. Only count data from 2005/07 that matched the screenline locations from 2012 were used to compare levels of AT activity. Counts in 2012 were done at the same time of year as those done in 2005/07 to mitigate the impact of seasonal differences in travel behavior.

Counts in 2012 were conducted by six individuals and therefore there is the possibility of inconsistency in the way that the data was collected. Furthermore, not all of the three hours of observation were done on the same day. Schedules dictated the availability of people involved in the observation study.

To help ensure consistency in approach, in 2012 training materials were provided and reviewed with all observers prior to doing counts. Maps, a standard screenline count form and instructions were provided. A pilot was conducted to test the instructions and the screenline count form, and revisions were made to these tools to improve upon their user-friendliness.

KEY INFORMANT INTERVIEWS

In qualitative research, the researcher is the primary data collection instrument, and therefore prior experience, values, biases, and assumptions need to be acknowledged.²⁹ Charmaz contends that “theoretical sensitivity”, a term that Glaser and Strauss coined, accounts for the fact that researchers are not clean slates and come with prior knowledge and experience that enable them to see relevant phenomena in the data.³⁰ In this case, the interviewer was a member of the Communities in Action Committee and had knowledge of, and experience in, planning for active transportation as well as with the work of the CIA. It is possible that some of the key informants were aware of this association and that this may have influenced them in providing more socially desirable responses.

In order to maintain consistency, one individual conducted all of the interviews and followed a standard research protocol. Interviews were done to saturation until the information became somewhat repetitive. Three people collectively reviewed and analyzed the data on two different occasions, where coding and themes were discussed, and consensus was reached.

Criteria were established to select key informants. A purposeful sample may yield different results than a random sample. However, it was important to hear from municipal staff and councillors that were familiar with the work of the CIA in order to gain any insight into their contribution to change. The criteria were stated upfront and key informants were made aware that participation in the interview was voluntary.

SECTION 7: DISCUSSION

The previous sections in this report have illustrated the changes that have taken place from 2005-2012 with respect to policies and planning; infrastructure; community awareness; and actual levels of AT activity. This section of the report will discuss the evidence from the evaluation research to illuminate the second key research question: *What has been the CIA's contribution to these changes?*

Table 5 shows that there have been many new policies and investments that support AT during the study period. The task here is to make connections between the activities of the CIA highlighted in Table 1, page 6, and detailed in Appendix A, to these changes, as well as observed changes in AT behaviour.



*Haliburton downtown
crosswalk, before streetscape
improvements*



*Haliburton downtown
crosswalk, after streetscape
improvements*

TABLE 5. OBSERVED CHANGES RE: ACTIVE TRANSPORTATION IN HALIBURTON COUNTY

YEAR	POLICY & PLANNING	COMMUNITY DESIGN & INFRASTRUCTURE
2006	<ul style="list-style-type: none"> Haliburton BIA creates Built Form Guidelines for downtown 	<ul style="list-style-type: none"> 4 Walk Bike & Be Active signs installed in parking lots in Haliburton 1 bike rack purchased and installed in Head Lake Park by Dysart
2007	<ul style="list-style-type: none"> International Charter for Walking adopted by Minden Hills council Head lake Trail committee becomes a committee of Dysart, from Trails and Tours 	<ul style="list-style-type: none"> 4 signs installed in Minden Trail improvements on Head Lake Trail Continuation of Riverwalk construction
2008	<ul style="list-style-type: none"> Dysart retains Basterfield and Associates to complete a Streetscape Plan for the Village Cycling Master Plan linked to county website AT Plan on Minden Hills website 	<ul style="list-style-type: none"> Paved shoulders: County Road 21 Installation of art bike racks in Minden and Haliburton Trail to Patient News built Riverwalk Bridge construction begins – footings installed Walking Trail developed in Gooderham Improvements to Head Lake Trail continued Barrier gates installed at key locations to keep ATV's off Head Lake trail
2009	<ul style="list-style-type: none"> Active Communities Charter adopted by Dysart and Highlands East Haliburton Streetscape Plan completed and released 	<ul style="list-style-type: none"> 85 Share the Road signs installed 2 bike racks purchased and installed in each municipality Riverwalk Logger's Crossing pedestrian bridge installed Paved shoulders: County Roads 21, 503, 1
2010	<ul style="list-style-type: none"> New policies re: Active transportation, healthy, active communities, walking and cycling included in the Dysart and Algonquin Highlands Official Plans New policy in County OP referring to Cycling Master Plan and directing municipalities to "have regard for" it in their OP's 	<ul style="list-style-type: none"> Haliburton Streetscape phase 1 – York St and Cenotaph, includes: new sidewalk, curbs, plantings, decorative paving, pedestrian bulbouts and courtesy crosswalks, benches, Post and ring bike racks Two kiosks from Trails and Tours installed on Riverwalk. Benches installed. Pedestrian crossing installed on Bobcaygeon Rd by the school Paved shoulders: County Roads 1, 121, 648 and Deep Bay Road
2011	<ul style="list-style-type: none"> Active Communities Charter adopted by Algonquin Highlands 	<ul style="list-style-type: none"> Riverwalk Trail completed, including footbridge over Clergy Creek, pedestrian scale lighting, more sculptures, benches Boardwalk to Cultural Centre in Minden completed. Paved Shoulders: County Road 121
2012	<ul style="list-style-type: none"> Highlands East Official Plan amendment includes policies re: AT Draft Minden OP amendment includes policies re: AT Minden Downtown Revitalization Plan completed 	<ul style="list-style-type: none"> Highland Street Improvements completed in Haliburton: hydro lines buried, sidewalks redone, decorative paving stones, new plantings, post and ring bike racks, benches Bobcaygeon Road improvements completed in Minden: widened sidewalks, coloured concrete, façade of planters restored

Figure 6 provides a visual map for the discussion that follows and illustrates the relationships between CIA actions, observed and measured changes, and external influences. The discussion draws from the data gathered through the research to describe the impact of these relationships (indicated by arrows).

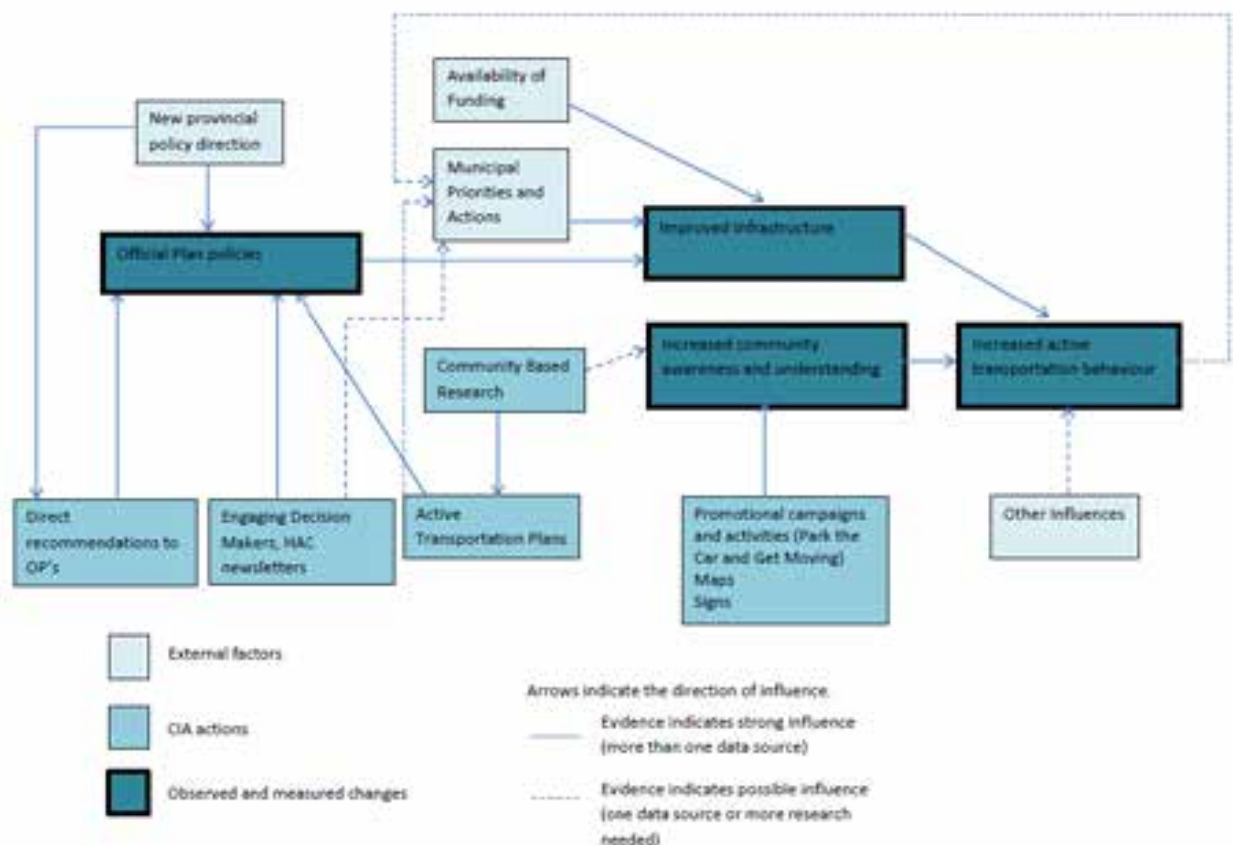


Figure 6: Roadmap for Discussion

Over the years the CIA has taken a two-pronged approach to influence opinion, awareness and action on active transportation, targeting both municipalities and the general community, with the ultimate end-goal of increasing AT behaviour. Municipalities hold the key in terms of making decisions to invest in active transportation infrastructure and policies. It is far more likely that they will choose to do so when there is interest, support and demand at a community level. Therefore, the first 'prong' of CIA influence was to increase community awareness of AT and stimulate more AT activity in order to demonstrate community demand and need.

In terms of AT behaviour, the observation counts in Haliburton and Minden show an increase in AT activity in several key locations (Tables 3 and 4, p. 17). There were multiple promotional and encouragement strategies used during the study period, so it is not possible to attribute observed behaviour changes to any one particular initiative. However, the count data is supported by survey results from Minden. There was an increase in self-reported AT activity from the 2007 survey (20%) to the 2011 survey (44%). Key informants also noted observed increases in walking and biking.

Even though it is not possible to make direct attribution, the evidence from this study supports the claim that the promotional efforts of the CIA to increase awareness of AT had success, and have played some role in influencing individual travel choices when in the villages. Increased community awareness and active transportation activity may also serve to influence municipal priorities for further investment by showing that interest and demand exists.

Promotional efforts are also important for changing attitudes, awareness, understanding and skills of potential users. The CIA has used several strategies to raise community awareness of why, where and how to use active transportation, so-called 'soft measures', with the goal of increasing AT activity. Strategies have included promotional campaigns (e.g. Park the Car and Get Moving), development of AT maps and regular media presence in local newspapers and on radio. Conducting community-based research provided a means to gather input from the public as well as raise awareness of active transportation. The CIA has also partnered on initiatives such as the Share the Road campaign and Commuter Challenge. Several comments from the key informants provide evidence that the CIA's promotional efforts are seen as successful.

Survey data also indicates that promotional initiatives such as the Share the Road campaign were effective (full results in Appendix C). Evidence in the literature about the effectiveness of community-wide promotional interventions is limited.³¹ However, there is some suggestion that combined strategies and many factors are important for creating an attractive walking and cycling environment, including "...coordinated implementation of multi-faceted and mutually reinforcing policies and programs..."³² The findings from this study indicate that the collection of strategies as a whole has had an impact on community awareness.

Community events are also likely to generate increased pedestrian activity. In Haliburton, two of the York St. counts and one of the Highland/Maple and Maple/Highland counts took place on the day of the Rotary carnival. Therefore, the numbers may be higher than they would have been on an average summer day. However, this speaks to the importance of events to attract people into town, and of ensuring that there are safe, comfortable and inviting ways for people to move around on foot. While the event may be the initial attractor, the levels of activity suggest that people also traveled elsewhere within the downtown once they were in town, thus contributing to economic activity.

The availability of safer and more convenient infrastructure is another important factor that contributes to changing behavior at a community level. The survey is revealing in this regard. "Unsafe Traffic Conditions" was cited as a significant barrier to using AT, and was the only barrier in the top five that was not individual dependent (health, time) or beyond the scope of change (weather, distance) (Fig. 3, p. 13). Similarly, infrastructure improvements were identified as the top things that would encourage more AT: more and better quality sidewalks, and bicycle facilities such as paved shoulders and bike lanes (Fig. 4, p. 13). Both lack of infrastructure and safety concerns (which can be ameliorated with adequate infrastructure) are cited in the literature as common barriers to the uptake of walking and cycling.³³ There are likely differences between perceptions of safety when walking versus cycling. This study did not differentiate between the two, instead grouping them both under 'active transportation'.

