



Region of Peel Community Cycling Program

Retrospective Analysis 2015-2021

August 2022

 **Region
of Peel**
working with you

 the centre for
active transportation
a project of
 **Clean Air Partnership**

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	5
IMPACT OF COVID 19	8
METHODOLOGY	10
1. OBJECTIVE 1 ACCESS	11
1.1 INCREASING ACCESS TO A WORKING BICYCLE.....	11
1.2 INCREASING ACCESS TO TOOLS & MATERIALS TO MAINTAIN BICYCLES	14
1.3 INCREASING CYCLING FREQUENCY	16
2. OBJECTIVE 2 INCREASING SKILLS AND KNOWLEDGE	18
2.1 BUILDING FAMILIARITY, CONFIDENCE, AND COMFORT WITH USING EXISTING ROADS AND TRAILS.....	19
2.2 INCREASING BASIC BICYCLE MAINTENANCE SKILLS	22
2.3 GROUP RIDES.....	23
2.4 INCREASING PHYSICAL ACTIVITY	25
3. OBJECTIVE 3 INCREASING COMMUNITY	26
3.1 BUILD A COMMUNITY AROUND CYCLING	27
3.2 MAKE CYCLING TO NEARBY DESTINATIONS A SOCIAL NORM.	30
CONCLUSIONS & RECOMMENDATIONS	31
RECOMMENDATIONS	31
CONCLUSIONS.....	35
REFERENCES	36
TABLE 1 Increased access to bicycles.....	12
TABLE 2 Access to tools and materials.....	15
TABLE 3 Transportation mode share	17
TABLE 4 Knowledge of Bike Routes	19
TABLE 5 Rules of the Road	20
TABLE 6 Riding on busy roads with bike lane	21
TABLE 7 DIY Bike Repair & training (Hubs & community events).....	23
TABLE 8 Community Engagement Metrics	27
TABLE 9 Social media engagement.....	29
Figure 1 CCP Key Program Objectives.....	7
Figure 2 CCP Program goals	8
Figure 3 Installed lights and bells.....	9
Figure 4 Outdoor event during COVID.....	10
Figure 5 Mississauga Bike Borrowing Day.....	12
Figure 6 Mississauga Group ride	13
Figure 7 Above Mississauga pop-up, Right- hauling equipment in Brampton	14
Figure 8 Group ride rest break Mississauga.....	16
Figure 9 Reasons for Cycling 2021	18
Figure 10 Mississauga Trail Ride	20
Figure 11 Living Arts Drive (Mississauga Bikes)	21
Figure 12 Bike Repair Skills Promotion	22
Figure 13 Supporting Local business on small group rides	24
Figure 14 Slow Roll Cooksville.....	25
Figure 15 Group ride during COVID19	26

EXECUTIVE SUMMARY

Following the success of the 2015 pilot program, the Region of Peel launched a focused network of community hubs across the Region in subsequent years: Mississauga Cycles focuses on Streetsville/Meadowvale; the Brampton Bike Hub and the Caledon Bike Hub work across northern Peel; and the Sheridan Bike Hub focuses on students and staff at Sheridan College's two campuses in Peel (Davis and Hazel McCallion). The hubs provide bike loans, do-it-yourself bicycle repair support, group rides, mentorship, and skills training. This report focuses on the Mississauga and Brampton/Caledon projects, as these are similar community-based programs available to the broader public, whereas the Sheridan Bike Hub has some significant differences in its audience and how the program is delivered.

The Community Cycling Program is based on successful similar programs in a few major cities in Canada, but Peel was perhaps the first suburban community to launch a cycling initiative of this type. In recent years, other communities in the suburban Toronto area have followed the Region of Peel's lead, with similar programs being established in Scarborough, Markham, and Newmarket. Peel's program has been closely studied and cycling mentorship has proven to produce statistically important changes in transportation behaviour. Cycling trips increased; trips by cars decreased. The premise of the program, that community and recreational cycling opportunities increase the likelihood of transportation cycling has been recently recognized by scholars and planners as an important new factor in increasing cycling for transportation.

The Peel Community Cycling Program has proven to be successful at increasing resident access to working bicycles by enabling residents to repair their existing bicycles as well as repairing used bicycles and either donating them or making them available for loan. From 2019 to 2021 over 2428 bicycles were repaired or tuned-up. It also increased resident access to tools and materials needed to repair bicycles and from 2019 to 2021 6,119 residents participated in bike repair training. In addition, mentorship entry and exit surveys showed consistent increases in cycling behaviour, with bicycle mode share often doubling or tripling amongst program participants.

Cycling with others builds community and enables socializing, while a cycling community increases cycling as the more people who an individual knows who cycle the more likely they are to cycle. By engaging hundreds of volunteers, working with dozens of local partners and directly engaging thousands of residents at over 200 events, the Community Cycling Program is building a cycling community in Peel to help make cycling a social norm.

The Community Cycling Program also added health and fitness, and socializing options for residents as secondary benefits. The program has been very well received by participants as seen in the multiple quotes from different participants throughout the report and the positive behaviour changes evidenced in the data. The CCP helped the Region of Peel make progress towards the goals of its Strategic Plan, as well as its sustainable transportation target of shifting trips so that 50% are made through sustainable modes of travel by 2041.

After reviewing the program challenges and successes, this report concludes that the program has had a positive and lasting impact on residents. Suggested improvements moving forward include focusing on audience expansion and staffing stabilization (which may include pursuing diverse funding sources), and pursuing partnerships/funding to provide storefront space for programs and additional storage space for tools/bicycles. Overarchingly, the CCP requires consistent long-term funding and publicly accessible physical space to reach its full potential.

INTRODUCTION

“The Cycle Mentorship Program had a huge impact in my life. It’s helping me to relie[ve] my stress, to think positive, to exercise more often, to meet new people, and to know new routes, parks, trails and the neighborhood. Now I’ve been able to ride the bike longer distances and it opened my mind to see the bike as a means of transport.”

Mississauga Participant 2021

In 2015, Peel Region launched a ground-breaking community cycling program (CCP). It was based on successful programs in denser urban areas. Peel was the first municipality in Canada (and possibly North America) to launch a cycling program tailored to a suburban community. The goal of the program is to spark cycling adoption and provide the necessary tools for people to travel using bicycles. It combines many of the strategies identified in the guide to ***Increasing Cycling in Canada: A Guide to what works***.¹ Cycling adoption reduces car trips and increases community sustainability and health. In suburban communities, distances are often too long to walk but in many cases are very bikeable. The program’s success resulted in many communities, including Scarborough and Markham, replicating the program. These communities are now expanding their programs. Peel’s program has been closely studied (alongside other cycling programs) and proven to produce statistically important changes in transportation behaviour.² Cycling trips increased; trips by cars decreased. The premise of the program, that community and recreational cycling opportunities increase the likelihood of transportation cycling has been recently recognized by scholars and planners as an important new factor in increasing cycling for transportation.³

Following the success of the pilot program and given sustained community buy-in (smaller temporary programs were continued in Brampton in 2017 and 2018), the Region of Peel launched a focused network of community hubs across the Region in 2019. The hubs provide bike loans, do-it-yourself repair support, group rides, mentorship, and skills training. This retrospective report focuses on the first few years of the CCP (2019-2021), although where available, data from 2015 and 2018 in Brampton is included. In response

¹ Assunção-Denis, M. È., & Tomalty, R. (2019). Increasing cycling for transportation in Canadian communities: Understanding what works. *Transportation research part A: policy and practice*, 123, 288-304.
Verlinden, Y., Manaugh, K., Savan, B., Smith Lea, N., Tomalty, R., & Winters, M. (2019). Increasing Cycling in Canada: A guide to what works. The Centre for Active Transportation, Clean Air Partnership.

² Kearns, M., Ledsham, T., Savan, B., & Scott, J. (2019). Increasing cycling for transportation through mentorship programs. *Transportation research part A: policy and practice*, 128, 34-45.

