

E-Scooter Jurisdictional Scan

Rideshare Program Policies



Literature Review
January 2021

Public Health Ontario

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How to cite this document:

Ontario Agency for Health Protection and Promotion (Public Health Ontario), Oei T, Richmond SA. E-scooter jurisdictional scan: rideshare program policies. Toronto, ON: Queen's Printer for Ontario; 2021.

ISBN: 978-1-4868-4725-9

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Background

- The province of Ontario recently passed legislation (January 1, 2020) that allows municipalities to participate in a five-year pilot, e-scooter ridesharing program.¹ E-scooters, or electronic scooters, are motorized, stand up scooters that are used both as a mode of transport and as a recreational vehicle. There are several e-scooter businesses that provide dock less e-scooters to municipalities as part of a rideshare program. E-scooter users access the vehicles through a mobile application.
- Currently, there are no summaries of evidence on the burden, mechanism and type of injuries most commonly reported from e-scooter use. There is a need for information specific to injuries, as well as recommendations for safe use of e-scooters to inform potential pilot programs and for pilot program evaluation.
- There is also a need for a summary of recommendations for use (e.g., restricted areas, permitted areas, speed limits, user restrictions, etc.) towards informing the implementation of local pilot programs from other e-scooter jurisdictions.
- Two documents have been created to support these needs. This document, titled “E-scooter jurisdictional scan: Rideshare program policies,” summarizes current municipal policies and/or recommendations for e-scooter rideshare programs (e.g., restricted areas, permitted areas, speed limits, user restrictions, etc.). The second document titled, E-scooter injuries, summarizes evidence on the burden, mechanism, and type of injuries most commonly reported in the peer-reviewed literature.

Methods

- A grey literature search was conducted in Google News and Google Canada using a standard search strategy (available on request), to identify relevant grey literature reports and articles. Examples of search terms used include "e-scooters," "electric scooters," "powered scooters," and "dockless scooters."
- Grey literature reports and articles were eligible for inclusion if they reported on recommendations/policies put forward from jurisdictions that have implemented an e-scooter program.
- One PHO staff screened titles and abstracts, and then full-text versions of all documents for inclusion. For all included reports and articles, one PHO staff member extracted relevant data and summarized content.

Findings

A number of municipal level e-scooter rideshare program policies and/or recommendations are published. A total of 450 reports and articles were screened, with 18 reports and one news article included in this briefing note. There were four reports and one news article from Canada,²⁻⁶ two reports from Australia,^{7,8} one report from New Zealand,⁹ and 11 reports from the US.¹⁰⁻²⁰ Policies and recommendations are organized in table format to facilitate comparison across jurisdictions.

Summary of Key Policies and Recommendations

A review of the recommendations and policies identified reports covering 18 jurisdictions with key policies and recommendations for e-scooter rideshare programs, including: restricted areas, permitted areas, speed limits, user restrictions, helmet use, parking requirements, and the number of e-scooters (limiting number of e-scooters in use at one time).

Restricted areas: Eleven jurisdictions recommended some form of restriction on areas for use of e-scooters. Seven jurisdictions recommended no use on sidewalks (Edmonton, Ontario, Kirkland, Georgia, Ithaca, American Academy of Pediatrics, Washington DC),^{3,5,13-15,18,19} and four jurisdictions recommended e-scooter restrictions on roadways (Adelaide, Australian Capital Territory, Kirkland, American Academy of Pediatrics).^{7,13,18}

Permitted areas: Jurisdictions that reported roadways as areas permitted for e-scooter use included Calgary, Edmonton and Ontario.^{2,3,5,6} Paths/multi-use trails, and bikeways were reported as permitted areas for use in policies/recommendation from eight jurisdictions (Ithaca, Adelaide, Australian Capital Territory, Darwin, Queensland, Kirkland, American Academy of Pediatrics, Austin).^{7,13,15,17,18}