Significantly more walking activity was observed than cycling. However there were a number of comments in the survey about the need for paved shoulders or bike lanes to encourage more cycling.

The impact of infrastructure is especially apparent in Haliburton on York St. where streetscape improvements were done in 2011, and pedestrian activity significantly increased from 2005 (93) to 2012 (135)¹. Additionally, two new destinations of significance were built during the study period, the library and food bank/thrift shop, which also likely accounts for increased numbers of pedestrians. The Head Lake Trail system was also frequently identified on the survey as a key asset for getting more people walking. Many pedestrians also parked their car and then walked from the York St. lot. Having safe, convenient and obvious access from York St. to Highland St. is an important way to encourage people to park and then walk to get around the downtown. Another common parking spot to access downtown was along Highway 118 adjacent to the Dysart et al municipal office. (See the map of Haliburton Village in Appendix G).

The compact nature of small towns such as Haliburton and Minden makes it easier for people to move around on foot. Many services are located within the main downtown block in close proximity to one another and public parking. It is not surprising that the intersection of Highland and Maple, the main downtown intersection in Haliburton, has a high volume of pedestrian traffic at midday in the summer. It is the height of tourist season, and businesses are open. The lower volume of activity in the morning (8:30 – 9:30) is likely due in part to the fact that most stores and services are not open at this hour. A large volume of foot traffic at this hour was going in and out of the CIBC bank machine at this intersection, and appeared to be people on their way to work.

Similarly, in Minden, downtown screenlines had the highest levels of AT activity. The location of public parking appeared to have an influence on pedestrian activity. A large proportion of people observed were coming from where they parked their cars, either on Water St. or in the municipal lot located behind the main street, and walking into the downtown. (See the map of Minden in Appendix G).

There are other variables that may account for some of the observed increases in AT activity in the two villages. There were slight population increases from 16,147 (2006) to 17,026 (2011) for the county, and increases of 8% in Dysart and 2% in Minden over this same time period. There may also have been an increase in overall tourism activity, however this data is not available so the impact is unknown.

Whereas the downtown core had very high levels of AT activity, the county roads and provincial highways on the outskirts of town illustrate the influence of inadequate infrastructure. These roads have higher volumes and speeds of traffic which can deter AT. In Haliburton, the screenline at Industrial Park Road and County Road 21 border a residential and commercially zoned area on the outskirts of town. There are no sidewalks and very low numbers of cyclists and pedestrians were observed here, despite having a number of destinations in the vicinity (grocery store, several workplaces) as well as being a route to the college and Glebe Park. There is a walking trail that leads to some businesses in that area but for the most part people use their vehicles to access the stores in this area of town. The speed limit

¹ Average number of active travelers based on 3 hours of observation.

in this area is posted at 50km/hr but the majority of the vehicles seemed to be travelling faster (approximately 60km/hr), which also deters AT.

Similarly, in Minden, AT levels were much lower at locations further from downtown. Minimal pedestrian activity was observed along Highway 35, which runs north-south and creates a by-pass around downtown Minden. This corridor has seen much commercial development over the past few years. In addition to long-standing destinations such as Rotary Park, two grocery stores and Kawartha Dairy Ice Cream, there is now a Tim Horton's, Subway, convenience store/gas station, Canadian Tire and Dairy Queen. Many of these serve highway travellers going north or south, but they are also important destinations for local residents. Highway 35 is a difficult and not very pleasant environment for pedestrians to negotiate, with four lanes of traffic, high traffic volume, a posted speed limit of 70 km/hr, no sidewalk (although there is some paved shoulder) and three traffic lights each about a kilometer or more apart. Even though places like Rotary Park and Kawartha Dairy are within easy walking and cycling distance from the residential areas in Minden, few people choose to use AT, and a likely contributing factor is having to negotiate the highway by either walking along or across it or both. Many survey comments reflect this notion.

It is beyond the scope of work of the CIA to invest directly in infrastructure, however, there have been a number of CIA initiatives that have directly or indirectly impacted on municipal decisions leading to investments in AT. This is the second 'prong' of the CIA's approach: to influence municipal councils and staff. The efforts of the CIA complemented other factors such as availability of funding and emerging municipal priorities, and added to existing municipal capacity.

Municipalities are largely responsible for decisions and actions related to changes in the built environment. Therefore, in order to support active transportation, municipalities must have in place effective land use and transportation policies that will guide planning decisions and infrastructure investments. The Ontario Professional Planners Institute speaks of the importance of an integrated planning approach to discerning problems and developing solutions for creating a healthy built environment. They state that "...goals can be better attained through the pooling of resources...and through the development of cooperating networks that can cross sectoral, geographic and political boundaries."³⁴

An important goal of the CIA was to influence decision makers, through raising awareness, making a strong business case and providing sound evidence, with the desired outcome being municipal policies and investments that support AT. Therefore, an important impact of the CIA has been establishing itself as a credible resource for municipalities. Building positive relationships with municipalities has been a thread that has woven its way through all the work the CIA has done to encourage active transportation. The success of this approach was evidenced through the responses of many key informants.

The research also showed that there was overall agreement (84%) among key informants that the CIA contributed in a significant way to observed changes, and that they are viewed as playing an important role in the future. Reimer's research on social capital in the context of rural community development

reinforces the importance of positive relationships as a critical aspect of achieving positive outcomes that build community capacity.³⁵

In 2005, active transportation was not part of municipal conversations, and this was something that was acknowledged by some of the key informants. The CIA has done several things over the years to build a strong, evidence-based case for active transportation to help to position the topic as something in the 'public interest', and worth including in municipal planning discussions.

The CIA did awareness raising activities specifically targeting municipal councils and staff. In a project called "Engaging Decision Makers in Creating Healthy, Active Communities", members of the CIA made presentations to councils about the benefits of investing in healthy active communities and what the role of the municipality could be. They used the Active Communities Charter, created by the HKPR District Health Unit, as a policy guideline tool, and requested municipalities to pass a resolution to adopt it, resulting in three municipalities adopting the charter. The CIA also created two annual newsletters highlighting the ways that community groups contribute to creating a healthy active community. These were distributed to all municipalities, as well as directly to households throughout the county. All of these activities were steps to building municipal awareness and support for healthy communities in general, and active transportation specifically. Several key informants spoke specifically about the impact of these activities, indicating that the CIA had some measure of influence on the evolution of municipal priorities.

According to a report from Transport Canada, Active Transportation Plans are identified as a key to success, and provide, "...an opportunity to examine and learn from the experience of others, to identify solutions that fit the local context, and to guide their implementation." The report goes on to say that AT plans, "...can be a great catalyst for action by energizing the public, motivating staff and elected officials and leveraging limited financial resources through volunteer effort."³⁶ The CIA chose to develop AT plans for Haliburton and Minden, which included visualizations for each of the key problem areas identified by the community, as resources for municipal planning, and also to use as advocacy tools. Community-based research in Haliburton and Minden provided individual input that informed the development of the AT Plans, demonstrating community-level interest in active transportation. The AT plans were provided to the respective municipalities, and supported and enhanced municipal plans to upgrade their downtown streets. For example, Minden Hills has referenced the AT Plan in the development of their Downtown Revitalization Strategy, and has used some of the recommendations for improving problem spots in the downtown. Dysart et al hired the same landscape architect who provided illustrations for the Haliburton AT Plan to create a detailed plan for the downtown streetscape, which was then implemented by council. Both of these actions indicate the value of the AT Plans to the respective municipalities. Further evidence of the value of these documents was found in comments made by key informants.

The AT Plans came about directly as a result of the CIA doing the research and pursuing funding to hire consultants to work with them on the plans, which were then provided to the municipalities. As small

municipalities with limited resources, the CIA added capacity and created new tools, assisting the municipalities as well as moving the planning for AT further ahead.

The AT Plans developed by the CIA have also been tools to influence official plan (OP) policies. Supportive land use policy is an important step towards creating a community that facilitates safe walking and cycling. Land use planning decisions impact such things as development patterns, transportation systems and design characteristics, all of which play a role in determining physical activity.³⁷ The focus of the CIA on influencing land use policies reflects the evidence that policy change is one of the most effective ways to influence and change levels of physical activity.³⁸ Because municipal official plans guide decision making about how land is used, it is important that they include policies that support and encourage active transportation.

The Official Plan for Dysart et al was amended in 2010, and includes policy that refers to the Active Transportation Plan for Haliburton Village. The Minden Hills OP is nearing completion of its review, and the Minden AT Plan is referenced in the draft amendment. Having these documents embedded in official plan policy helps to ensure that the municipalities continue to use them in the planning process.

In addition to the AT Plans, the CIA took an active role in contributing to OP reviews at the county and local levels, including submitting specific policy recommendations. Previous OP's did not contain policies related to AT or healthy, active communities.

As of 2012, four OPs had been amended (one county, three local). All local OPs now include specific references to active transportation, walking, cycling and healthy active communities. Some policy changes in the amended OPs reflect new direction from the province in the updated Ontario Provincial Policy Statement, in particular policy 1.5.1 regarding Healthy, Active Communities. Active transportation was identified as a way to achieve healthy, active communities. This provincial policy direction provided a starting point for recommendations put forth by the CIA. Local efforts to advocate for changes are strengthened when there is direction from the province, and an indication that local priorities are also provincial priorities. Part of the CIA's strategy in engaging with municipalities was to show how their efforts were assisting them in being "consistent with" provincial policy direction, which added value to their actions.

In two cases, it is reasonable to conclude that it is due in large part to the CIA's participation that policies for AT and healthy communities were added, because the amended OPs include the CIA's recommendations verbatim (Township of Algonquin Highlands, Municipality of Highlands East). It is possible that in the absence of the CIA's recommendations, other policies would have been added, however, they would likely not have been as specific. In the other two instances, the "spirit" of the CIA's recommendations were added, indicating that the CIA likely influenced the policy and supported municipal intentions that may have already existed. Through participating and contributing to these OP reviews, the CIA continued to act as a credible resource in this policy area, while also ensuring that AT-supporting policies were added.

Municipal priorities evolve according to changing needs in their communities. The CIA was attentive to these priorities, and presented a message about how AT could help achieve municipal objectives. Key informants reported on the link between AT and priorities such as tourism and meeting the needs of an aging population. At times, CIA efforts dovetailed with specific municipal goals. For example, 2009 was Minden's sesquicentennial (150th anniversary). In the couple of years preceding, council identified as a priority the completion of the Riverwalk Trail in time for 150th celebrations, providing a concrete example of the township's willingness to invest in AT infrastructure. The CIA's promotional efforts complemented this project. In Haliburton, a key informant stated that upgrades to York St. had been on council's 'radar' for over 20 years. The CIA had identified York St as a 'hotspot' through their research, and contracted a landscape architect to do illustrations that showed potential improvements. When the opportunity for funding partnerships with provincial and federal governments emerged, the Municipality of Dysart et al contracted the same architect to do plans for streetscape upgrades. These examples demonstrate the importance of timing, and of building credibility over time as a partner, so that when opportunities arise, the input of the CIA was positively received.



Minden Riverwalk, including the Logger's Crossing pedestrian bridge

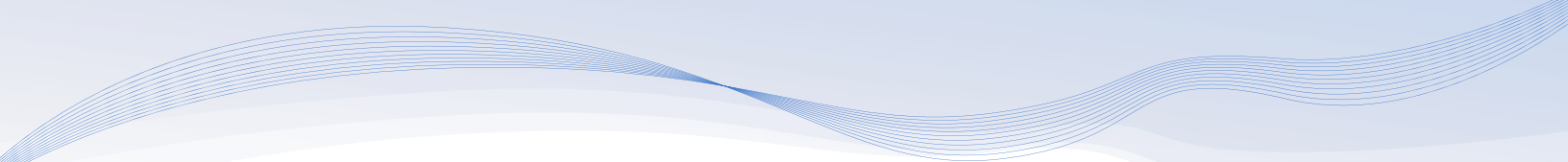
SECTION 8: CONCLUSIONS AND IMPLICATIONS

From the discussion of the research findings, the following conclusions can be drawn:

1. The CIA contributed in a significant way to the observed changes in policy, planning and infrastructure to support AT. The CIA was successful in using influence through individual and community capacity to affect change. This is particularly true for changes to policy and planning and to a lesser degree, infrastructure.
2. The CIA added to the capacity of municipalities around AT planning, particularly in the early stages through engagement activities and later through the OP review process, and promotion.
3. The promotional efforts of the CIA were successful in raising awareness of AT, which in turn contributed to more people using active transportation more often.
4. Investments by municipalities in infrastructure to support AT such as sidewalks, trails, and paved shoulders are an effective means of getting more people walking and cycling. Lack of infrastructure to support safe and convenient active transportation is a barrier to choosing this over travel by automobile.
5. AT Plans for each village were effective resources for municipal planning. Having these documents embedded in official plan policy will help to ensure that the municipalities continue to use them in the planning process.
6. The CIA's involvement in the 5 year review process of county and local official plans was a successful strategy in affecting policy change.
7. All of the interventions that took place between 2005 and 2012 have contributed to an increase in the number of people walking, and to a lesser degree cycling, in the villages of Minden and Haliburton. Future research could focus specifically on levels of cycling activity.