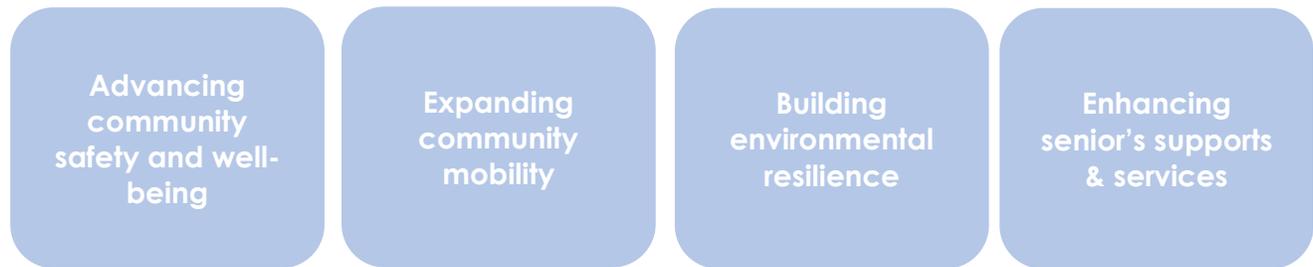
³ Boyer, R. (2018). Recreational bicycling as a “gateway” to utility bicycling: The case of Charlotte, NC. *International journal of sustainable transportation*, 12(6), 407-415.

Ledsham, T., Zhang, Y., Farber, S., & Hess, P. (2022). Beyond downtown: factors influencing utilitarian and recreational cycling in a low-income suburb. *International Journal of Sustainable Transportation*, 1-22.

Piras, F., Sottile, E., Tuveri, G., & Meloni, I. (2021). Could there be spillover effects between recreational and utilitarian cycling? A multivariate model. *Transportation Research part A: Policy and practice*, 147, 297-311.

to COVID 19 pandemic lockdowns and public health constraints, the programs quickly pivoted towards bicycle provision, community outreach and online programming.

The CCP addresses multiple aspects of the **Region of Peel Strategic Plan**, and its vision of a “Community for Life.” It addresses the Strategic Plan’s 2018-2022 *Term of Council Priorities* including:



The program also addresses the “Thriving” area of focus from the Strategic Plan’s long-term outcomes that aims to ensure that by 2035 Peel will be a community ...

- that is environmentally friendly
- that promotes mobility, walkability, and various modes of transportation
- that embraces diversity and inclusion
- that promotes economic sustainability and future investments in Peel
- where growth is well-managed
- where the built environment promotes healthy living

This retrospective analysis highlights how the CCP addresses the three key program objectives: to increase...

- Access to cycling
- Skills and knowledge about cycling
- Community around cycling

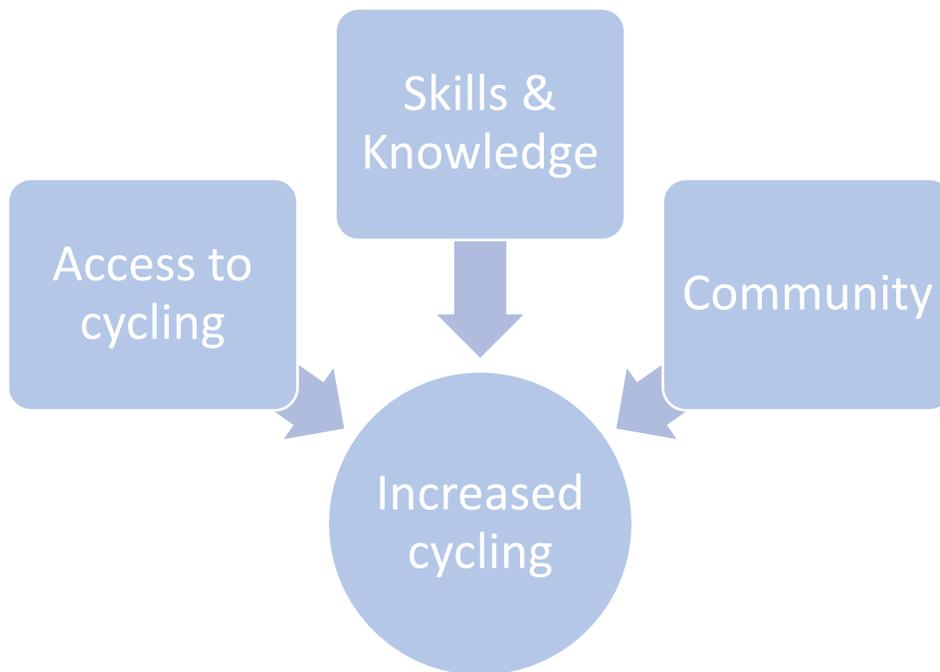


FIGURE 1 CCP KEY PROGRAM OBJECTIVES

This report looks at these objectives over time and across three locations. Each hub is a collaboration between two foundational organizations, one with strong connections to the local community and one with cycling expertise, with the Region of Peel providing base funding. They engage multiple community partners to advance the program objectives and align them with Region of Peel policies, plans, and goals. Mississauga Cycles focuses on Streetsville/Meadowvale; the Brampton Bike Hub and the Caledon Bike Hub work across northern Peel. Data for Brampton and Caledon are combined as Caledon is operated out of the Brampton Hub. An additional bike hub, also funded by the Region of Peel, is located at Sheridan College under the auspices of their Office for Sustainability and operates two do-it-yourself bike repair and bike rental spaces at their two campuses in Peel, one in Mississauga and one in Brampton. Due to its focus on bike access over bike mentorship as well as a student population, it is not included in this review. This evaluation was undertaken by the Centre for Active Transportation (TCAT), a project of Clean Air Partnership, an environmental charity. TCAT has over a decade of experience evaluating cycling projects, including a focus on suburban cycling.

Figure 2 outlines how the CCP program objectives were advanced through specific program goals.

FIGURE 2 CCP PROGRAM GOALS



The program objectives were addressed through a wide variety of programming types. In addition to being a social space with do-it-yourself repair support, the hubs offer bike loans, mentorship, and other programs to encourage cycling. Over the years more than 15 different types of cycling programs have been offered through the CCP (APPENDIX A). Most, like the cycling mentorship programming and group rides have been available at all locations in all years. Other initiatives like seniors and youth programming have been offered when and where suitable. The community partnership structure of the CCP means programming needs and opportunities are shaped by the needs and audience of the community partners.

A community bike hub is a welcoming social space where residents can meet other people who cycle, learn more about cycling and go cycling together. They offer access to do-it-yourself bike repair overseen by knowledgeable staff and volunteers.

IMPACT OF COVID 19

The hubs developed creative responses to COVID associated closures of in-person activities. Hub managers increased the emphasis on mobile delivery of tune-ups and

mechanical evaluations at outdoor city events once they resumed. For example: Brampton and Caledon hosted 46 events and delivered service to 2429 residents many of whom were unaware of the CCP services. Over a thousand bells and lights were installed by the CCP creating safer cycling conditions for all.

FIGURE 3 INSTALLED LIGHTS AND BELLS



Nevertheless, as social isolation is a feature of pandemic control, both mentors and mentees hesitated to meet in person for rides and socializing. This made the goal of building community far more difficult. Still, the residents of Brampton, Caledon and Mississauga showed strong interest in the program and cycling. In an indication of the impact of COVID 19, 82 people initially signed up for the Brampton and Caledon Pedalwise Mentorship program in 2021 but only 35 ended up fully participating. The rest benefitted from the access to bicycles that the CCP provided during the pandemic at a time when bicycle stores were sold out and repair services were more difficult to access. As pandemic fears subside mentorship participation will increase again.

FIGURE 4 OUTDOOR EVENT DURING COVID



The drop-in aspect of hubs is an important part of all three program objectives. Do-it-yourself drop-ins increase access to working bicycles, increase mechanical skills and build community through the sharing of goals, knowledge, and successful repairs. During the worst of the pandemic, when indoor activities were not possible, the CCP pivoted to outdoor programming. The increased visibility of outdoor booths to the community at large helped increase community awareness of the program and has become a regular practice.

Despite the obstacles presented by COVID 19, the CCP has continued to grow and engage residents of the Region. Cycling for transportation increased in popularity during the pandemic as it offered a way to both get exercise and avoid sometimes crowded transit. The increased cycling during the pandemic coincided with an acceleration in the building of cycling infrastructure in the Region.

Active transportation is growing in popularity in the Region of Peel and the CCP supports residents of all ages in their journey to active living.

METHODOLOGY

Eight different program reports from 2015 through 2022 were reviewed (See Sources Appendix B) for input into this summary report. In addition to the data review, three key informant interviews were conducted with staff members of the NGO partners delivering the CCP on behalf of Peel Region. The key informants were chosen by the

Region of Peel. These interviews were conducted in March/April of 2022 over Zoom and transcribed.

The following sections of the analysis are organized by the overall program objectives of increasing: access, skills and knowledge and community. They are then subdivided into the goals from Table 1 'Program Goals'.