Speed limits: The majority of jurisdictions made recommendations on setting speed limits for e-scooter use. This included limits of 10 and 15 km/hour,⁷ three jurisdictions with a limit of 20 km/hour (Calgary, Edmonton, Darwin),^{2,5,7} six for 25 km/hour (Ontario, Waterloo, Baltimore, Ithaca, Austin, Washington DC),^{3,6,11,15,17,19} two for 25 km/hour limit (Queensland, Western Australian Government)^{7,8} and one at 32 km/hour (Kirkland).¹³

User restrictions: The majority of jurisdictions (Calgary, Edmonton, Darwin, Auckland, Baltimore, Chicago, and Georgia) reported user restrictions for e-scooter use. Most jurisdictions with policies that reported user restrictions reported age requirements^{3,6-8,13,15,17,19} and/or restrictions on passengers.^{3,6,13,17,19} Other user restrictions included not carrying cargo,^{3,6} hours of use,^{3,13} riders to use both hands when operating e-scooters,^{3,18} and restrictions on alcohol and/or drug use while operating.^{6,18}

Helmet use: The majority of jurisdictions (Darwin, Chicago, Washington DC, Auckland, Australian Capital Territory, Calgary, Edmonton, Ontario) reported recommendations on helmet use. Auckland, Calgary and Edmonton specifically reported no helmet use required for e scooter programs.^{2,5,9} The Australian Capital Territory, Darwin, Chicago, Washington DC, and Ontario did not report on helmet use

specifically.^{3,7,12,19} Others, including Adelaide, Queensland, the Western Australia Government, Kirkland, Ithaca, Georgia, the American Academy of Pediatrics, and the Ontario Ministry of Transportation reported specifically on the use of helmets.^{6-8,13-15,18} Baltimore urged e-scooter rideshare programs to offer helmets as part of use,¹¹ and both Georgia and the Ontario Ministry of Transportation reported age specific helmet use (under 16 years and 18 years, respectively).^{6,14}

Parking requirements/Number of e-scooters: Seven jurisdictions reported recommendations toward parking restrictions (Edmonton, Waterloo, Auckland, Baltimore, Chicago, Kirkland, Ithaca) and eight jurisdictions recommended a number of e-scooters in use at one time (Calgary, Edmonton, Waterloo, Auckland, Chicago, Ithaca, Austin, Washington DC).^{2,3,5,9,12,15,17,19} The majority of policies reporting parking recommendations suggested rideshare programs provide e-scooter parking stalls in secure areas, deterring users from leaving the vehicles on sidewalks and areas of high pedestrian traffic.

Please see [Table 1](#) and [Table 2](#) for more information on key policies/recommendations for e-scooter rideshare programs.

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Appendix A: Key Policies and Recommendations

Table 1: Policies and/or Recommendations on the Use of E-scooter Rideshare Programs (Canada)

Jurisdiction	Restricted Areas	Permitted Areas	Speed Limits	User Restrictions	Helmet Use	Parking Requirements	Number (limit) of E-scooters
Calgary ²	Not reported	Allowed to operate on roadways, bike lanes, and pathways	Maximum speed of 20 km/h	Not reported	Not required	Parked in secure, upright position in designated areas (i.e., furniture zones of sidewalks, public bike racks, marked parking zones). Without furniture zones, users give at least 2 m clearance for accessibility	A maximum of 10,000 vehicles may operate in Calgary; An operator may only provide up to 1,000 e-scooters and 1,500 e-bikes; In the summer of 2019, there were 500 shared e-bikes and 1,500 shared e-scooters approved to operate in Calgary
Edmonton ⁵	Not permitted on sidewalks	Allowed on roads	Maximum speed of 20 km/h	Not reported	Not required	Not reported	A total of 200 Lime and 400 Bird scooters
Ontario ³ (Recommended)	Allow municipalities to set geographic limits in which e-scooters can/cannot operate	E-scooters be permitted anywhere that conventional bicycles operate, unless restricted by a municipal by-law	Limit the speed of e-scooters to 24 km/h and require an emergency power shut off switch	At least 18 years of age; Require first time users to participate in an online training tutorial via operators app; Prohibited from carrying passengers; prohibit from carrying any packages that prevent keeping two	Not reported	Specifically prohibit e-scooter riders from leaving e-scooters lying on their sides or parked in a way that does not allow adequate space for pedestrian traffic	Not reported