There are implications for practice that arise from these conclusions. Leadership on active transportation can come from community groups and enhances municipal capacity. Community groups come together out of an interest in a specific area, and this focus brings with it a level of skill, expertise and passion. Research shows that community groups that are able to participate effectively in bureaucratic systems are more successful in their partnerships with municipalities.³⁹ Community-municipal partnerships increase community capacity to affect changes that support active transportation. Working with these groups presents a golden opportunity for municipalities to capitalize on existing energy and resources, and build relationships to undertake new and innovative ways to create a healthy community. It is a win-win situation, especially in small, rural communities, as neither the municipality nor community groups can do this work alone.

Increases in levels of active transportation are achieved through a number of interventions implemented simultaneously over time including improvements to infrastructure to support AT, and promotion and education campaigns. Behaviour change is complex and therefore requires a multi-pronged approach to be successful. Because the benefits of walk and bike-friendly environments cross so many sectors, planning for AT needs to be an integral part of community planning and decision



making, and involve the participation of a variety of stakeholders such as public health, business, education, environment and government.

Implementation of AT initiatives is achievable in small, rural communities. There are unique opportunities for partnerships, and the scale of rural towns means that services and destinations are often in close proximity. While the overall geography can be vast, typically there is a concentration of services around key hubs, which can be the focus for AT promotion and planning.

Measurement, monitoring and evaluation of efforts and interventions to improve the conditions for AT are required in order to better understand the social and financial returns on investment. Evidence is needed in order to make the case for investment – what doesn't get measured doesn't count. The ultimate goal is to increase levels of AT and this cannot be measured if there is no data to analyze. In cases where many strategies have been employed, it may be difficult to draw direct cause and effect relationships between specific interventions and outcomes. However, communities can work to measure what changes occur and what/who contributed to the changes.

Community-based research is a valuable and effective approach to evaluation. Evaluation is often seen as an expensive endeavour conducted only by third party researchers or consultants. However, a community-based approach is a legitimate and accessible methodology that community groups can use to measure and evaluate the effectiveness of their work. Using multiple methods of data collection, both quantitative and qualitative, is useful in order to triangulate results and validate what has been observed.

Significant outcomes from an AT initiative may not emerge within the one or two year grant period for a project. In order to contribute to a body of evidence that supports the contribution that AT makes in creating healthy, active communities, funders need to take an interest in looking back and not just looking forward to the next project.

Finally, this quote from a key informant identifies an important lesson from this research.

“Persistence and consistency – slow consistent pressure applied over a long period of time.”

For a community-based group, influencing change takes time. Having and articulating a consistent vision over time to the community and to municipal officials is important. Threaded throughout is the importance of building and maintaining positive relationships with key stakeholders. There are many factors at work when it comes to changing active transportation behaviour. The activities of the Communities in Action Committee were identified as contributing in a number of steps along the way, indicating that taking a variety of approaches and targeting a range of audiences can be an effective way to get the message to penetrate and ultimately affect change.

REFERENCES

-
- ¹ Public Health Agency of Canada <http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/at-ta-eng.php>
- ² Transportation Association of Canada. (2012) Primer on Active Transportation: Making it Work in Canadian Communities
- ³ Transport Canada. (2010) Sustainable Transportation in Small and Rural Communities.
- ⁴ Rails-to-Trails Conservancy. (2012) Active Transportation Beyond Urban Centers: Walking and Bicycling in Small Towns and Rural America
- ⁵ Ibid
- ⁶ Perrotta, Kim. (2011) Public Health and Land Use Planning: How Ten Public Health Units are Working to Create Healthy and Sustainable Communities. Prepared for the Clean Air Partnership (CAP) and the Ontario Public Health Association (OPHA).
- ⁷ Humpel N, Owen N, Leslie E.(2002) Environmental factors associated with adults' participation in physical activity: a review. American Journal of Preventative Medicine. 22:188-99
- ⁸ Saelens BE, Sallis JF, Frank LD. (2003) Environmental correlates of walking and cycling: findings from the transportation, urban design, and planning literatures. Annals of Behavioral Medicine, 25(2), 80-91.
- ⁹ Guide to Community Preventive Services. Promoting physical activity: environmental and policy approaches. www.thecommunityguide.org/pa/environmental-policy/index.html.
- ¹⁰ Cited in Ontario Chronic Disease Prevention Alliance (2010) Toolkit to Healthier Communities – Influencing Healthy Public Policies.
- ¹¹ Raine, K.D., Muhajarine, N., Spence, J.C., Neary, N.E., Nykiforuk, C.I.J. “Coming to consensus on Policy to Create Supportive Built Environments and Community Design”. Canadian Journal of Public Health; Vol 103, No 9 (2012):Suppl.3:S5-S8.
- ¹² Haliburton County Development Corporation website <http://haliburtoncdc.ca/about-us-and-the-community.html>
- ¹³ Hirstwood, S. (2011) Haliburton County Business Retention and Expansion Report. Prepared for the Haliburton Highlands Chamber of Commerce.
- ¹⁴ Statistics Canada 2011 Census

-
- ¹⁵ Heart and Stroke Foundation. (2005) Report Card on Canadians' Health: Has the Suburban Dream Gone Sour?
- ¹⁶ Transport Canada (2010) Sustainable Transportation in Small and Rural Communities.
- ¹⁷ Central East Local Health Integration Network Environmental Scan, November 2006
- ¹⁸ Statistics Canada (2006) Census Community Profile for the County of Haliburton.
- ¹⁹ Thornton, S. (2005) Haliburton Village – The State of Active Transportation. Commissioned by the Communities in Action Committee.
- ²⁰ McLachlan, A. and Robus, J. (2007) *The Built Environment and AT in Minden, Ontario*. Trent University.
- ²¹ Green Communities Canada. (2007) Walkability Roadshow Case Studies, Walk21 2007.
- ²² First Impressions Community Exchange. A project of the Ontario Ministry of Agriculture Food and Rural Affairs' Rural Economic Development Program.
- ²³ Young, P. (2008) An Active Transportation Plan for Minden. Produced for the Communities in Action Committee.
- ²⁴ Hall, K. (2009) An Active Transportation Plan for the Village of Haliburton. Produced for the Communities in Action Committee.
- ²⁵ Alta Planning and Design (2010) National Bicycle and Pedestrian Documentation Project Instructions.
- ²⁶ Quinn Patten, M. (2002) *Qualitative Research and Evaluation Methods*. Qualitative Analysis and Interpretation, second edition, Sage Publications.
- ²⁷ Ibid
- ²⁸ Ibid
- ²⁹ Creswell, J.W. (2003) Research Design: Qualitative, quantitative and mixed methods approaches, second edition. Sage Publications.
- ³⁰ Charmaz, K. (2000) *Grounded Theory: Objectivist and Constructivist Methods*. Handbook of Qualitative Research, second edition, Sage Publications.
- ³¹ Ogilvie, D. et al. (2004) "Promoting walking and cycling as an alternative to using cars: systematic review". BMJ 2004; 329:763

³² Krizek, K.J., Forsyth, A., Baum, L. (2009) Walking and Cycling International Literature Review Final Report. Victoria Department of Transport, Australia.

³³ Inturri, G., et al. "Promotion of Walking and Cycling Through the ASTUTE Project". Walk21 conference proceedings.

³⁴ Ontario Professional Planners Institute and Ministry of Municipal Affairs and Housing. (2009) Planning By Design: A Healthy Communities Handbook.

³⁵ Reimer, B. (2006) "The Rural Context of Community Development in Canada," *Journal of Rural and Community Development*, pp. 155-175.

³⁶ Transport Canada (2010) Sustainable Transportation in Small and Rural Communities.

³⁷ Williams, M. and Wright, M. (2007) The Impact of the Built Environment on the Health of the Population: A Review of the Review Literature. Simcoe Muskoka District Health Unit.

³⁸ Cited in Ontario Chronic Disease Prevention Alliance (2010) Toolkit to Healthier Communities – Influencing healthy Public Policies.

³⁹ Hall, K. (2010) The Roles, Practices and Capacities of Rural Municipalities and Communities to Engage in Community Development Planning. Master's Thesis, University of Guelph, ON.



Cycling in Haliburton Village

APPENDIX A: FULL LIST OF ACTIVITIES AND PROJECTS, COMMUNITIES IN ACTION

YEAR	POLICY & PLANNING	COMMUNITY DESIGN & INFRASTRUCTURE	PARTNERSHIP & COLLABORATION	EDUCATION & AWARENESS	OTHER
2005	Community based research in Haliburton – focus groups, surveys, observational studies Hired landscape architect to do concept illustrations on 3 negative hot spots	Advocated to Dysart to purchase and install a bike rack on municipal property.	Communities in Action Fund 2005-06 (\$25,000) Health for Life receives HCDC LIP funds for first cycling festival (\$1500) to be held in 2006 Dysart installed sign kiosks in-kind Initial partners: Haliburton County Development Corp. HH Health Services HKPR District Health Unit HH Trails and Tours Network U-Links Rail's End Gallery Establishment of Haliburton Highlands Cycling Coalition	Summer Walk series in Haliburton Public Forum on AT Park the Car and Get Moving campaign (newspaper ads, articles, radio PSA's,) Promotion of Int'l Walk to School Day	Pres to HCDC board on healthy active communities
2006	Letters to councils re: use of Gas Tax Rebate for AT infrastructure Concept illustrations for Haliburton AT hotspots completed Community based research in Minden – focus groups, observational studies	4 signs installed in parking lots in Haliburton Received HCDC Community Capacity Funds for Riverwalk Trail improvements, Head Lake Trail planning	Communities in Action Fund 2006-08 (\$31,060) HCDC CCF Funds (\$56,900) HHCC receives HCDC LIP funds for website design, map development and cycling festival (\$2500) Minden Hills installed sign kiosks in-kind New partners: Minden Hills Community Services Minden Riverwalk Committee HH Cycling Coalition	Developed and distributed Haliburton Walk Bike and Be Active maps; signs developed AT featured in issue of Cottage Times Cycling featured in issue of Cottage Times First Shifting Gears Cycling Festival Promotion of Int'l Walk to School Day Winter AT promotion – radio PSA's Development of HHCC website	Pres at: ON Heart Health Network workshop Sue and Kate attend Pro Walk Pro Bike conference in Madison, Wisconsin
2007	Development of the Active Communities Charter Minden community research: AT survey done by U-Links students, community forum, observational studies, focus groups and data analysis, final	4 signs installed in Minden Advocacy campaign to county to pave shoulders on county road projects,	Heart and Stroke Advocacy grant project (\$5000) New partners: ASES Minden Hills (Rick joins committee) HCDC grant, Safe Kids Canada grant (\$13,000 total) Cycling Coalition gets HCDC CCF	OHCC Built Environment and Health project: offered two workshops (Minden and Haliburton) Second Shifting Gears	Pres at: Fireside Chat on rural AT, Minden Community forum, Safe Kids Canada conf, Temiskaming Healthy Communities forum, ASRTS