Given that the two programs (Brampton/Caledon Bike Hubs and Mississauga Cycles) had different community partners and thus operated differently, they took slightly different approaches to data collection, methods, and strategies. Not all data points are available for all years or all locations. In 2021, an attempt was made to improve the consistency of data with an agreed upon set of questions. However, the timing of data was not consistent as the programs are delivered in slightly different cycles. These inconsistencies limit the comparisons between programs, but nonetheless they still allow us to review and summarize the overall program impact as reported by these sources.

1. OBJECTIVE 1: ACCESS

1.1 INCREASING ACCESS TO A WORKING BICYCLE

"...most importantly, this biking program has made my father-in-law completely independent in exploring nearby places and able to visit the temple on his own"

Mississauga Participant 2020

Bicycling requires access to a bicycle, and while some people see the cost of a working bicycle as negligible, for many lower and even middle-income people a bicycle and associated repairs can represent a substantial capital investment. Many of the people who would most benefit from access to a bicycle to improve their health and mobility are those who are least able to afford a bicycle.

A bicycle lending library allows residents to borrow bicycles for a variety of time frames from a week to several months. This allows people to decide if investing in a bicycle is right for them.

The data collected shows that the CCP increased resident access to working bicycles in all years of operation. Table 1 summarizes the number of bicycles loaned, repaired, and donated back into the community as well as the number of mechanical evaluations and tune-ups provided. Both hubs refurbish and repair donated bicycles and then donate them back into the community. They also lend bicycles. The Brampton Bike Hub and Mississauga Cycles lend bicycles to program participants. The Brampton Bike Hub's bikes come from refurbished bicycle donations and require a refundable deposit while Mississauga Cycles lends bicycles that were

purchased for the program.

TABLE 1 INCREASED ACCESS TO BICYCLES

Data	Mississauga Cycles			Total	Brampton and Caledon Bike Hubs					Total	Region of Peel
	2019	2020	2021	2019 to 2021	2015	2018	2019	2020	2021	2015 to 2021	2015 to 2021
Bicycles loaned	31	33	33	97	26	53	54	38	46	191	288
Bicycles repaired or tuned-up (personal and donated)	50	167	209	426	235	60	20	132	1850	2297	2723
Bicycles donated into community	6	23	82	111	125	30	30	38	97	320	349

- Bicycles Loaned: Bicycles lent to mentorship program participants (and other select community programs)
- Bicycles repaired and tuned up: Personal bicycles or donated bicycles that are either overhauled or tuned up
- Bicycles donated into community: Used bicycles that are donated to the Community Cycling Program are then, depending on the condition of the bicycle, refurbished or safety checked. These bicycles, now in a safe and usable condition, are then donated by the Community Cycling Program to other community members (past recipients include participants who completed the mentorship program and children selected through a partnership with the Boys and Girls Club)

Many different outreach programs put working bicycles into residents' lives. For example: since 2017, the Brampton Bike Hub annually teams up with Massey Street Public School to donate bicycles to their bike swap program and repair bicycles donated by the

FIGURE 5 MISSISSAUGA BIKE BORROWING DAY



community. They also partner with the Toronto and Region conservation Authority to lend bicycles for the “Ride in Nature” bike tour program enabling residents without bicycles to enjoy this special experience. Since 2020, Mississauga Cycles have given away refurbished bicycles to newcomers who successfully completed the Cycling Mentorship enable them to continue cycling after their program participation ended. In 2020, during the Covid-19 Pandemic, there was a noticeable increase in the popularity of cycling and demand for bicycles from the Brampton Bike Hub's library. This resulted in them reducing the length of time a bicycle could be borrowed to a two-week maximum to ensure a greater number of residents had an opportunity to borrow a bicycle.

The value of access to bicycle repairs and loans is significant and contributes to community resilience. Bicycles provide transport resilience in times of high gas prices and power outages. During the pandemic, when public transit was risky and service was reduced, this was also true. The pandemic also increased demand and disrupted supply chains, resulting in a global shortage of bicycles (especially lower cost entry-level ones). This increased the value of access to bicycle repair and loans for Peel residents. This was especially true in Brampton as the only bicycle store in downtown Brampton closed.

The cost of bicycles is not insignificant, especially for lower income households. A good used bicycle equipped and suitable for transportation costs at least \$300, and often costs much more. This needs to be multiplied by the number of people in a household. A basic tune-up at a bike shop runs from \$60-100, and labour charges generally run \$100 per hour. With these assumptions, the value of the tune-ups and donations provided by the program is at least \$250,000. The value of the bike loans is much harder to quantify as this is a service completely unavailable elsewhere in the Region. In Toronto, a bicycle rents for approximately \$150 per week. A bicycle loan makes it possible for residents to decide whether or not to invest in a bicycle.

These approaches are all effective methods of increasing access to bicycles. Each bicycle represents a positive change in a resident's life.

FIGURE 6
MISSISSAUGA
GROUP RIDE



1.2 INCREASING ACCESS TO TOOLS & MATERIALS TO MAINTAIN BICYCLES

The CCP increased resident access to the necessary tools and materials to ensure bicycle functionality. Tools and materials were made available both at physical hub locations and through community outreach at local events.

The cycling hubs have indoor workspaces equipped with the tools and supplies required for mechanical training and bicycle repair. They offer low-cost repairs and training. Each of the bicycle programs offered on site bicycle repairs and maintenance at their hub locations. Hours of operation varied widely over the years due to public health considerations.

Access to repairs and maintenance is a necessary and underappreciated part of cycling. In areas with low cycling rates, access to repairs is frequently limited or requires an automobile to access. Each bike repair is an opportunity to share knowledge about how residents can repair their own bicycles.

The hubs also offered outreach to the community by providing basic repair services at community events. For example, in 2021 the Brampton site provided 120 hours of event-

based services to 2348 residents. They attended 46 events across Brampton and Caledon at 17 different locations. They estimate that they installed over a thousand bells/lights and provided mechanical evaluation and tune-ups for over 1850 bicycles. All equipment was transported to the events using donated cargo bikes.



FIGURE 7 ABOVE MISSISSAUGA POP-UP, RIGHT- HAULING EQUIPMENT IN BRAMPTON

Table 2 itemizes the increased access to tools and materials (other than bicycles).

TABLE 2 ACCESS TO TOOLS AND MATERIALS

Data	Mississauga Cycles			Total	Brampton and Caledon Bike Hubs					Total	Region of Peel
	2019	2020	2021	2019 to 2021	2015	2018	2019	2020	2021	2015 to 2021	2015 to 2021
Bike Repair & Training (# people)	132	260	532	924	35	457	1282	673	3240	5687	6611
Outreach events (#)	23	26	26	75	10	45	25	48	71	199	274

- Bike Repair Training: An instructor educates people on how to repair a bicycle (ranging from basic maintenance to a full overhaul). This category counts the number of people that received training. Includes virtual training.
- Outreach events: Events that included or focused on bike repair and maintenance including indoor training, outdoor community pop-ups and online mechanical training.

1.3 INCREASING CYCLING FREQUENCY

The CCP focuses on two types of cycling: recreational riding where the primary goals are fun exercise and socializing and transportation cycling where the primary goal is reaching destinations. Evidence is increasingly showing a strong relationship between higher levels of recreational cycling and increased transportation cycling (Boyer, 2018).

“They made me feel happy and learn a new way to transport”

Mississauga Participant 2021

“Mississauga Cycles is an excellent program that made me pick up my bike which was stored in my garage for many years. I'm now very enjoyed to utilizing bike to travel or commute if time and weather permitting.”

Mississauga Participant 2021

“I was in Pedalwise in 2015. Peter was my mentor. Now I bike everywhere that is 20 minutes or less away”

Brampton Participant 2019

“R is a protégé with mental challenges... able to secure full-time employment with help from Brampton Community Living. The Pedalwise program has given R the skills and confidence she needed to be able to commute the 7km from home to work by bicycle each day.”

Brampton Final Report 2019

FIGURE 8 GROUP RIDE REST BREAK MISSISSAUGA



Transportation Cycling

Mentorship entry and exit surveys showed consistent increases in cycling behaviour. Many of the increased cycling trips came from walking trips and some came from motor vehicle trips. Many, but not all, of these motor vehicle trips were 'getting a ride' rather than 'driving' trips. Both these factors suggest cycling is first meeting the needs of people dependent on others for motorized transport. Independent mobility is an important social and economic benefit of cycling. In 2020, Mississauga reported that half of all cycling trips were to reach everyday destinations, with women more likely to be cycling to a destination, and men more likely to bike for fun and exercise. After completing the mentorship program, Mississauga Cycles 2020 respondents also reported they were more likely to let their children ride to school. Those who strongly agreed that they would let their children ride to school moved from 7% of respondents at program entry to 41% of respondents at program exit. Mobility improvements are related to better social, economic and health outcomes (Lucas, 2012; Martens 2013; Toronto Public Health, 2012).

Cycling is a vast mobility improvement over walking as the area that can be reached easily by cycling is more than ten times greater than the areas accessible by walking (Woodcock et al, 2007).

TABLE 3 TRANSPORTATION MODE SHARE

Mode	Mississauga			Brampton				
	2019 ¹	2020 ²	2021 ³	2015 ⁴	2018 ⁵	2019 ⁶	2020 ⁷	2021 ⁸
Bicycle mode share entry	4%	20%	12%	5%	0%	0%	Not collected	37%
Bicycle mode share exit	15%	30%	26%	25%	36%	39%	Not collected	35%
Walk mode share entry	29%	31%	34%	21%	11%	20%	Not collected	20%
Walk mode share exit	24%	25%	26%	15%	13%	11%	Not collected	26%
Transit mode share entry	30%	5%	3%	20%	8%	6%	Not collected	0%
Transit mode share exit	25%	5%	3%	18%	2%	6%	Not collected	3%
Motor vehicle mode share entry	37%	44%	50%	54%	70%	58%	Not collected	43%
Motor vehicle mode share exit	35%	40%	42%	42%	49%	42%	Not collected	36%
Other mode share entry	1%	0%	1%	0%	11%	16%	Not collected	0%
Other mode share exit	0%	0%	3%	0%	0%	2%	Not collected	0%

With a focus on program delivery, not all participants completed the entry and exit surveys. The mode share change is based on the participants who filled out both.

1. Mississauga Cycles 2019: 32 participants, 17 matched surveys.
2. Mississauga Cycles 2020: 32 participants, 32 matched surveys.
3. Mississauga Cycles 2021: 32 participants, 31 matched surveys.
4. Brampton Hub 2015: 26 participants, 26 matched surveys.
5. Brampton Hub 2018: 46 participants, 9 matched surveys.
6. Brampton/Caledon Hub 2019: 55 total participants (37 new participants, 18 multi-year participants). 8 matched surveys.

7. Brampton/Caledon Hub 2020: 146 total participants (59 new participants, 87 multi-year participants). 60 completed surveys. In 2020, mode share data was not collected. The start of the Covid-19 Pandemic affected recruitment, participation, and mentorship survey submissions.
8. Brampton/Caledon Hub 2021: 78 total participants (47 new participants, 31 multi-year participants). 16 matched surveys. Entry mode share is higher, as it combined the mode share of multi-year participants who had previously increased their cycling mode share because of the program with completely new participants. Exit data was unexpectedly delayed and collected in winter. This negatively affected bicycle mode share as bicycle mode share regularly declines in winter. However, bicycle mode share in winter remained high.

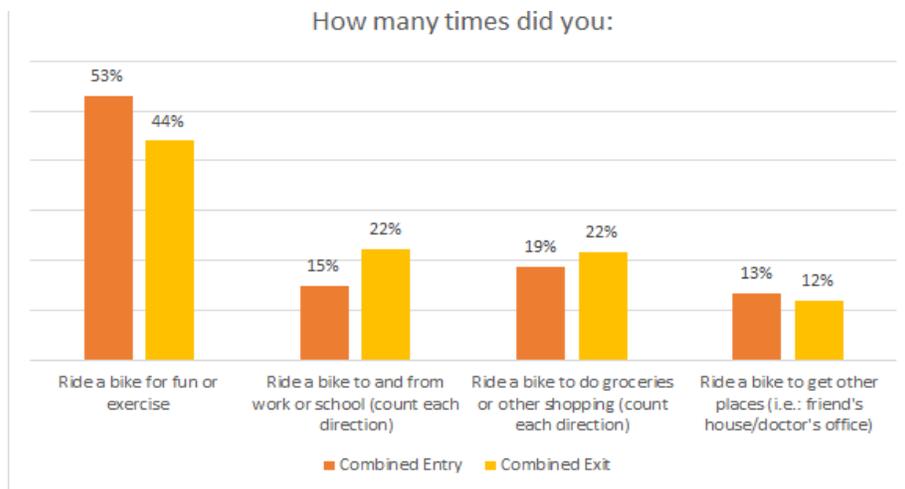
Recreational Cycling

“J started the program feeling very uncomfortable riding on Brampton’s roads. He was primarily a recreational cyclist. His goal was to improve his skills so he could participate in a charity cycling relay from Toronto to Las Vegas. Last fall he did just that, completing over 694 km in 8 days. He is now using his bike regularly to commute to work and for errands and is regularly riding in the colder weather. J has become so proficient that he is now a Pedalwise mentor.”

Brampton Final Report 2019

Recreational cycling trips also increased through program participation. In 2021, participants in Mississauga Cycles moved from **1.33 recreation trips** per week at program entry to **2.82 recreation trips** per week at program exit. At the same time, cycling for fun and exercise accounted for a smaller percentage of bicycle trips as cycling to work, school or errands increased more significantly. This same pattern was evident in Mississauga in 2021. This is instructive for transportation planning as evidence strongly suggests increased recreational cycling frequency leads to increased transportation cycling.

FIGURE 9 REASONS FOR CYCLING 2021



2021 Mississauga and Brampton Survey entry n=87, exit n=63

2. OBJECTIVE 2: INCREASING SKILLS AND KNOWLEDGE

Biking for everyday needs requires many skills other than knowing how to ride a bike. Suburban cycling routes can be challenging as they are not direct and dedicated bike

infrastructure that links to destinations is uncommon. Building knowledge of safe routes and a wide variety of types of roads and cycling infrastructure increases confidence. Cycling to work, school and shopping requires knowledge of appropriate everyday clothing and methods of carrying items on a bicycle.

The CCP builds familiarity with these aspects of cycling through workshops, group rides and mentorship.

2.1 BUILDING FAMILIARITY, CONFIDENCE, AND COMFORT WITH USING EXISTING ROADS AND TRAILS

“This was our first-time biking experience in Canada, and we were super excited as a family to begin our biking journey this summer when we received our bikes. Almost every day we used them to drive to a park some 3km from our home. Passing through small trails it was really great fun to enjoy as a family.

Mississauga Participant 2020

“It has encouraged and made me a more confident rider when riding on the road and to destination.”

Brampton Participant 2021

“The bike programs have encouraged me to do more biking and educated me on more bike paths and trails”

Brampton Participant 2021

Bicycle routes are different than those taken by drivers, transit users and walkers. Bicycle paths, quiet side streets and roads with bicycles lanes are preferred by cyclists as they offer protection from fast moving traffic. Respondent feedback and program evaluation over years and across locations consistently found program related increases in residents' confidence and comfort using the existing roads and trails. At program exit, respondents, even mentors who are experienced local cyclists, consistently showed increased familiarity, confidence and comfort using the existing roads and trails compared to program entrance. After program participation in 2020, 50% of Brampton participants felt they knew about safe bike routes in their community. Table 4 details the increase in knowledge of suitable bike routes in the Region.

TABLE 4 KNOWLEDGE OF BIKE ROUTES

I know the bike routes in my community	% Change in Agree/Strongly Agree between entrance and exit
Mississauga Cycles and Brampton/Caledon Hubs 2021 ¹	27%
Mississauga Cycles 2020	79%

¹. N=97 ². N=32

FIGURE 10 MISSISSAUGA TRAIL RIDE



Most participants had a solid grasp of the rules of the road at program entry. Nevertheless, there was a measurable increase in knowledge among program participants. As expected, mentors, who join the program expected to be confident and experienced cyclists showed no change in this area.

TABLE 5 RULES OF THE ROAD

I know the rules of the road for riding my bike	% Change in Agree/Strongly Agree between entrance and exit
Mississauga Cycles and Brampton/Caledon Hubs 2021 ¹	13%
Mississauga Cycles 2020 Mentor ²	0%
Mississauga Cycles 2020 Mentee ³	7%

¹. N=97 ². N=20 ³. N=32

Busy roads are challenging for cyclists even when they have bike lanes. In 2021, the program increased the confidence of participants to ride on busy roads with bike lanes by 29 percentage points which translates into a striking 48% increase over the base of 61% at entry.