YEAR	POLICY & PLANNING	COMMUNITY DESIGN & INFRASTRUCTURE	PARTNERSHIP & COLLABORATION	EDUCATION & AWARENESS	OTHER
	<p>report</p> <p>Active and Safe Routes to School survey and walkability workshops with Archie Stouffer elementary students</p> <p>Planning charrette with ASES students; students made presentation to council</p> <p>Consultant hired to complete Minden Active Transportation Plan</p> <p>Walk21 roadshow – hosted community walkabouts in Haliburton and Minden, a community forum and decision makers’ workshop to begin to identify community assets and opportunities re: walkability</p> <p>Hosted TDM workshop in Haliburton – brought in Lorenzo Mele</p> <p>Completion of geotechnical study and design plans for floating boardwalk for Head Lake Trail</p> <p>Developed plan with illustrations for safe walking route to Haliburton schools; geotechnical study of wetland completed</p> <p>Riverwalk Geotechnical study</p> <p>Feedback to MH council re: walkability of Canadian Tire site</p>	<p>specifically CR 21 – letter writing campaign; sent info brief to county council</p> <p>Riverwalk receives \$25,000 from HCDC, \$25,000 from township for construction of next section of path</p> <p>Riverwalk Committee – Trillium grant \$40,000 for bridge</p>	<p>(\$23,200) and CIAF funds (\$12,060) for Cycling Master Plan</p> <p>Patient News donates printing of Haliburton Cycling Map</p> <p>Green Communities and Walk 21 – participated as one of 8 case studies as part of the Walkability roadshow.</p> <p>HCDC and CIAF funding for Cycling Master Plan</p> <p>Presentation to TLDSB Board about school walking route</p> <p>Meetings with Family Medical Centre, SBES and JDHES school councils, HHSS re: walking route to schools</p>	<p>Cycling Festival, week of cycling activities added</p> <p>First Bike to School Day</p> <p>Promotion of Int’l Walk to School Day</p> <p>Creation of Haliburton Cycling map</p> <p>Invited municipalities to organize World Record Walks</p>	<p>Fireside Chat, Walk21 conference</p>
2008	<p>Completed Minden AT Plan and presented to Minden Hills council</p> <p>Research and community survey, open houses for Cycling master plan</p> <p>Completion of Haliburton County Cycling</p>	<p>Commissioned art bike racks in Haliburton and Minden</p> <p>Walk, Bike and Be</p> <p>Active sign designed and purchased for Foodland signboard in</p>	<p>Partnered with County to develop an application for TDM grant program for Share the Road project</p> <p>Foodland partner re: new sign</p> <p>Safe Kids Canada Funding for Cardiff Walkability project; (\$250) partnered with Cardiff ES</p>	<p>Developed and distributed Minden Walk bike and Be Active maps; signs developed</p> <p>First annual Commuter Challenge held</p>	<p>Presented at Pro Walk Pro Bike conference, Seattle, WA (Rural AT)</p> <p>Win Best Short Case Study for Rural AT (Assoc. of Ped and</p>

YEAR	POLICY & PLANNING	COMMUNITY DESIGN & INFRASTRUCTURE	PARTNERSHIP & COLLABORATION	EDUCATION & AWARENESS	OTHER
	<p>Master Plan and presentation to councils Walkability workshop with Cardiff ES students; presentation to council</p> <p>Results from student project in Cardiff presented to councillor (by students) and council (by teacher in summer) Boardwalk design for walking trail to school completed, report written</p>	<p>Haliburton Advocacy to Minden Hills re site plan for Canadian Tire Riverwalk receives \$40,000 from HCDC</p>	<p>Wrote and submitted case study to APBP on Rural AT Met with TLDSB reprs. re: walking route to schools Convened first meeting of Healthy Active Communities Roundtable to discuss common messaging, particularly when communicating with municipal councils Age Friendly committee forms HCDC funding \$2750 for Engaging Decision Makers project</p>	<p>Third Shifting Gears Cycling Festival and workshops Promotion of Int'l Walk to School Day</p>	<p>Bicycle Professionals) Pres at ASRTS forum and webinar</p>
2009	<p>School Walking Trail Report sent to all Haliburton schools, TLDSB and Medical Centre Head Lake Trail Committee takes over responsibility for trail development Submitted comments and attended open houses for County Official Plan review process Presentations made to municipal councils "Engaging Decision Makers in Creating Healthy Active Communities", presented the Active Communities Charter and asked them to adopt/endorse it Completed Active Transportation Plan for Haliburton and presented to Dysart council Submitted comments and attended open houses for Dysart Official Plan review process Attended open house and submitted comments for Highlands East Official Plan Review process</p>	<p>Continue advocacy for paved shoulders Advocacy for Rail Trail from Haliburton to Gould's Crossing be designated non-motorized – letter with signatures from numerous community groups</p>	<p>Share the Road info shared with Muskoka, Chatham-Kent, Guelph, Wasaga Beach Aging Well Committee receives New Horizons grant \$25,000 Stakeholder meeting re: School walking Trail Presentation made to Haliburton rotary about School walking Trail Funding from Healthy Communities Fund 2009 –2011 (\$21,652) primarily for Healthy Active Communities reports Partner on Share the Road project, along with County, municipalities, HKPR, Cycling Coalition, OPP, U-Links</p>	<p>Development and implementation of comprehensive Share the Road campaign Eleanor McMahon speaks about creating bicycle friendly communities as part of U-Links Food for Thought lecture series Second Annual Commuter Challenge held, supplemented with funds from TDM grant Fourth Shifting Gears Cycling Festival Bike activities during May and June Promotion of Int'l Walk to School Day Kate does workshop on the Official Plan Review process for HAC roundtable members and others Upgrade of CIA website</p>	<p>Presented at FCM webinar on rural AT ON Bike Summit (rural cycling and health) Near North AT Forum Published in: Our Communities, Our Health Our future (OHCC)</p>

YEAR	POLICY & PLANNING	COMMUNITY DESIGN & INFRASTRUCTURE	PARTNERSHIP & COLLABORATION	EDUCATION & AWARENESS	OTHER
2010	<p>Presented AT accomplishments in 2009 to county council</p> <p>Healthy Active Communities Report #1 sent to decision makers</p> <p>Submitted comments and attended public meeting for Algonquin Highlands Official Plan review process</p> <p>Comments submitted to Min. of Municipal Affairs and Housing for PPS Review</p> <p>Municipal candidate online survey done re: creating healthy active communities</p> <p>Healthy Communities community consultation gets underway, led by HKPR</p> <p>Walkability Awards of Excellence presented to Minden Hills and Dysart</p> <p>County CAO attends FCM conference in Toronto to accept Sustainable Communities Award, and presents to county council</p>	<p>Continue advocacy for paved shoulders – letter to county roads committee</p>	<p>Survey done of community stakeholders for HAC report</p> <p>Awarded FCM Sustainable Communities Award</p> <p>Haliburton BIA contributes \$400 for reprint of map</p> <p>Awarded Green Communities Canada Walkability Award of Excellence</p> <p>Share the Road info shared with Town of Blue Mountains, Moose Jaw Sask, Region of Niagara, Haldimand-Norfolk</p> <p>HCDC funds \$2500 for share the Road promotion, \$200 from County</p> <p>New partners: HH Local Food Coalition</p> <p>County Tourism – Highland Wheeler</p> <p>HCDC funding for Highland Wheeler project: \$2400</p> <p>CIA joins CLASP project of OHCC as a case study on community partnerships to reduce chronic disease</p>	<p>Third annual Commuter Challenge held</p> <p>Haliburton map is updated, reprinted and distributed</p> <p>Fifth Shifting Gears Cycling Festival</p> <p>Bike activities during June Bike Month</p> <p>Bike to School expanded to a week</p> <p>Share the Road promotion (radio, newspaper) – HCDC and County funded</p> <p>Highland Wheeler promotional video series completed and promoted through newspapers, YouTube, Facebook, Twitter</p> <p>Promotion of Int'l Walk to School Day</p> <p>Two community forums held on active communities, facilitated by Gil Penalosa of 8-80 Cities.</p> <p>Several municipal candidates attended</p> <p>Two forums held on local food systems, led by OHCC facilitator</p> <p>Healthy Active Communities Report #1 sent out community at large</p>	<p>County wins FCM Sustainable Communities Award: Transportation for Share the Road Project</p> <p>Haliburton and Minden win Green Communities Walkability Award of Excellence</p> <p>Presentations at: ACT Canada conference, FCM Sustainable Comm conference, Healthy Communities conference, AT workshops in Lindsay & Port Hope, ON</p> <p>Bike Summit</p>

YEAR	POLICY & PLANNING	COMMUNITY DESIGN & INFRASTRUCTURE	PARTNERSHIP & COLLABORATION	EDUCATION & AWARENESS	OTHER
2011	<p>Presented AT accomplishments in 2010 to county council</p> <p>Ajax Mayor Steve Parish speaks to county Roads committee about the value in planning for and investing in cycling</p> <p>8-80 Cities report on Healthy Active Communities sent to decision makers</p> <p>Healthy Active Communities Report #2 sent out to decision makers</p>	<p>Continue advocacy for paved shoulders – email campaign</p>	<p>Healthy Communities Fund grant 2011-2013 (\$27,700) for evaluation and AT planning in Dorset</p> <p>New partners: Algonquin Community Dev't Cooperative (ACDC)</p> <p>Share the Road info shared with City of Kawartha Lakes and Haldimand County</p> <p>Road Safety Challenge Funds (\$500) for Share the Road promotion</p> <p>OHCC \$2000</p>	<p>Fourth annual Commuter Challenge held</p> <p>Share the road promotion (radio, newspaper)</p> <p>Sixth Shifting Gears Cycling Festival</p> <p>Bike Week activities in June</p> <p>5 part series in Hal Echo about cycling</p> <p>Healthy Active Communities Report #2 sent out to community at large</p>	<p>Presentations at: OGRA ROMA conference (Share the Road), Nova Scotia AT Summit (AT Initiatives)</p> <p>Article about Share the Road in The Ontario Ecotourism Society newsletter</p>
2012	<p>Submitted comments and participated in Minden Hills Official Plan review</p> <p>Observations studies in Haliburton, Minden, Dorset</p>		<p>Road Safety Challenge Funds (\$500) for Share the Road promotion</p> <p>HCDC funds (\$1500) for evaluation project</p> <p>Road Safety Community Partnership Fund (\$4650) for Share the road promotion</p>	<p>7th Shifting Gears Cycling Festival and Bike month</p> <p>Distribution of Healthy Active Calendar</p>	<p>Presentations at: Heart and Stroke/FCM webinar, ACT Canada Sustainable Mobility Summit, Ontario Bike Summit, Complete Streets Forum, HCLink webinar on Rural Community Engagement</p> <p>Received Sheila Lupson Healthy Communities Recognition Award from OHCC</p> <p>Designated Landmark Case Study in Sustainable Transportation by Tools of Change</p> <p>Publication of CLASP case study on website</p>

APPENDIX B: SURVEY

Note: This survey was part of a larger transportation survey, which was unrelated to this study. Sections 1 and 2 were general transportation questions.

SECTION 3 – Active Transportation

Active transportation is any self-propelled activity such as walking, cycling or using a wheel chair, that is used to get to places for a purpose and not just for recreation. In the questions below where we ask about using active transportation, we want to know if you walked, cycled, etc., either to get to and/or get around in the village.

13. When you are in either Haliburton or Minden Village, how much do you use active transportation (including parking your car in one spot and walking, biking, etc. to get around while there)?

- ☐ Mostly use active transportation
- ☐ Sometimes use active transportation / sometimes drive
- ☐ Mostly drive

14. What village are you in most often? (Please choose only one)

- ☐ Haliburton Village
- ☐ Minden Village

****For the rest of this survey, please answer the following questions related to the village you have chosen above****

15. In the past 6 months, have you used active transportation to get from place to place:

- ☐ Yes
- ☐ No

****If you answered “NO” please skip to question 21****

16. In the past 6 months, about how often did you use active transportation?

- ☐ Daily basis
- ☐ Weekly basis (Please specify number of times per week) _____
- ☐ Month basis (Please specify number of times per month) _____

17. What types of active transportation do you use? (Check all that apply)

- ☐ Walking
- ☐ In-line Skating
- ☐ Cycling
- ☐ Wheelchair
- ☐ Skateboarding
- ☐ None
- ☐ Other _____

18. What is the average distance you travelled when you used active transportation? (Including short trips around the village)

- ☐ Less than 1 km
- ☐ 1 km to less than 3 km
- ☐ 3 km to less than 5 km
- ☐ 5 to 10 km
- ☐ More than 10 km

19. In the past 6 months, did you use active transportation to get to any of the following locations at least once? (Check all that apply)

- ☐ School
- ☐ Restaurant
- ☐ Work
- ☐ Personal appointment, e.g. doctors, hair salon
- ☐ Shopping
- ☐ Library
- ☐ Park
- ☐ Place of worship
- ☐ Bank
- ☐ Friend or family's home
- ☐ Community centre/Arena
- ☐ Other _____

20. What are some of the reasons that you use active transportation instead of driving? (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Physical activity | <input type="checkbox"/> Good for the environment |
| <input type="checkbox"/> Can do it with others | <input type="checkbox"/> Mental well being |
| <input type="checkbox"/> Save money | <input type="checkbox"/> Don't have a car |
| <input type="checkbox"/> Other _____ | |

21. What may keep you from using active transportation more that you do right now? Please rate the significance of each of the following barriers on a scale from 1 to 5, where 1 is not very significant, and 5 is very significant.