TABLE 6 RIDING ON BUSY ROADS WITH BIKE LANE

I feel confident riding a bike on a busy road with a bike lane	% Change in Agree/Strongly Agree between entrance and exit
Mississauga Cycles and Brampton/Caledon Hubs 2021 ¹	48%
Mississauga Cycles 2020	18%

¹. N=97 ². N=32

When busy roads don't have bike lanes, experience alone does not appear to increase confidence. Consistently smaller increases in confidence were found in riding on busy roads *without* bike lanes. In 2021, the program resulted in a small increase in confidence (from 47% to 52%) in riding on busy roads without bike lanes. Given the large increase in confidence participants reported on roads with bike lanes this result speaks to residents' ongoing concerns about safety and speed. Since the Region has many high-speed multi-lane arterials that often make finding safe cycling routes to destinations a challenge, this barrier is an important area to be addressed. Program participants regularly reported they wanted improved cycling infrastructure and safe cycling facilities.

FIGURE 11 LIVING ARTS DRIVE (MISSISSAUGA CYCLES)



Program participants regularly reported they wanted improved cycling infrastructure and safe cycling facilities.

In 2021, 63% of program respondents from across the Region indicated that more and safer bike infrastructure would help them bike more.

2.2 INCREASING BASIC BICYCLE MAINTENANCE SKILLS

“Riding my bike this summer saved me over a hundred dollars in gas, improved my health, and sense of community. I also feel more competent in fixing my bike.”

Brampton participant, 2021

“I like the informal atmosphere of the hub, being able to drop in when I can without minimum attendance requirements or anything like that. I like the instruction on bike repairs and learned a lot from the instructors and even other participants.”

Brampton participant 2020

“E has continuously and quietly worked on both her riding and bike repair skills. She is not afraid to get her hands dirty and is now proficient at changing flats, adjusting brakes and maintaining the drive train. When E and her husband go on trips to Europe, instead of renting a car, they temporarily purchase bikes locally and travel to many places by either bike or bus.”

Brampton Final Report 2019

The do-it-yourself bike repair and training has been a popular and successful part of the CCP. Every year sees large increases in the number of residents participating in this aspect of the CCP. It is particularly important in Brampton where there is only one local

bike shop. Bicycle maintenance is a necessary part of riding for both recreation and transportation. But for many people the skills and tools are unfamiliar and intimidating. The drop-in bicycle hubs provide excellent opportunities for residents to both learn and share their own knowledge. Permanent physical locations are important aspects of successful community bike programs. Consistent hours allow residents to know when the services are available and plan accordingly.

Due to limited resources and public health measures in 2020 and 2021 the indoor bicycle repair spaces could not be used to their potential. However, the hubs pivoted and increased their outdoor outreach at community events. This proved to be very popular with residents.



TABLE 7 DIY BIKE REPAIR & TRAINING (HUBS & COMMUNITY EVENTS)

	Mississauga Cycles			Brampton and Caledon Bike Hubs				
	2019	2020	2021	2015	2018	2019	2020	2021
# Of residents served	132	260	532	35	457	1282	361	3240

A generous donation by Grupo Bimbo allowed the Brampton hub to service all its 2021 community outreach events using cargo trailers to haul tents, tools, and supplies. These Ontario-made trailers were used by a group of four summer students who hauled equipment rain or shine to events across Brampton and Caledon. Other volunteers provided overnight storage for the cargo and trailers at 'haul houses' so that multi-day events could be serviced. The distances in the Region can be long and creative efforts like this enable the CCP to reach more residents and in a climate friendly way. Cargo trailers and bikes are highly visible when used in the community and help people to truly understand the transportation potential bicycles offer.

2.3 GROUP RIDES

"I loved everything about it. I met so many wonderful people, I enjoyed the group rides, the camaraderie and riding the trails."

Brampton Participant 2020

"[I]Met people who invited me to ride with them. I have ridden longer distances and in colder weather than I ever thought I would ever want to! Discovered parts of Brampton I've never visited before even though I've lived here my whole life"

Brampton Participant 2020

"Program helped my get in shape by having fun. October challenge was amazing it motivated me to ride more. Posting kms on the board was brilliant idea. Group rides are amazing, keep that up."

Brampton Participant 2020

Group rides serve multiple program objectives including:

- Building familiarity, confidence, and comfort with using existing roads and trails
- Building a community of cycling
- Making cycling to nearby destinations a social norm.
- Increasing physical activity

The CCP has two kinds of group rides. The first are small group rides undertaken in mentorship programs with a volunteer mentor lead and participants who are matched for the season. Small group rides with mentor/mentees better reflected the experience a mentee would have riding on their own in a neighborhood. They can be (and often are)

tailored to mentee needs such as cycling a route they might want to take to work or to school or to purchase something. These rides, when COVID 19 was not an issue, occurred regularly over the season, often as frequently as once a week per mentor. These numbers were not consistently tracked, particularly during COVID 19, and so the data is likely under-reported. The rides pre-COVID often ended at a coffee shop or ice cream store where a bit of socializing and sharing took place. COVID 19 made regular meetups like this less frequent as both mentors and mentees were often uncomfortable being in close proximity for long periods.

FIGURE 13 SUPPORTING LOCAL BUSINESS ON SMALL GROUP RIDES



The second type of group rides are larger both in terms of participants and distance travelled. They focus more on enjoying the ride than reaching a destination. Sometimes hundreds of residents participate in these group rides which helps connect participants to the larger cycling community. For example, multiple mentors and their groups might get together to take part in larger rides like Bike the Creek and the Tour de Mississauga.

Community-led group rides have become very popular. Both the Cities of Brampton and Mississauga organize regular community rides. These rides were entirely cancelled in 2020. In 2021, some rides took place virtually, with routes marked out, and individuals encouraged to ride when convenient for them. In 2022 these rides have resumed with strong participation and other cycling groups within the Region are now also offering opportunities to ride socially. For example, throughout Mississauga communities are now holding Slow Rolls (short 5km and 10km rides for all ages and abilities) on a weekly basis.

FIGURE 14 SLOW ROLL COOKSVILLE



2.4 INCREASING PHYSICAL ACTIVITY

“I have started to love biking, as it makes me physically fit and my lower body more strong.”

Brampton Participant 2021

“It allows me to improve my health and gave me the chance to go with my family for biking almost every day during the summer.”

Mississauga Participant 2021

In 2021, there was a strong 63% increase in physical activity between program entry and exit. On average, participants increased their activity from 5.92 hours per person per week to 9.69 hours per person per week. Not every year showed that program participants reported an increase in physical activity overall, such as Mississauga Cycles in 2020, despite an increase in

In 2021, there was a 63% increase in average hours of physical activity from CCP mentorship program entry to CCP mentorship program exit.

cycling trips. Overall, although the program increased cycling, over the multiple program years there's not a strong indication to date that increased cycling resulted in broader increased overall physical activity. Perhaps this was due to decreased overall activity during the pandemic lockdowns, but more data is needed to determine why the program has had limited success in increasing physical activity more broadly.

FIGURE 15 GROUP RIDE DURING COVID19



"Highly impactful program. It motivates you to bike, build connections, stay healthy and know your community." Mississauga participant 2021

"We learnt the skill our family need to ride the bike safely and efficiently. Found the love of biking with our kids and they are doing 10 to 15kms in a day without getting much tired or boredom which is remarkable. Bikes are going to be our family members going forward and we will explore all the trails around our neighborhood." Mississauga participant, 2021

3. OBJECTIVE 3: INCREASING COMMUNITY

The social aspect of cycling is often underestimated. To increase cycling it is necessary to create a sense of community around cycling. This helps makes cycling a social norm.

Cycling with others builds community and enables socializing, while a cycling community increases cycling as the more people who an individual knows who cycle the more likely they are to cycle (De Geus et al, 2008; Ledsham et al, 2022).

Having multiple hubs also increases community. The bike hubs support each other with advice, sharing of resources and brainstorming best practices and ideas. The hub managers lean on each other's expertise to address similar challenges. This knowledge sharing was vital during start-up, during the pandemic and for ongoing problem solving and resource optimization.

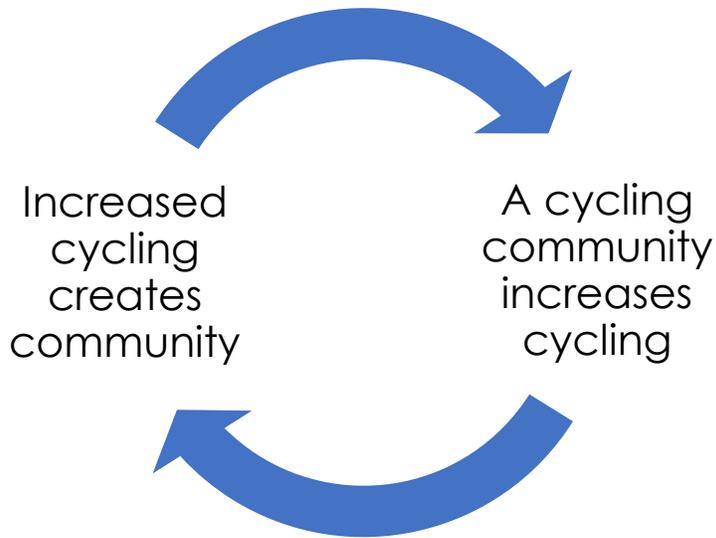


FIGURE 16 COMMUNITY & CYCLING

There are multiple avenues to creating community around cycling and the CCP uses many of them including:

- Outreach at community events
- Social media
- Opportunities for volunteering
- Partnerships with other organizations whose goals align with the benefits of cycling.

3.1 BUILD A COMMUNITY AROUND CYCLING

Normalizing cycling requires people knowing other people who cycle. This is a fundamental aspect of behaviour and behaviour change. The CCP has engaged thousands of Peel Region residents with their services. Despite pandemic challenges, each year of the CCP shows greater numbers of residents served in person, greater numbers of outreach events, greater numbers of volunteer hours and greater numbers of organizational partners. Each of these enables a growing number of connections among residents and acts to build a community around cycling.

TABLE 8 COMMUNITY ENGAGEMENT METRICS

	Mississauga			Brampton				
	2019	2020	2021	2015	2018	2019	2020	2021
Volunteer hours (#) ¹	687	684	824	1600	1550	1600	711	3285
Volunteers (# including mentors) ²	29	26	35	239	25	23	28	276
Organization partners (#) ³	3	9	13	4	4	3	21	44
Residents directly served (#) ⁴	385	562	786	239	700	3381	2348	3682
Outreach events (# clinics, workshops etc.) ⁵	23	26	44	10	46	50	46	71

1. *Volunteer Hours*: number of hours volunteers contributed to the programs, includes mentors and volunteers that worked at outreach events
2. *Volunteers*: the number of volunteers involved
3. *Organizations involved*: the number of organizations or groups that expanded the impact of local CCP programs by providing in-kind support including space, materials, volunteers, access to interested participants and relevant expertise.
4. *Residents directly served*: the number of residents who interacted with the program at a community event (includes virtual events)
5. *Outreach events*: includes bike repair clinics as well as events and workshops on other topics including wayfinding, riding a bicycle safely, or encouraging cycling. Includes virtual events. Also includes school assembly presentations. Does not include rides between mentors and participants (likely in the 100s) nor community-wide rides that participants may have attended.

In a testament to the impact of the program on community, residents spoke very highly of the community building aspects of the project. Residents found friends, discovered valuable facets of the Region, and became committed to volunteering in the community. This happened despite the ongoing impacts of the pandemic and the associated shutdown of many in-person events. In Brampton/Caledon, outreach to youth resulted in a massive increase in volunteer numbers, and young people now represent more than half of their consistent volunteers. Youth are especially interested in learning bike mechanic skills, knowledge that they will use and share their entire lives.

“I learned more about Mississauga local attractions (Museums, Salmon run, Nature Conservation Areas), I made new friends, and felt more at home.”

Mississauga Participant 2021

“Finally found the perfect opportunity to volunteer in the cycling community”

Mississauga Participant 2021

“It encourage(d) me to volunteer more to help my community people”

Brampton Participant 2021

“Our Mentor gave us a lifetime experience of staying healthy & building up friendly community.”

Mississauga Participant 2021

“I felt more connected to my community and to the area I am living in.”

Mississauga Participant 2021

“With this program I got to know about my city and my community. I can associate myself to the biking community. It gives me immense pleasure to bike in groups and with my mentor. I will always be riding with the groups”

Mississauga Participant 2021

“I especially appreciated the WhatsApp group because it made me feel part of a real cycling community. I enjoyed seeing people share their biking stories, photos and trail discoveries. Such a wonderful way for families to become familiar with our city.”

Mississauga Participant 2020

“I felt more connected to my community and to the area I am living in besides, I am now more confident in cycling out on roads.”

Mississauga Participant 2021

Community organizations also found value in the CCP and frequently partnered either formally or informally with the hubs. Partners are organizations or groups that expanded the impact of local CCP programs by providing in-kind support including space, materials, volunteers, access to interested participants and relevant expertise. Each CCP project considers the organizations running the other CCPs in the Region of Peel as additional community partners.

Over 60 community organizations found the CCP valuable enough to partner with either formally or informally (Appendix C). Cycling touches on many aspects of community life served by governments and NGOs. Having a community bike hub program in the Region allows those organizations to leverage cycling and cycling education for their needs.

Social media was used to promote the program and build community. During the pandemic these tools were particularly important in keeping people engaged in the cycling community.

TABLE 9 SOCIAL MEDIA ENGAGEMENT

	Mississauga Cycles		Brampton and Caledon Bike Hubs	
	2020	2021	2020	2021
Promotional Videos (Views)			69	440
Instagram followers	217	544	274	475
Instagram posts	38	86	24	25
Instagram stories	303	575	-	0
Instagram impressions	9K+	40,020	1,351	1,965
Twitter followers	81 (new)	66	1,135	1,188
Twitter Tweets	210	193	28	54
Twitter Mentions	86	111	-	285
Twitter Impressions	100K+	154,382	12,057	36,034
Facebook followers			520	726
Facebook reaches			7,301	124,971
Facebook engagements			558	4780
Blog Posts		3	20	14
Newsletters published		10	12	12
Email marketing (# people list)	1256	2967	-	-

3.2 MAKE CYCLING TO NEARBY DESTINATIONS A SOCIAL NORM.

Making cycling to nearby destinations a social norm is a large culture change for Region of Peel residents and is an important part of increasing the cycling community. Because of the dominance of the automobile in the Region of Peel, many residents are accustomed to jumping in a car for even very short trips. Since the mode share for walking and cycling is currently quite low, they don't often see fellow residents walking and cycling to destinations. As a result, for many people, it doesn't seem enticing or possible to walk and cycle. Cyclists and walkers take less public space than cars and trucks and even when numbers are quite large, their visual impact is quite low. In areas like Peel with wide right of ways, cyclists and pedestrians can look vulnerable and out-of-place. People need help to reduce dependence and overcome the culture of cars.

“The willingness to the volunteers to help is inspiring. When I initially started the program, I was nervous to ride on public roads. I am so grateful to this amazing opportunity that empowered me to finally be able to use a bike for transportation purposes (errands, shopping, going to work when not in a hurry).”

Brampton participant 2020

“Met new friends and had a great time riding with group, riding to the stores to do pick up is great experience as well.”

Mississauga participant, 2021

“I'm now very enjoyed to utilizing bike to travel or commute if time and weather permitting.”

Mississauga participant, 2021

“Now I've been able to ride the bike in longer distances and it opened my mind to see the bike as a means of transport.”

Mississauga participant, 2021

The changes in the mode share of program participants (Table 4) provides evidence that the program is effective in helping to establish cycling for transportation as a social norm in the Region. This objective is challenging, but the CCP acts as an incubator of new transportation behaviours among residents. Diligently tending this flame long term will lead to bigger changes in transport patterns among residents. Growth can be exponential.

The Mississauga program measured parental confidence in allowing children to bicycle to school in 2020. After completing the mentorship program in 2020, Mississauga respondents reported they were more likely to let their children ride to school. Those who strongly agreed that they would let their children ride to school moved from 7% of respondents at program entry to 41% of respondents at program exit. This is a substantial and important change as the primary reason students do not use active transport to school is parental concern about safety (Henne et al 2014).

CONCLUSIONS & RECOMMENDATIONS

The Region of Peel's innovative work building cycling participation in a suburban context has been replicated and expanded in Scarborough, Markham, and Newmarket. Overall, the evidence reviewed strongly supports the conclusion that the CCP has been successful in addressing the three primary program objectives.

- Increasing Access to cycling
- Increasing Skills and knowledge about cycling
- Increasing Community around cycling

There have been unanticipated challenges over the past two years, yet the program has steadily grown its engagement with residents and organizational partners while increasing cycling participation among program participants. The CCP has addressed many of the Region's Strategic Plan goals, including building a community:

- that is environmentally friendly
- that promotes mobility, walkability, and various modes of transportation
- that embraces diversity and inclusion
- that promotes economic sustainability and future investments in Peel
- where growth is well-managed
- where the built environment promotes healthy living

All three key informants were enthusiastic supporters of the program. This is reflected both in their comments and in their actions.

Overall, based on the information reviewed for this summary, it is recommended that the program be stabilized, locking in gains, and using the established programming and resident base to expand the program and build cycling participation in Mississauga, Brampton, and Caledon. This will enable more residents from a wider variety of locations and backgrounds to benefit from the program.