Weather	1	2	3	4	5
Time	1	2	3	4	5
Lack of sidewalks, trails, or paved shoulders	1	2	3	4	5
Unsafe conditions, e.g. traffic volume, traffic speed, poor lighting	1	2	3	4	5
Distance	1	2	3	4	5
Fear of crime	1	2	3	4	5
Other _____					

22. What would make it more likely that you would use active transportation more often than you do right now?

- | | |
|--|--|
| <input type="checkbox"/> More information | <input type="checkbox"/> Someone to do it with |
| <input type="checkbox"/> The right equipment | <input type="checkbox"/> Skills training |
| <input type="checkbox"/> Better sidewalks/trails | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> More paved shoulders | <input type="checkbox"/> Nothing |
| <input type="checkbox"/> Other _____ | |

23. The more connected places are by sidewalks, trails and paved shoulders, the easier it is to get around actively. Thinking about the village you are in most often:

a) How easy is it to get from place to place in using active transportation?
(Circle one, where 1 is very difficult and 5 is very easy)

1 2 3 4 5

b) How safe do you feel using active transportation?
(Circle one, where 1 is very unsafe and 5 is very safe)

1 2 3 4 5

24. What things impact your feelings of safety? (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Traffic speed | <input type="checkbox"/> Undefined space for pedestrians and cyclists |
| <input type="checkbox"/> Traffic volume | <input type="checkbox"/> Lack of signage |
| <input type="checkbox"/> Fear of crime | <input type="checkbox"/> Inadequate lighting |
| <input type="checkbox"/> Lack of safe crossings | <input type="checkbox"/> Other _____ |

25. Please identify specific places in the village that you find unsafe for active transportation.

26. Thinking about the village you are in most often:

a) Have you used the Walk, Bike & Be Active map? ☐ Yes ☐ No

b) If yes, how useful have you found the map? (Check one)

☐ Not at all useful ☐ Somewhat useful ☐ Very useful ☐ n/a

c) Have you used the Walk, Bike & Be Active signs? ☐ Yes ☐ No

d) If yes, how useful have you found the signs? (Check one)

☐ Not at all useful ☐ Somewhat useful ☐ Very useful ☐ n/a

27. What are the things that make the village a good place for active transportation?

28. What would improve things for active transportation in the village?

29. Do you drive into the village so you can use the trails or sidewalks to walk or bike for exercise?

☐ Yes ☐ No ☐ n/a

If yes, what trails or routes do you use? _____

30. Have you participated in any of the following walking or cycling activity/events in Haliburton County?
(Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Commuter Challenge | <input type="checkbox"/> Cycling workshop |
| <input type="checkbox"/> Sneaker Day | <input type="checkbox"/> Cycling Festival |
| <input type="checkbox"/> Walk to School Day | <input type="checkbox"/> Other _____ |

31. a) Are you aware of the Share the Road campaign?

☐ Yes ☐ No

b) If yes, how effective do you think it has been in making roads safer for cycling? (Check one)

☐ Not effective ☐ Somewhat effective ☐ Very effective ☐ Don't know

32. Do you have any other comments?

SECTION 4 – Demographic Information

33. What Township do you live in?

- ☐ Dysart et al ☐ Minden Hills ☐ Other _____
☐ Algonquin Highlands ☐ Highlands East

34. Please chose the age range that you fit into.

- ☐ 15 – 24 ☐ 25 – 34 ☐ 35 – 44
☐ 45 – 54 ☐ 55 – 64 ☐ 65 – 79 ☐ 80+

35. Are you male or female?

- ☐ Male ☐ Female

36. Which of the following best describes your household?

- ☐ One person ☐ Two person
☐ Two parent with children ☐ Lone parent with children
☐ Non-family (sharing with friends) ☐ Other (please explain) _____

37. a) Which of the following best describes you? (Please check all that apply)

- ☐ Employed Part-Time ☐ Unemployed
☐ Employed Full-Time ☐ Self-employed
☐ High School Student ☐ College/University Student
☐ Retired ☐ Other (please explain) _____

b) Do you work from home?

- ☐ Yes
☐ No

38. What is your total family income over the past 12 months (before taxes and deductions)?

- ☐ Less than \$20,000 ☐ \$20,000 - \$39,000 ☐ \$60,000 – \$79,000
☐ \$40,000 - \$59,000 ☐ \$80,000 – or more ☐ Don't know

39. How many cars are there in your household?

- ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ More than 4

40. How many drivers are there in your household?

- ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ More than 4

THANK YOU FOR YOUR INPUT!

**Please return your completed survey to the location where you got it OR mail it to
Environment Haliburton! Box 824, Minden ON K0M 2K0**

APPENDIX C: SUMMARY SURVEY REPORT

13. When you are in either Haliburton or Minden Village, how much do you use active transportation (this includes parking your car in one spot and walking, biking, etc. to get around while there)?

Response	Chart	Percentage	Count
Mostly use active transportation		45%	123
Sometimes use active transportation/ sometimes drive		39%	108
Mostly drive		18%	49
Total Responses			275

14. What village are you in most often? (Please choose only one)

Response	Chart	Percentage	Count
Haliburton Village		69%	192
Minden Village		31%	87
Total Responses			279

15. In the past 6 months, have you used active transportation to get from place to place:







Response	Chart	Percentage	Count
Yes		84%	235
No		16%	46
Total Responses			281

16. In the past 6 months, about how often did you use active transportation?






Response	Chart	Percentage	Count
Daily		25%	57
Weekly basis (Please specify number of times per week)		57%	129
Monthly basis (Please specify number of times per month)		19%	44
Total Responses			227

16. In the past 6 months, about how often did you use active transportation? (Weekly basis (Please specify number of times per week)) Ranged from once/month to 4 times/week.







17. What types of active transportation do you use? (Check all that apply)

Response	Chart	Percentage	Count
Walking		96%	218
Cycling		29%	66
Skateboarding		0%	1
In-line Skating		0%	1
Wheelchair		0%	1
Other, please specify:		4%	9
Total Responses			228

18. What is the average distance you travelled when you used active transportation? (Including short trips around the village)

Response	Chart	Percentage	Count
Less than 1 km		41%	93
1 km to less than 3 km		46%	105
3 km to less than 5 km		8%	19
5 to 10 km		4%	9
More than 10 km		5%	12
Total Responses			229

19. In the past 6 months, did you use active transportation to get to any of the following locations at least once? (Check all that apply)

Response	Chart	Percentage	Count
School		10%	22
Work		21%	47
Shopping		84%	193
Park		47%	108
Bank		75%	172
Community Centre/ Arena		24%	56

Restaurant		56%	128
Personal appointment (e.g. doctors, hair salon)		46%	105
Library		49%	112
Place of worship		11%	25
Friend or family's home		32%	73
Other, please specify:		14%	32
Total Responses			229

20. What are some of the reasons that you use active transportation instead of driving? (Check all that apply)

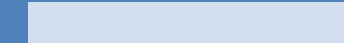



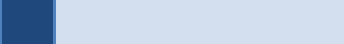

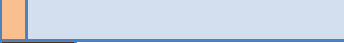


Response	Chart	Percentage	Count
Physical activity		86%	197
Can do it with others		19%	43
Save money		41%	94
Good for the environment		51%	116
Mental well being		51%	116
Don't have a car		14%	31
Other, please specify:		21%	49
Total Responses			229

21. What may keep you from using active transportation more than you do right now? Please rate the significance of each of the following barriers on a scale from 1 to 5, where 1 means not significant, and 5 means very significant.

	1	2	3	4	5	Total
Weather	39 (17%)	29 (12%)	42 (18%)	30 (13%)	95 (40%)	235
Time	40 (18%)	43 (19%)	45 (20%)	41 (18%)	56 (25%)	225
Lack of sidewalks, trails, or paved shoulders	61 (27%)	26 (12%)	47 (21%)	39 (17%)	50 (22%)	223
Unsafe conditions (e.g. traffic volume, traffic speed, poor lighting)	53 (25%)	29 (14%)	40 (19%)	36 (17%)	55 (26%)	213
Distance	47 (20%)	24 (10%)	43 (19%)	31 (13%)	85 (37%)	230
Fear of crime	145	24	21	2 (1%)	9 (4%)	201

	(72%)	(12%)	(10%)			
Other	9 (26%)	1 (3%)	5 (14%)	6 (17%)	14 (40%)	35



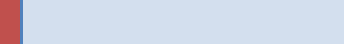
22. What would make it more likely that you would use active transportation more often than you do right now?






Response	Chart	Percentage	Count
More information		6%	15
The right equipment		7%	18
Better sidewalks/trails		45%	111
More paved shoulders		49%	120
Someone to do it with		16%	38
Skills training		2%	5
Don't know		7%	17
Nothing		22%	53
Other, please specify:		15%	37
Total Responses			244

23. The more connected places are by sidewalks, trails and paved shoulders, the easier it is to get around actively. Thinking about the village you are in most often:

	1	2	3	4	5	Total
a) How easy is it to get from place to place using active transportation? (Select a number, where 1 is very difficult and 5 is very easy)	12 (5%)	26 (11%)	81 (34%)	64 (27%)	57 (24%)	240
b) How safe do you feel using active transportation? (Select a number, where 1 is very unsafe and 5 is very safe)	13 (5%)	20 (8%)	57 (24%)	70 (29%)	81 (34%)	241

24. What things impact your feelings of safety? (Check all that apply)


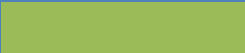
Response	Chart	Percentage	Count
Traffic speed		64%	153
Traffic volume		51%	122
Fear of crime		7%	16

Lack of safe crossings		38%	92
Undefined space for pedestrians and cyclists		54%	130
Lack of signage		12%	28
Inadequate lighting		28%	67
Other, please specify:		17%	41
Total Responses			240





25. Please identify specific places in the village that you find unsafe for active transportation.

There 158 response(s) to this question. Top locations identified in Minden: Highway 35, bridge on Bobcaygeon Road, intersection of Water St. and Bobcaygeon Road, Newcastle St. In Haliburton: Highway 118 into Haliburton, County Road 21 to Independent Grocery, corner of 118 and York St, CR 21 bridge, Maple Ave. bridge.


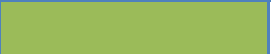
a) Have you used the Walk, Bike & Be Active map?

Response	Chart	Percentage	Count
Yes		29%	72
No		71%	175
Total Responses			247

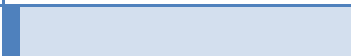

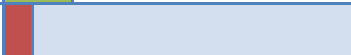

b) If yes, how useful have you found the map? (Check one)

Response	Chart	Percentage	Count
Not useful		2%	4
Somewhat useful		19%	42
Very useful		12%	26
n/a		68%	150
Total Responses			222

c) Have you used the Walk, Bike & Be Active signs?

Response	Chart	Percentage	Count
Yes		23%	55
No		77%	186
Total Responses			241

d) If yes, how useful have you found the signs? (Check one)

Response	Chart	Percentage	Count
Not useful		4%	9
Somewhat useful		19%	43
Very useful		8%	18
n/a		68%	151
Total Responses			221

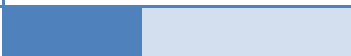
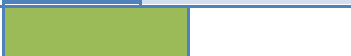
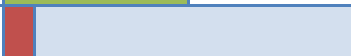
27. What are the things that make the village a good place for active transportation?

There were 169 responses to this question. Top responses for Minden: Riverwalk and boardwalk, sidewalks, proximity – things are close together. For Haliburton: Sidewalks, trails and paths, size and proximity, York St.

28. What would improve things for active transportation in the village?

There were 141 responses to this question. Top responses were more and better sidewalks, especially outside of town (Haliburton) and on Highway 35 (Minden), more and safer crosswalks, paved shoulders/bike lanes, better connections.

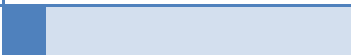

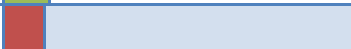
29. Do you drive into the village so you can use the trails or sidewalks to walk or bike for exercise?

Response	Chart	Percentage	Count
Yes		39%	94
No		53%	127
n/a		9%	21
Total Responses			239

If yes, what trails or routes do you use?

There were 93 responses to this question. Riverwalk was the most frequently cited trail used in Minden. The Head Lake Trail was most frequently cited in Haliburton.

30. Have you participated in any of the following walking or cycling activity/events in Haliburton County? (Check all that apply)

Response	Chart	Percentage	Count
Commuter Challenge		11%	23
Sneaker Day		13%	28
Walk to School Day		12%	25

Cycling Workshop		13%	27
Cycling Festival		21%	44
Other, please specify:		17%	35
n/a		49%	102
Total Responses			209

31. a) Are you aware of the Share the Road campaign?

Response	Chart	Percentage	Count
Yes		85%	211
No		15%	36
Total Responses			247

b) If yes, how effective do you think it has been in making roads safer for cycling? (Check one)

Response	Chart	Percentage	Count
Not effective		15%	35
Somewhat effective		50%	116
Very effective		12%	28
Don't know		24%	55
Total Responses			234

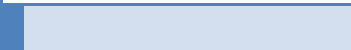

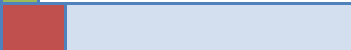

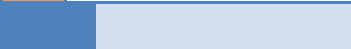

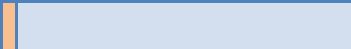
32. Do you have any other comments?

95 responses given

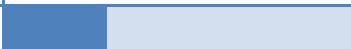
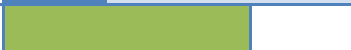
33. What Township do you live in?