RECOMMENDATIONS can be consolidated into five areas:

1. Stabilize Long-Term Funding
2. Audience Expansion
3. Staffing Stabilization
4. Physical Space
5. Bicycles

1. *Review Opportunities for Stable Long-Term Funding*

The current contracts to deliver the CCP in Mississauga and Brampton/Caledon on behalf of the Region of Peel extend to early 2023. The contract to deliver the CCP at Sheridan College expired in 2022. The CCP is well regarded both by residents and the wider active transportation community where the program has

been replicated. Recommend reviewing opportunities for long-term funding to support project continuance.

Recommendation: review opportunities for long-term funding.

2. *Audience expansion*

Key informants suggested some new directions for the CCP. In Mississauga, the community partner (PMC) and thus CCP programming are oriented to newcomers to the country. This is a very successful program for newcomers, as it helps give them language speaking opportunities, increased social contacts, transportation options, health and fitness and knowledge of the community. The community outreach initiated in 2020 and 2021 due to pandemic related closures of indoor spaces at the partner agency resulted in contact with a wider range of residents who are not newcomers but are very interested in cycling and cycling programming. These residents are not currently serviced by the CCP in Mississauga in the same fulsome manner as newcomers.

Recommendation: expand Mississauga's CCP programming with additional official partners who will reach more established residents.

Originally, the Caledon Hub was open at two locations on a weekly basis in the communities of Bolton and Southfields. However, uptake was limited for the mentorship program despite extensive efforts. Starting during the pandemic, the program shifted to pop-ups in targeted Caledon locations. However, program uptake remained low.

Recommendation: There is not enough community interest to warrant a separate space/community organization in Caledon. Since the same organization is running the Brampton Bike Hub and Caledon Bike Hub, focusing on increasing interest in Caledon may be detracting from what can be further accomplished in Brampton for the same effort. Perhaps continue to operate in Southfields, which sits right at the Brampton/Caledon border, but discontinue further operations in Caledon to focus on activities in Brampton.

2021 saw a large increase in youth interest in the hubs and their volunteer work enabled the hubs to deliver more programming across a wider geography. Youth involvement in programs and volunteering provide a long-term benefit. Active lifestyles adopted in youth often remain in place throughout a lifetime.

Recommendation: Expanded focus on youth recruitment. Provide volunteer hours to students for participation and volunteering. Work to develop stronger partnerships with high schools and post-secondary institutions. Increase staffing levels to support this work.

The Region could support CCP audience expansion by using its large digital footprint to reach more residents. Many departments have interest in the CCP and highlighting the CCP across multiple areas would build profile and ensure residents interested in cycling know about the resources available.

Recommendation: increase the audience and profile of the CCP by promoting the program on Region of Peel websites and social media accounts.

3. Staffing

There is one manager for the Mississauga location and one for the Brampton/Caledon location. This encompasses the full-time staff for CCP, and both are contract-based employees. Each manager wears many hats. They are responsible for program delivery, partnership building, volunteer recruitment, training and organization, social media outreach, marketing materials, and the organization and often transport of equipment throughout the region. The hub managers' experience is very situational and relational. Loss of this knowledge base would set the future development of the program back. The CCP is building knowledge through this program and is expanding on a small available base of suburban cycling expertise. As other communities expand their programs knowledgeable and well-trained staff are desirable employees.

In 2021, an Advance Brampton Fund Amplifier Grant enabled Brampton/Caledon to hire 4 part-time summer students enabling the Brampton/Caledon hub to deliver 3 times as much programming and outreach as the Mississauga hub (Table 3). Increased staff funding for both locations would allow more consistent operational hours at the hubs as well as increased mobile events. This is important to develop the hubs as a community service for do-it-yourself repairs and training. This service is especially important to youth who gain marketable skills.

The program is reliant on partnerships for access to participants, space, and organizational support, as well as promotion. Partnerships require ongoing nurturing by managers to maximize and grow the benefits of the relationship. This requires staff time.

Recommendation: Staff a publicly facing hub location for both Mississauga and Brampton a few hours a day, 4 or 5 days a week during peak riding seasons. This would increase demand for services as reliable and convenient access to repairs is an essential part of using a bicycle for transportation. This could be achieved through funding of a seasonal (April through Oct) assistant for each hub site. This would require funding for approximately 1200 more skilled hours at each location. In combination with a more permanent staffing structure for hub managers, this would help stabilize the human resources for the program, increase training time available for volunteers, and ensure knowledge continuity and program and

partnership sustainability. This base will also enable efficient program expansion to additional satellite hubs as needed.

4. *Physical space*

The Region's population is currently quite dispersed, so delivering programming to a variety of neighbourhoods is essential but challenging. Over the last two years access to bicycles and bicycle repairs became an extremely valuable part of the CCP. New partnerships with Peel Community Recycling Centres have provided a source of bicycles that need repair to be diverted from waste and released back into the community as usable bicycles. It requires space to store, repair and repurpose bicycles. Currently Mississauga is using a stairwell and computer lab to store bicycles. This is only possible because of COVID closures. New spaces will be needed. Bicycle repair services are best offered in storefront/community locations so residents can see that the services are available. Storage space for bicycles awaiting repair needs to be nearby. Current locations are not visible to the public. Brampton used volunteers' homes to store equipment close to program delivery sites during 2021. These 'haul houses' allowed the hub to service events across the Region. However, this is a big ask of volunteers and not a permanent solution. The Brampton Bike Hub is currently working with the City of Brampton on a public facing space in the downtown. This solution will exponentially grow residents' access to the CCP but will not address program delivery across the city.

Recommendation: Expand official program space to support public facing hub locations and nearby storage. One possibility is Sheridan College's Hazel McCallion campus in City Centre Mississauga, where Mississauga Cycles has partnered in the past—explore co-staffing the site and expanding the partnership. Supportive cycling communities often place cycling repair facilities and hubs within transit hubs as there is frequently underused space in these facilities. Future planning could consider placing bicycle parking and repair hubs within a suitable selection of Major Transit Station Areas. These are high-profile locations and help build last-mile participation in cycling. Another possibility is the use of either repurposed school portables or shipping containers. This low-cost solution has been successfully used in Markham and Scarborough and would allow the hub to store equipment needed for program delivery in multiple neighbourhoods.

5. *Increase bicycle access*

During the pandemic, access to working bicycles and repairs was the most valued part of the program for many residents. Limits on borrowing time for bicycles had to be placed on the Brampton library to ensure access. Theft was a problem for the first time as shortages made the bicycles more valuable. Mississauga lacks space to run an ongoing bicycle library but if space and bicycles were available

the hub could begin to offer this service to residents other than those participating in the newcomer mentorship program.

Recommendation: Increase access to bicycles by increasing space available for bicycle repair, organization, and seasonal storage as per recommendation four. Increase hours available for training and supervising volunteers (as per recommendation two) to help repair and refurbish bicycles to be donated back into the community. Fund a dedicated fleet/library of good quality commuter bicycles to be available for residents to rent on a weekly or monthly basis. A natural location for this would be hubs located in transit stations. A bike loan program would be more appropriate for a suburban community such as Peel than a bike share service, which requires greater population density and many stations in a small geographic area to be successful. Ensuring long term growth of active transport means making the means to cycle available to all.

CONCLUSIONS

The Community Cycling Program added transportation, health and fitness, and socializing options for residents. The program was very well received by participants as seen in the multiple quotes from different participants and the positive behaviour changes evidenced in the data. The program in Brampton/Caledon benefitted from two extra years of programming experience (2015 and 2018) in comparison to Mississauga. Mississauga made an excellent start on developing the CCP especially given that they only had one year of operations before COVID19 arrived. The CCP requires consistent long-term funding and publicly accessible physical space to reach its full potential. Challenges notwithstanding, the CCP has grown substantially under very difficult circumstances. It is a ground-breaking active transportation initiative that is successfully laying the foundation of a strong cycling community. The CCP helped the Region address many of its stated policy and planning goals in relation to climate change, healthy living, managing growth, embracing diversity and inclusion, increasing environmental and economic sustainability, and sustainable transportation mode share.

REFERENCES

- Boyer, R. (2018). Recreational bicycling as a "gateway" to utility bicycling: The case of Charlotte, NC. *International Journal of Sustainable Transportation*, 12(6), 407-415.
- De Geus, B., De Bourdeaudhuij, I., Jannes, C., & Meeusen, R. (2008). Psychosocial and environmental factors associated with cycling for transport among a working population. *Health education research*, 23(4), 697-708.
- Henne, H. M., Tandon, P. S., Frank, L. D., & Saelens, B. E. (2014). Parental factors in children's active transport to school. *Public health*, 128(7), 643-646.
- Ledsham, T., Zhang, Y., Farber, S., & Hess, P. (2022). Beyond downtown: factors influencing utilitarian and recreational cycling in a low-income suburb. *International Journal of Sustainable Transportation*, 1-22.
- Lucas, K. (2012). Transport and social exclusion: Where are we now?. *Transport policy*, 20, 105- 113. <https://doi.org/10.1016/j.tranpol.2012.01.013>.
- Martens, K. (2013). Role of the Bicycle in the Limitation of Transport Poverty in the Netherlands. *Transportation Research Record: Journal of the Transportation Research Board*, (2387), 20-25. <https://doi.org/10.3141/2387-03>.
- Toronto Public Health. (2012). *Road to Health: Improving Walking and Cycling in Toronto*. Toronto ON: City of Toronto. <https://doi.org/10.4016/27539.01>.
- Woodcock, J., Banister, D., Edwards, P., & Andrew, M. Prentice, and Ian Roberts. 2007. *Energy and Transport*. *Lancet*, 370(9592), 1078-88.

APPENDIX A CCP PROGRAM TYPES & DESCRIPTIONS

Type	Mississauga			Brampton & Caledon				
	2019	2020	2021	2015	2018	2019	2020	2021
Bike Repair Training	x	x	x	x	x	x	x	x
Bike Loans/Library	x	x	x	x	x	x	x	x
Bike Refurbishment		x	x	x	x	x	x	x
Community Pop-up Booths	x	x	x	x	x	x	x	x
Cycling Challenge				x	x	x	x	x
Cycling Nutrition Seminars					x			
Cycling Skills Training incl workshops & rides			x		x	x		x
DIY Bike Hub (repairs and training)	x	x	x	x	x	x	x	x
Focus Group sessions					x	x		x
Mentorship	x	x	x	x	x	x	x	x
Newcomers on the Move		x	x					
School programming		x			x	x	x	x
Senior programming		x	x	x				x
Staff programming	x	x	x				x	x
Volunteer Training	x	x	x	x	x	x	x	x
Winter Cycling Programs			x	x	x	x		
Webinars		x	x			x	x	x

Selected Program Descriptions

Bike Repair Training: Help residents with diagnosing problems and repairing bicycles, ranging from basic maintenance to a full overhaul. Can include dedicated indoor or outdoor spaces, access to tools and parts and training and guidance. These can happen in person at Hubs, at community events and online with live zoom sessions.

Bike Loan/Bike Library: A bike lending program, where interested staff and/or program participants can access a bicycle to ride independently over a period of two to three months.

Bike Refurbishment: A team of volunteers fixed donated bicycles, which were then given to participants who had successfully completed the Cycling Mentorship program or to volunteers who helped with the refurbishment.

Community Pop-Up Booths: A booth set up in parks, schools and at farmers' markets offered free safety checks and simple tune-ups to the public, as well as information about cycling in Peel Region. These booths also served as an important way to promote other aspects of the program, such as mentorship.

Cycling Challenge a contest encouraging riding more kilometers, and in shoulder season to expand cycling season beyond summer.

Cycling Skills Training including workshop & rides: Participants joined in virtual workshops on cycling safety and other cycling skills, followed by small group rides. Workshops were provided in various languages including Mandarin, Cantonese, and Punjabi.

Mentorship: In the mentorship programs, individuals were loaned a bicycle and paired with experience cyclists. Together, they participated in independent and small group rides. Participants who did not have bikes were free to borrow one from the Bike Library. Mississauga's cycling mentorship program was solely for newcomers to Canada, while Brampton's addressed all residents and was a mix of first-time participants and returning participants.

Newcomers on the Move is a series of 8 short videos focused on helping newcomers love safely and effectively in the City of Mississauga using active transport and transit.

Senior programming are programs like skills training and rides oriented to seniors

School programming are skills programming delivered in the school system.

Staff programming is cycling programming for program partners' staff

Volunteer training is a fundamental part of the CCP as volunteers deliver much programming through mentorship and skills transfer.

Winter Cycling programming teaches the skills necessary to use your bicycle year-round.

Webinars: Virtual workshops on the topics of cycling safety, the environment, and where to ride in Peel were offered to students and the public in collaboration with community partners.

APPENDIX B SOURCES

Peel Region 2021 Community Cycling Program Evaluation Report
Prepared by the Centre for Active Transportation at the Clean Air Partnership 2022

Brampton and Caledon Bike Hub CCP Year Three Final Report
Prepared by Sonia Maset, Program Manager, Brampton and Caledon Bike Hub, 2022

Final Report Region of Peel Community Cycling Program Mississauga Cycles Project
Prepared by CultureLink Settlement and Community Services 2021

Community cycling Program Brampton Caledon, Year Two Final Report
Prepared by PCHS and Bike Brampton, 2021

Final Report Region of Peel Community Cycling Program Mississauga Cycles Project
Prepared by CultureLink Settlement and Community Services 2020

Community Cycling Program Brampton Caledon Final Report
Prepared by PCHS and Bike Brampton, 2020

Mississauga Cycles: Evaluation of 2020 Programming
Prepared by the Centre for Active Transportation at the Clean Air Partnership 2020

Peel Region Community Based Pilot Program for Active Transportation
Prepared by the Centre for Active Transportation at the Clean Air, 2016

APPENDIX C CCP COMMUNITY PARTNERS 2019-2021

Community partners are organizations or groups that expanded the impact of local CCP programs by providing in-kind support including space, materials, volunteers, access to interested participants and relevant expertise.

Mississauga Cycles Partners

- Lead organizations:
 - CultureLink Settlement Services
 - Peel Multicultural Council
- Businesses
 - Cyclepath Mississauga
 - Epic Tours @ Tour de Mississauga
 - Fresh Restaurants
 - Parkbus
- Charities, Non-profits and Volunteer-led Organizations and Committees
 - Bike Brampton
 - Clean Air Partnership
 - Meet and Greet Senior Club of Mississauga
 - Ontario Land Trust Association
 - Polycultural Immigrant and Community Services
 - Riverwood Conservancy
- Conservation Authorities
 - Credit Valley Conservation Authority
 - Toronto and Region Conservation Authority
- Educational Institutions
 - Sheridan College (Office for Sustainability)
- Farmer's Markets
 - Erin Mills Farmer Market
 - Lions Farmers Market
 - Streetsville Farmers Market
- Municipal Partnerships
 - City of Mississauga
 - Region of Peel (departments outside the Transportation Division)
 - Peel Community Recycling Centres
 - Peel Housing
 - Peel Public Health

Brampton Bike Hub and Caledon Bike Hub Partners

- Lead organizations:
 - Punjabi Community Health Services
 - Bike Brampton
- Businesses
 - Decathlon
 - Grupo Bimbo
 - MEC
 - Sport Chek
- Charities, Non-profits and Volunteer-led Organizations and Committees
 - Bramalea Springdale Network (BSN)
 - Brampton Community Network (BCN)
 - Brampton Environmental Alliance (BEA)
 - Catholic Cross-Cultural Services
 - Clean Air Partnership
 - Climate Change Youth Forum
 - CultureLink Settlement Services
 - David Suzuki Foundation
 - Girl Guides
 - Heart Beat Bikes (Youth Unlimited)
 - PCHSU4YOUTH
 - People Against Littering (P.A.L)
 - Peel Multicultural Council
- Community Bicycle Groups
 - Bike Kitchen (Vancouver)
 - Bike Sauce (Toronto)
 - B!KE (Peterborough)
 - Gateway Bike Hub (Toronto)
 - Re-Cycles (Ottawa)
 - Toronto Community Bicycle Network
- Conservation Authorities
 - Toronto and Region Conservation Authority
 - EcoSchools program
 - Bramalea SNAP
 - Credit Valley Conservation
 - Fletcher's Creek SNAP
- Educational Institutions
 - Algoma College
 - Bramalea Secondary School
 - Earnscliffe Senior Public School
 - Massey Street Public School
 - Sheridan College (Office for Sustainability)
- Municipal Partnerships
 - City of Brampton
 - Advance Brampton Fund
 - Brampton Tourism

- City Planning and Design - Integrated Downtown Plan
 - Nurturing Neighbourhoods Program
 - Transportation Planning
 - Welcoming Streets Program
- Region of Peel (departments outside the Transportation Division)
 - Peel Community Recycling Centres
 - Peel Public Health
 - Peel Volunteer Services
- Town of Caledon
- Peel Regional Police