Response	Chart	Percentage	Count
Dysart et al.		47%	113
Algonquin Highlands		9%	21
Minden Hills		35%	85
Highlands East		5%	11
Other, please specify:		4%	10
Total Responses			240

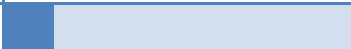

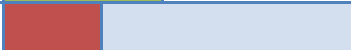

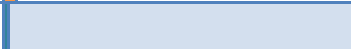

34. Please choose the age range that you fit into.

Response	Chart	Percentage	Count
15-24		6%	14
25-34		10%	25
35-44		18%	42
45-54		17%	41
55-64		27%	64
65-79		18%	44
80+		4%	10
Total Responses			240

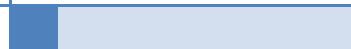

35. Are you male or female?

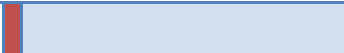





Response	Chart	Percentage	Count
Male		29%	70
Female		71%	170
Total Responses			240

36. Which of the following best describes your household?



Response	Chart	Percentage	Count
One person		14%	33
Two person		46%	108
Two parent with children		28%	66
Lone parent with children		3%	8
Non-family (sharing with friends)		1%	3
Other, please specify:		8%	19
Total Responses			237

37. a) Which of the following best describes you? (Please check all that apply)







Response	Chart	Percentage	Count
Employed Part-Time		13%	31
Employed Full-Time		33%	78

Unemployed		5%	12
Self-employed		20%	48
High School Student		1%	3
College/University Student		2%	4
Retired		28%	66
Other, please specify:		10%	23
Total Responses			238






b) Do you work from home?

Response	Chart	Percentage	Count
Yes		27%	64
No		73%	171
Total Responses			235

38. What is your total family income over the past 12 months (before taxes and deductions)?

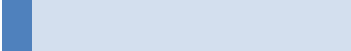





Response	Chart	Percentage	Count
Less than \$20,000		11%	24
\$20,000-\$39,000		18%	40
\$40,000-\$59,000		16%	36
\$60,000-\$79,000		15%	33
\$80,000-or more		27%	60
Don't know		13%	30
Total Responses			223

39. How many cars are there in your household?

Response	Chart	Percentage	Count
0		9%	22
1		38%	90
2		45%	109
3		4%	9
4		3%	8

More than 4		1%	2
Total Responses			240

40. How many drivers are there in your household?

Response	Chart	Percentage	Count
0		7%	18
1		18%	44
2		68%	163
3		4%	10
4		1%	3
More than 4		1%	3
Total Responses			241



APPENDIX D: COMPLETE INVENTORY

POLICY AND PLANNING

What policies exist to support AT?

LIST OF POLICIES THAT EXIST TO SUPPORT AT

HALIBURTON COUNTY OFFICIAL PLAN (AMENDED 2010)

- Land Use Objectives 1.3: "...and enables healthy, liveable and safe communities."
- Settlement Areas 2.3.2: "...A mix of housing, employment, parks, open spaces, and transportation options will be promoted."
- Policies and Actions 2.3.5.3: "Land use patterns and development should...allow for compact development that is designed in such a way to support and encourage active transportation as well as the establishment of future transit."
- 2.3.5.16: "Council shall...direct municipalities to maintain the well-being of urban downtown areas and main streets and plan to meet the needs of pedestrians."
- Transportation 2.4.2.11: "...Trails, corridors, roads and rights-of-way for significant transportation, recreation and infrastructure facilities will be protected for future use."
- 2.4.2.13: "The County recognizes that recreational trails are important and will encourage the maintenance of existing recreational trails and the establishment of new recreational trails..."
- 2.4.2.15: "A Cycling Master Plan (July 2008), completed by the Haliburton Highlands Cycling Coalition, sets out a 20-year vision for promoting safe and enjoyable cycling in Haliburton County. The local official plans are encouraged to have regard for the objectives in the Cycling Master Plan and promote the implementation of the recommendations made in the Cycling Master Plan, where economically feasible. This is particularly important given the cross boundary nature of cycling routes in the County which connect various municipalities."
- 2.4.2.16: "The County will have regard for the objectives identified in the Cycling Master Plan and promote the implementation of the recommendations on County roads, taking into consideration economic feasibility and land ownership of the road allowance."

DYSART ET AL OFFICIAL PLAN (AMENDED 2010)

- passed resolution to adopt Active Communities Charter in 2009
- 2.1.1 Introduction "...Further, the Municipality recognizes the value of projects undertaken by community groups and where appropriate, incorporates policy to support these initiatives. The Built Form Guidelines (Haliburton Business Improvement Association, 2005), Haliburton County Cycling Master Plan (Haliburton Highlands Cycling Coalition, 2008) and An Active Transportation Plan for the Village of Haliburton (The Communities in Action Committee, 2009) provide additional background and context for the policies of this Plan.
- 2.2.4 Promotion of Recreation Opportunities "The Municipality will promote the health of its residents by providing and supporting a variety of public recreation opportunities and uses. The Municipality will promote recreational opportunities by: ...incorporating the principles of active transportation into municipal infrastructure projects, where possible and economical to do so; and encouraging new development to incorporate the principles of active transportation, where possible and economical to do so."
- 2.2.7 Promotion of Liveable Settlements "...It is an objective of this Plan to promote healthy, liveable and safe communities by: ...encouraging healthy, active communities by applying principles of good community design, active transportation, as well as, providing parks and recreation opportunities."
- 3.2.2.3 Municipal Roads "...The Municipality recognizes that the road network serves pedestrian and non-motorized vehicles in addition to vehicular traffic. Planning for public infrastructure road projects will consider the needs of pedestrians, non-motorized uses, as well as, motorized uses. Development approvals will encourage good principles of active transportation in the project design."

- 4.1 Settlement Pattern “Opportunities for intensification and redevelopment will be encouraged and promoted through: ...the improvement or enhancement of facilities for active transportation.”
- 4.8 Active Transportation and Recreational Trails “The Municipality will promote development policies that encourage an active, healthy community and will use the *"Active Communities Charter"* as a framework for planning and decision making. The Municipality will use the reports *"An Active Transportation Plan for the Village of Haliburton, 2009"* and *"Haliburton County Cycling Master Plan, 2008"* as resources to help inform future infrastructure planning, especially regarding road maintenance and development. Within the Haliburton Village Urban Policy Area and Haliburton Village Service Area, the Municipality will encourage the development and improvement of pedestrian and bicycle access and linkages. This will be accomplished through review of development applications and complementary public projects. In particular, the Municipality will implement the direction and recommendations of the Streetscape Project, 2009, where appropriate and economical to do so.”
- 12.4 Site Plan Control “...Council will seek to achieve the following wherever possible, recognizing that not every objective is achievable on every site: ...furtherance of a pedestrian-friendly street and sidewalk environment, ...”
- 21.8.4 Implementation “...A site plan and agreement may address the following as appropriate: ...the location and design of walkways and walkway ramps; ...the location and type of lighting, landscaping and preservation or restoration of natural vegetation; ...the requirements for snow removal facilities; and - the accessibility of facilities for person with disabilities. “

ALGONQUIN HIGHLANDS OFFICIAL PLAN (AMENDED 2010)

- passed resolution to adopt Active Communities charter in 2011
- 2.1.3 This Plan is intended to: ...promote and encourage healthy, active communities;
- 2.2.4 The Township values the health and well-being of its residents, and holds a broad vision of health that recognizes balanced economic, environmental and social development to enhance human health. It is further recognized that health is an important element in building an economically viable, socially vibrant and environmentally sustainable community.
- 3.1.2 The Township shall strive to maintain a safe, clean, tranquil, healthy, liveable environment through the application of appropriate by-laws and through the cooperation and involvement of the residents.
- 3.3.4 The provision of pedestrian and active recreational linkages, such as cycling, will be encouraged, particularly within settlement areas.
- 3.3.6 The provision of cultural, recreational and educational facilities is encouraged to ensure accessibility by all. The development of an environment that facilitates universal access for all persons is encouraged.
- 4.8.1 The Township recognizes the value of trails in helping to promote health, tourism, economic development and transportation.
- 4.8.2 The Township will support the development of a co-ordinated series of recreational trails, including water trails, in appropriate locations, particularly along unopened road allowances.
- 5.1.10 New development is encouraged to make efficient use of land and infrastructure, accommodate active transportation needs, and encourage mixed use and a range of housing options that can be serviced by private sewage disposal and water supply systems.
- 6.3.6 Community improvements may include: Fostering the well-being of main streets; Planning public streets and places to ensure they are safe, lively and accessible to all; Improvement or enhancement of infrastructure for active transportation...
- 6.11.5 The Township will support the continuation and expansion of the existing trail systems and recreational programs in the Township by: Recognizing the importance of recreational trail associations, recreation clubs and other community groups and their recreation programs; Incorporating the principles of active transportation, including the Haliburton County Cycling Master Plan, into municipal infrastructure projects, where possible and economically feasible; and, Developing a Trails Master Plan to provide the basis for the establishment of an expanded trail network in the Township.
- 8.1.4 Active transportation (e.g., bicycling and walking) can play a positive role in improving mobility

and the quality of life as part of a balanced transportation system. The Township will support the development of bicycle and walking routes, and will use the Haliburton County Cycling Master Plan as a resource to help inform future planning.

- 8.1.5 A network of trails created through private and public initiatives may be encouraged within the municipality to complement the transportation system. All development shall respect the environment.

HIGHLANDS EAST OFFICIAL PLAN (AMENDED 2012)

- passed resolution to adopt Active Communities Charter in 2009, readopted in 2011
- 1.1.2 “Highlands East will support the health and well-being of all residents by promoting and encouraging and accessible, healthy and active community.”
- 1.2.3.1 “...and will encourage sustainable forms of recreation that promote healthy lifestyles”
- 1.2.6.3 “Social sustainability addresses the basic community need for housing, education, health care, employment, food, safety, security and cultural and recreational opportunities. The policies of this Plan support all citizens in achieving a respectable quality of life through the development of a healthy community and the provision of necessary human services and programs.... The Municipality values the health and well-being of its residents. Decisions in land use planning related to transportation, recreation and economic development can support and foster the creation of a healthy, active and accessible community. The policies of this Plan recognize that health is an important element in building an economically viable, socially vibrant and environmentally sustainable community.”
- 2.1.2. Healthy, Active Communities 2.1.2.1 Measures that promote a healthy and active community are strongly encouraged within the municipality. Such measures include, but are not limited to, the facilitation of pedestrian movement within settlement areas, improving accessibility for persons with disabilities and the elderly, providing a range of parks and open space areas, accommodating a range and mix of land uses within appropriate areas, focusing growth within settlement areas, avoiding land use patterns which cause or lead to environmental degradation, and accommodating alternate forms of transportation where appropriate and feasible.”
- 2.1.12.1 “...and Council also recognizes the value of these facilities in contributing to the health and well-being of residents and visitors.”
- 3.1.1.4 “To support and foster the development of a healthy and active rural community.”
- 3.2.1.4 “To promote and facilitate the settlements as places where walking and biking can be safely accommodated.”
- 3.2.4.3 “New development within the Settlement Area designation is encouraged to accommodate active transportation needs, make an efficient use of land and infrastructure and provide for a range/mix of land uses.”
- 4.7 ACTIVE TRANSPORTATION 4.7.1 Highlands East recognizes the positive role that active transportation can play in improving mobility as well as the health and quality of life within the community. On this basis Council supports the development of walking and/or cycling routes within the Municipality. Resources such as the Haliburton County Cycling Plan may be used as a basis to support future strategies and measures designed to implement active forms of transportation in the community.”
- 5.6.1 The following items may be regulated under a site plan agreement:
 - a) the massing and conceptual design of proposed buildings;
 - b) the relationship of proposed buildings to adjacent buildings, streets, and public areas;
 - c) interior walkways, stairs, elevators, and escalators accessible to the public from streets, open spaces and interior walkways in adjacent buildings;
 - d) exterior design including character, scale, appearance, and design features of buildings and their sustainable design;
 - e) sustainable design elements on any adjoining highway including trees, shrubs, hedges, plantings or other ground cover, permeable paving materials, street furniture, curb ramps, waste and recycling containers and bicycle parking facilities; and,
 - f) facilities designed to have regard for accessibility for persons with disabilities.Additionally, the following terms were included in the glossary: accessibility, active transportation, recreation

MINDEN HILLS OFFICIAL PLAN (IN DRAFT 2012)

- 1.2 Vision "...It is also recognized that maintaining the health and well-being of the citizens of Minden Hills is integral to the development of a sustainable, economically viable and socially vibrant community."
- 1.3.2.3 "The urban area will continue to develop a community that is walkable, safe and accessible."
- 1.3.6 Wellness and Quality of Life
- 1.3.6.2 "The impacts of planning approvals on wellness and quality of life will be a factor in the administration of planning approvals."
- 1.3.6.3 "The planning process will be utilized to help healthy active communities that support active lifestyles and active transportation."
- 2.2.3.2 "Open space ((parks, recreation facilities, recreational trails and natural areas) and institutional uses (schools, churches, nursing homes, community facilities, libraries) are permitted in the residential neighbourhoods, subject to the approval of a zoning by-law amendment..."
- 2.2.5.1 Goals of Intensification, d) To ensure residential intensification opportunities contribute to the character and quality of Minden through the use of good building and site design, and contributing to the Township's efforts to become more accessible and active.
- 2.3.3.2 c) Pedestrian and bicycle access and facilities, both along and across Highway 35, with links to and between existing areas and destinations will be a primary consideration in the long term development and redevelopment of the Highway 35 corridor.
- 2.4.1 Purpose of Downtown designation d) Create attractive pedestrian and cycling linkages within the Downtown and from the Downtown along Gull River and the Riverwalk, specifically where recommended by Council endorsed or approved plans such as the Active Transportation Plan for Minden.
- 2.4.2 Downtown Vision - The Vision for Downtown Minden is to creatively evolve to become a leading riverfront destination in Ontario by showcasing its high quality small town culture and providing accessible, healthy, active experiences and opportunities to residents and visitors on a year round basis.
- 2.4.4.1 General policies – The following policies are intended to guide proposals for new development or redevelopment in the Downtown designation: c) Hospitality and tourist oriented uses that will enhance the pedestrian and cycling linkages between the downtown and open space areas are encouraged;
- 2.4.4.4 Public Space in the Downtown
- Public land in the Downtown designation includes streets, sidewalks, parking lots, parks and administrative or public buildings. It is a policy of this Plan that the Township may partner with stakeholders to maintain public space in a manner that is complementary to the Downtown and creates a more accessible pedestrian environment. In conjunction with this Official Plan, the Township has prepared a Village Master Plan, which provided the following recommendations for projects aimed to revitalize public lands and improve accessibility:
- a) To widen sidewalks and create bumpouts along Water Street;
- b) To establish a signalized traffic control at the intersection of Milne Street, Bobcaygeon Road and Newcastle Street;
- c) To establish a playground or plaza and public washroom and formalize a public parking area south of and accessible from Bobcaygeon Street and also accessible from Peck Street;
- d) To establish a consistent theme for the Downtown which is incorporated into wayfinding signage, directional signage, murals and cultural heritage signage and public art;
- e) The use of site planning, landscaping and lighting to create strategic clearly defined gateways;
- f) The use of paths and pedestrian crossings to encourage active transportation and make access in the Downtown more accessible and free of barriers; and,
- g) Streetscape improvements including the replacement of overhead wires with underground installations, traffic calming, introduction of streetscape features such as lighting furniture, vegetation and wider sidewalks, subject to the availability of resources and/or cost sharing with stakeholders.
- 2.5.4.2 – Development Criteria (Downtown Transition) g) roads, sidewalks and trails will be designed

to be safe, accessible and where feasible, interconnected, to facilitate pedestrian and cycling access and linkages;

- 2.8.1 Purpose (Parks and Open Space) c) where applicable, provide safe and connected pedestrian and non-motorized vehicular access to public spaces and shorelines.
- 3.1.3.6 Rural Settlement Areas should facilitate pedestrian mobility and other modes of active transportation.
- 3.2.4.3 Waterfront and Adjacent Development h) On large sites, efforts should be made to encourage pedestrian linkages between uses and adjacent sites.
- 5.10.3 Pedestrian walkways, bicycle lanes and multi-use recreational trails should link public facilities to each other and to residential areas. Special attention will be given to developing additional pedestrian linkages to existing recreation facilities.
- 5.10.9 Access to schools will be a major consideration when reviewing subdivision applications. Schools must be easily accessible by pedestrians and cyclists and be linked by walking paths, bicycle lanes and multi-use recreational trails to other public facilities and services
- 5.10.11 As the population of the township ages, more attention shall be given to housing for the elderly....the following options will generally be considered: ...the provision of well-lit accessible streets, sidewalks as well accessible public building, facilities and places of business...
- 5.11.3 Such expansion will be considered within the following context: an efficient road pattern will be maintained and established with proper motor vehicle, pedestrian and bicycle access and links to any Township, County or Provincial Road;
- 5.14.6.3 Council shall give consideration to the preparation of a Municipal Roads Needs Study. Such a study shall include an examination and analysis of municipal roads to determine existing road conditions, the needs of all users, and, where deficiencies are identified, the expenditures necessary to improve and upgrade municipal roads to an acceptable level. Such a study should establish a priority of needs for such works.

5.16 Active Transportation

- 5.16.1 Minden Hills recognizes the positive role that active transportation can play in improving mobility as well as the health and quality of life within the community. On this basis Council supports the development of walking and/or cycling routes within the Township and will use studies such as the
- Active Transportation Master Plan for Minden (2008) and the Haliburton County Cycling Master Plan (2008) as resources to help inform future infrastructure planning, with respect to road development and maintenance. Other potential initiatives that could facilitate and support active transportation include:
 - a) the establishment of safer ingress and egress to Highway 35;
 - b) incorporating design features and traffic calming measures to slow traffic in gateway areas;
 - c) establishment of a community safety zone at Parkside Street and Bobcaygeon Road;
 - d) compile an integrated trails, sidewalk and pathway inventory; and,
 - e) maintain and improve existing sidewalk and trail infrastructure.
- 6.4.2 Site Plan control shall be utilized by the Township to ensure its compatibility with the vision and principles of this plan and to ensure:...safe and efficient access for all modes of transportation...
- 6.4.3 "... A dedication may also be required to improve or accommodate safe access for pedestrians and bicyclists"
- 6.9.2 Requests for site specific changes to the Official Plan may be considered by Council upon application, and will be evaluated on the basis of the following criteria:...the economic and health benefits and financial implications to the township...
- 6.16.3 Criteria for Delineating Community Improvement Project Areas shall be determined according to the following criteria. a) areas that show deficiencies in public services including: iii) deficiencies in roads, sidewalks, street-lighting and fire hydrants; ...vi) impediments to pedestrian and bicycle movement. B) areas that are deficient in social or recreational services including: i) lack of recreational facilities including parks, open space and public facilities, playgrounds...

NUMBER OF RELATED PLANS THAT EXIST

Haliburton County Cycling Master Plan
 Haliburton Active Transportation Plan
 Minden Active Transportation Plan
 Minden Riverwalk Master Plan
 Head Lake Trail Master Plan
 Minden Village Development Plan
 Haliburton Built Form Guidelines

COMMUNITY DESIGN AND INFRASTRUCTURE

What infrastructure has been completed?

INDICATOR	DESCRIPTION	LOCATION (COUNTY, MUNICIPALITY)
Retrofits to existing infrastructure to better accommodate AT	York St, Highland St Bobcaygeon Road Paving community pathways in Cardiff	Dysart Minden Hills Highlands East
Trail development	Riverwalk and boardwalk, Logger's bridge and other footbridge Head Lake Trail extension to Patient News Trail improvements to HLT Development of trail between Harcourt and Wilberforce Improvement of trails in Cardiff	Minden Hills Dysart Highlands East
Length of paved shoulders added	~30 km (CRs 21, 503, 1, 648, 121) Deep Bay Rd	County
Number of bike racks installed	8, two per municipality as part of TDM grant Art bike rack Art bike rack 4 Post and ring racks 4 other (Hal Hospital, health centre, SBES, Head Lake park)	All municipalities Minden Hills Dysart Dysart Dysart
Number of benches installed	Bench on Highland St hill (on the way to Echo Hills) Benches on Riverwalk	Dysart

New lighting installed	Pedestrian level lighting – Riverwalk	Minden Hills
Number of signs installed	86 Share the Road signs	County and 4 municipalities
Traffic calming features installed, e.g. speed limits, crossings, signals	Courtesy Crossings – Highland St, York St Crosswalk on Bobcaygeon Rd Reduced speed zone – Bobcaygeon Rd	Dysart Minden Hills
Other amenities built/installed	Dock and gazebo in Dorset	Algonquin Highlands

PARTNERSHIP AND COLLABORATION

Who are contributing partners?

How have they contributed and how often?

List of funded AT projects and funding source

- Building Capacity for Active Transportation (MTO TDM Program)
- Active Transportation Planning in Haliburton (MHP – CIAF)
- Community Trails for Active Transportation (HCDC)
- Active Transportation Route to Schools (HCDC, MHP – CIAF)
- Active Transportation for Haliburton and Minden (MHP – CIAF)
- Active and Safe Route to Schools and Hospital Zone (Safe Kids Canada, HCDC)
- Building Advocates Through Participatory Community Based Research (AT Planning with ASES students) (Heart and Stroke Advocacy Fund)
- Engaging Decision Makers in Creating Healthy Active Communities (HCDC)
- Share the Road (HCDC, MTO Road Safety Challenge)
- Healthy Active Communities Calendar (HCDC)
- Moving Forward with Active Transportation (MHPS – HCF)
- Cycling Master Plan (MHP – CIAF, HCDC)

ABBREVIATIONS:

MTO TDM – Ministry of Transportation Transportation Demand Management

MHP CIAF – Ministry of Health Promotion Communities in Action Fund

HCDC – Haliburton County Development Corporation

MHPS HCF – Ministry of Health Promotion and Sport Healthy Communities Fund

ASES – Archie Stouffer Elementary School

INDICATORS:

Number and list of partners identified in funding applications/projects	County of Haliburton OPP HKPR District Health Unit ***** Communities in Action Committee ***** Haliburton Highlands Cycling Coalition U-Links Centre for Community Based Research ****
Number of times that specific partners have collaborated (more than once, indicated with asterisks)	Municipality of Dysart et al Municipality of Highlands East Township of Minden Hills Township of Algonquin Highlands **

	Minden Riverwalk Committee Head Lake Trail Committee Aging Well Committee Haliburton Highlands Health Services Foundation Haliburton Highlands Trails and Tours Network ** Haliburton County Development Corporation ** Health for Life *** Trillium Lakelands District School Board Haliburton Business Improvement Association Ontario Healthy Communities Coalition ** Green Communities Canada Archie Stouffer Elementary School CANOE FM Lake of Bays Township Algonquin Community Dev't Cooperative
Types of contributions partners make	Financial In-Kind: sign installation, professional time & expertise, volunteer time/expertise, development of communications materials (posters, media releases, brochures), research, project management, financial management, meeting space, consultation on evaluation,
Number of presentations made outside the community	2012 – Complete Streets Forum <ul style="list-style-type: none"> - Ontario Bike Summit - ACT Canada Sustainable Mobility Conference - Webinar: Heart and Stroke Foundation - Webinar: Ont Healthy Communities Coalition 2011 - OGRA/ROMA conference <ul style="list-style-type: none"> - Nova Scotia AT Summit 2010 – FCM Sustainable Communities Conference, <ul style="list-style-type: none"> - Healthy Communities Conference, Owen Sound - Active Transportation workshop, Port Hope - Active Transportation Workshop, Lindsay - Ontario Bike Summit, Burlington - Sustainable Transportation Conference, ACT Canada, Ottawa 2009 - Near North Active Transportation Forum – Oct <ul style="list-style-type: none"> - Ontario Bike Summit – Sept - Sustainable Transportation Options in Rural Communities webinar for Federation of Canadian Municipalities – April 2008 <ul style="list-style-type: none"> - “Active Transportation in Rural areas”, Temiskaming, ON, Feb 2008 - “Active and Safe Routes to Schools in Rural Areas”, for the Ontario Professional Planners Institute webinar on School Based Transportation Demand Management – Dec 08 - “Active and Safe routes to School in Haliburton County”, Green Communities workshop, Ajax, ON, May 2008 - “Creating Active Rural Communities”, Pro Walk Pro Bike Conference, Seattle, WA, Sept 2010

	<p>2007</p> <ul style="list-style-type: none"> - “Rural Active Transportation”, CHNET-Works Fireside Chat webinar - “Active Transportation in Haliburton County” – Walk 21 conference, Toronto, ON, October, 2007
Number of communities who have used or referenced work done in Haliburton county	<p>Norfolk County (Share the Road) City of Kawartha Lakes (STR) Town of Blue Mountains (STR) District of Muskoka (STR) District of Parry Sound (AC Charter) Windsor/Essex (AT promotion & planning) Wasaga Beach (STR) Chatham/Kent (STR) Moose Jaw, SA (STR)</p>
Other: Publications	<p>2009 - Communities, Our Health and Our Future – Understanding and Changing the Built Environment. Case Study about active transportation in rural communities describing Haliburton County initiatives.</p> <p>Improving Travel Options in Small and Rural Communities – Transport Canada. Minden Hills Active Transportation Plan included as a profile</p> <p>Nanaimo Community Active Transportation Plan – mentions Haliburton County Cycling Master Plan and Minden AT Plan, and efforts to promote walking and cycling, as examples in their plan of AT success stories</p> <p>2008 – Case Study – Creating Active Rural Communities – Pedestrian and Bicycle Information Center. This also received award for best short case study from Association of Pedestrian and Bicycling Professionals</p>
Other: recognition	<p>CIA received OHCC Sheila Lupson Healthy Communities Award (2012)</p> <p>CIA designated Landmark Case Study for Sustainable Transportation by Tools of Change (2012)</p> <p>County of Haliburton was recognized by FCM with a Sustainable Communities Award in 2010 for the Share the Road campaign</p> <p>Haliburton and Minden shared the 2010 Walkability Award of Excellence from Green Communities Canada.</p>

EDUCATION AND AWARENESS

What and how many walking and cycling events and activities have taken place?

Indicators:

- number of walking events, and approximate number of participants
- number of cycling events, and approximate number of participants

YEAR	EVENT	APPROX # OF PARTICIPANTS
2005	Summer Walk Series – Haliburton Minden Sneaker Day Walk	Not tracked 80 approx
2006	Shifting Gears Cycling Festival (1 day) Minden Sneaker Day Walk	75 approx 144
2007	Shifting Gears Cycling Festival & workshops Bike to School day World Record Walks (4 municipalities) Minden Sneaker Day Walk	125 approx 50 Not tracked 200 approx
2008	Shifting Gears Cycling Festival & workshops Bike to School Day Commuter Challenge Minden Sneaker Day Walk	300 30 105, 21 workplaces Not tracked
2009	Shifting Gears Cycling Festival & workshops Commuter Challenge Bike to School Day Minden Sneaker Day Walk U-Links Those Other Lectures: Eleanor McMahon	150 117; 17 workplaces 85 Not tracked 25
2010	Shifting Gears Cycling Festival & workshops Commuter Challenge Bike to School Week Minden Sneaker Day Walk	105 189, 15 workplaces Not tracked Not tracked
2011	Shifting Gears Cycling Festival & workshops Commuter Challenge Bike to School Week	50 approx 59, 9 workplaces Not tracked

APPENDIX E: SCREENLINE COUNT FORM AND INSTRUCTIONS

STANDARD SCREENLINE COUNT FORM

Your name: _____

Screenline location: _____

Date: _____ Start Time: _____ End Time: _____

Weather: _____

Brief description of the area including things that might attract or generate pedestrian or bicycle trips:

INSTRUCTIONS:

- ☐ Count all cyclists and pedestrians crossing your screen line under the appropriate categories in the table below.
- ☐ Count for one hour in 15 minute increments.
- ☐ Count cyclists who ride on the sidewalk.
- ☐ Count the number of people on the bicycle, not the number of bicycles. **Please note whether cyclist are wearing helmets.**
- ☐ Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc. **Please note whether pedestrians are crossing at crosswalks, signalized intersections or “jay walking” mid-block.**
- ☐ People using equipment such as skateboards or rollerblades should be included in the “Other” category.

Comment on any relevant incidents or general observations here, for example:

- ☐ Prevalence of jaywalking,
- ☐ Cars stopping or not stopping for pedestrians/cyclists,
- ☐ Speed of vehicles in relation to the speed limit,
- ☐ Volume of traffic,
- ☐ Runners that are counted as pedestrians,
- ☐ People that do not cross the screenline but are travelling in the vicinity, etc.

APPENDIX F: SAMPLE SCREENLINE MAP

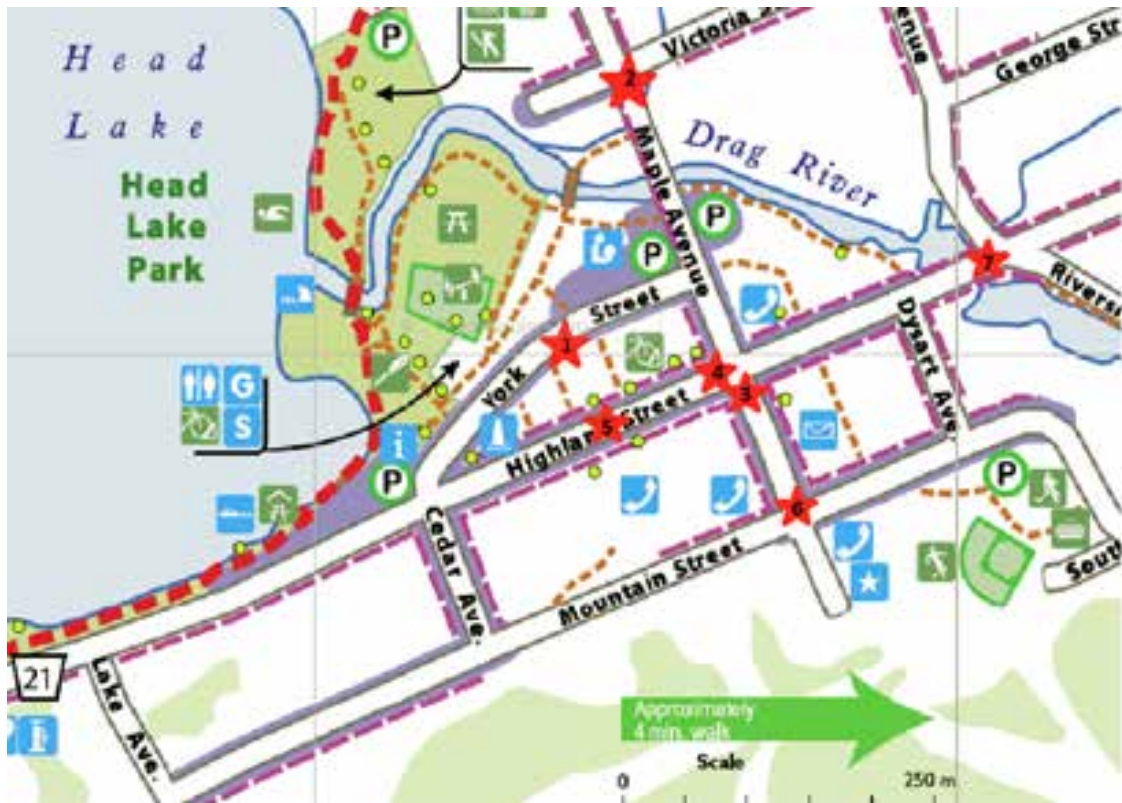
Haliburton – Screenline #2

- Maple Ave. at Victoria St.



APPENDIX G: MAPS WITH ALL SCREENLINE LOCATIONS

HALIBURTON



MINDEN



APPENDIX H: KEY INFORMANT INTERVIEW PROTOCOL AND QUESTIONS

KEY INFORMANT INTERVIEW PROTOCOL

PURPOSE OF THE INTERVIEWS:

Because any changes to the built environment and community design require investment from local government, they have been a key target audience for the work of the Communities in Action Committee (CIA) and its partners. For this reason, it is important for us to find out from a municipal perspective, what the impact of community-based work has been on active transportation in Haliburton County.

- ☐ Inclusion/exclusion criteria
 - one councilor and one staff from each of: Highlands East, Algonquin Highlands, County; two councilors and one staff from each of: Dysart and Minden Hills (because they have been the focus of most of our work)
 - start with people identified as liaisons 2009
 - sits on current council, sat in previous council (i.e. since at least 2006)
 - cross section of staff roles represented
 - municipal councilors who also sits on county council, can answer from both perspectives
 - Preliminary list of potential interviewees is at the end of this protocol
- ☐ Interview to saturation – we will plan on doing a total of 12 interviews
- ☐ Use open ended questions
- ☐ Responses will be recorded on paper by the interviewer, not voice recorded
- ☐ Anticipate each interview would take 30 –45 minutes

TASKS:

- Identify key informants
- Write a cover letter/invitation to participate - Sue
- Contact and confirm participation – Lisa
- Send out questions ahead of time to confirmed participants (about a week before interviews)
- pilot test the interview (colleague who knows the CIA's work and one of the interviewees) – first week of November – Lisa
- interviews take place in third and fourth week of November - Lisa

INTERVIEWER INTRODUCTION:

- Provide a definition of active transportation
- Lisa will introduce herself, and state that she is interviewing on behalf of Communities in Action Committee, representing the Ontario Healthy Communities Coalition
- Review purpose of the interview – this is one of 3 evaluation pieces that we are doing to look at the effectiveness of the work of the Communities in Action Committee; the other two are a community wide survey and observation studies
- What will happen: You will be asked a series of open-ended questions, no right or wrong answers
- Interview will take 30 – 45 minutes
- Interviewer will be taking notes of your responses. Responses from all interviews will be compiled according to themes that emerge. Neither your name nor your municipality/county will be attached to any information you provide.
- We are interviewing 12 staff and council representatives , from all municipalities and the county
- The compiled information will form part of the evaluation report on the work of the CIA
- We'll provide council with a copy of the final report

QUESTIONS:

1. What are the changes you have seen related to active transportation within the county (and your municipality), since 2005 in the following areas:
 - a) Planning - What plans exist to support AT?
 - b) Policy – What policies exist to support AT?
 - c) What infrastructure projects have been undertaken?
 - d) Who have been key partners to the municipality and/or county around active transportation changes you have made?
- e) What changes (if any) in people's use of active transportation have you observed in the community?
2. What have been some of the internal factors of influence on these changes? (Internal factors are those that occur within the community. For example: community attitudes, contributions of community groups like the CIA, municipal priorities, tourism opportunities, etc.)
3. What have been some of the external factors of influence on these changes? (External factors are those that occur outside the community. For example: federal or provincial funding opportunities, changes to provincial policy, other outside initiatives)
4. On a scale of 1-5, how much do you think the work of the CIA has contributed to the observed changes in the community related to AT? 1 = no contribution (changes would have happened without the CIA), 5 = Very important contribution (changes would not have emerged at all without the CIA)
5. On a scale of 1-5, how important do you think the CIA is to future planning/work around AT in Haliburton County (and your municipality)?
1 = not important at all, 5 = very important
6. Any final thoughts or comments?

INTERVIEWER:

Explain what happens next -

- once interviews are complete, information will be compiled
- final report anticipated in the spring
- thank you for your time!



APPENDIX I: KEY INFORMANT CONSENT

CONSENT TO PARTICIPATE IN KEY INFORMANT INTERVIEW

PURPOSE

You have been invited to participate in a key informant interview being conducted as part of a larger evaluation strategy on behalf of the Haliburton Communities In Action Committee (CIA). The purpose of the interview is to assess from both municipal and county level perspectives ***what the impact of community-based active transportation work has been in Haliburton County since 2004***. The key informant interviews will play a key role in the overall evaluation of the work of the Communities In Action Committee and its partners.

PROCEDURE

The interviews will be facilitated by a Consultant with the Ontario Healthy Communities Coalition. She will be asking you the following questions:

1. What are the changes you have seen related to active transportation (AT) within the county (and your municipality), since 2005?
2. What have been some of the internal factors of influence on these changes?
3. What have been some of the external factors of influence on these changes?
4. How much to you think the work of the Communities In Action (CIA) Committee has contributed to the observed changes in the community related to AT?
5. How important do you think the CIA is to future planning/work around AT in Haliburton County (and your municipality)?
6. What has been your personal involvement with active transportation initiatives, including policy, planning, trails, active transportation?

REMUNERATION FOR PARTICIPATION

You will not receive payment or other form of remuneration for your involvement in this study. However, the information gathered through the interviews will be compiled into a report and made available to you through the CIA in the spring of 2012.

POTENTIAL RISKS AND BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

Because we know that there has been limited evaluation done around the impact of active transportation work, the results of this study will also be useful to other community development practitioners, land-use planners, municipal and regional politicians and staff, health promoters, and active transportation advocates.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of all information that is obtained through this interview. All information that you provide will be kept confidential and no identifying information will appear in any report generated from the data gathered. However, with your permission anonymous quotations may be used. Data collected during the interviews will be retained until the report has been finalized.

- ☐ Check here if you **do not** wish anonymous quotations to be used.

PARTICIPATION AND WITHDRAWAL

Participation in this study is voluntary and you may withdraw your participation and/or consent to participate at any time without penalty or consequences of any kind. If you withdraw from the study you may remove your data from the study. You may also refuse to answer any questions you don't want to answer and still remain in the study.

If you have any questions or concerns about the interviews and/or the larger evaluation strategy, please feel free to contact Lisa Tolentino at (705) 488-1979 or by email lisa@ohcc-ccso.ca, or Sue Shikaze, CIA Chair at (705) or by email sshikaze@hkpr.on.ca.

SIGNATURE OF PARTICIPANT

I have read the information provided above and as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Participant (please print)

Signature of Participant

Date

SIGNATURE OF WITNESS

Name of Witness (please print)

Signature of Witness

Date