Jurisdiction	Restricted Areas	Permitted Areas	Speed Limits	User Restrictions	Helmet Use	Parking Requirements	Number (limit) of E-scooters
				hands on the handlebars			
Ontario – Ministry of Transport ⁶	Not permitted on sidewalks	Municipalities decide on where e-scooters can operate (i.e., bike paths, parks, trails, etc.)	Maximum speed of 24 km/h	Must be over the age of 16; Riders must be standing at all times; No passengers; No cargo; No drugs or alcohol permitted when operating an e-scooter	Persons under the age of 18 must wear a helmet	Must be parked in a municipally approved parking area; E-scooter parking locations should not block access to businesses, fire doors, or be located outside of restaurants and bars, etc.	Not reported
Waterloo ³	Not reported	Specific “pilot routes” on which the e-scooters can be operated	Maximum speed of 24 km/h	Specifies hours of operation between 7 a.m. to 9 p.m.; E-scooter riders must be 18 years of age and upload a driver’s license as proof of age	Not required	Not reported	Maximum of 100 e-scooters in Fall 2018 and a maximum of 150 e-scooters in spring 2019

Table 2: Policies and/or Recommendations on the Use of E-scooter Rideshare Programs (International)

Jurisdiction	Restricted Areas	Permitted Areas	Speed Limits	User Restrictions	Helmet Use	Parking E-scooters	# of E-scooters
Australia - Adelaide ⁷	Not permitted on multi-lane roads, or any road with a speed limit of more than 50km/h	Can only be used on footpaths or shared pathways	Maximum speed of 15 km/h	Must be over the age of 18 years	Users must wear a helmet	Not reported	Not reported
Australia - Australian Capital Territory ⁷	Not permitted on roads and road related areas Infringement notices include penalty of \$151 for using an e-scooter, \$600 for using an unregistered vehicle and \$903 for using an uninsured vehicle	Allows general footpath cycling	Speed limited to 10 km/h; no speed limit on cycling paths, other than default speed limit and required to slow down to 10 km/h when approaching and riding over crossings	Does not regulate who can use a micro-mobility vehicle (Segway-type vehicle), but relies on advice of manufacturers	Not reported	Not reported	Not reported
Australia - Darwin ⁷	Not reported	Permitted to use bikeways, shared paths and footpaths	Maximum speed of 20 km/h	Not reported	Not reported	Not reported	Not reported
Australia - Queensland ⁷	Not reported	Allowed on footpaths, shared paths, bicycle paths, roads with speed limits of 50 km/h or less and without dividing lines or median strips	Maximum speed of 25 km/h	Limits users of personal e-scooters to over 12 years of age under adult supervision, and over 16 years of age unsupervised; Users of shared e-scooters required to be +18 years	Users must wear a helmet	Not reported	Not reported

Jurisdiction	Restricted Areas	Permitted Areas	Speed Limits	User Restrictions	Helmet Use	Parking E-scooters	# of E-scooters
Australia - Western Australian Government ⁸	Not reported	Not reported	Maximum speed of 25 km/h	Must be over 16 years of age, with users between the ages of 12 and 16 requiring adult supervision	Users must wear a helmet	Not reported	Not reported
New Zealand - Auckland ⁹	Not reported	Not reported	Slow zones were implemented in areas with high pedestrian foot traffic. High use was still observed in these areas, indicating reduced speed not a deterrent to use	Not reported	Not required to wear helmets; Should not seek to implement mandatory helmet law in isolation of other safety efforts	Operators required to incentivize good parking behaviour; Created parking corrals and encourage riders to use them	Three operators with a maximum of 1,875 vehicles
USA - Baltimore ¹¹	Not reported	Not reported	City-wide 15 mph; geo-fence reduced speed (10 mph) and some no ride zones	Not reported	Rideshare program companies are encouraged to offer safety equipment (helmets, reflective gear etc.) to users	Vehicles can only be deployed on Baltimore City and must adhere to parking laws	Not reported
USA - Chicago ¹²	Not permitted downtown; or on urban trails	Incentivize trips to and from transit stops	Not reported	Not reported	Not reported	Require e-scooters to be parked in docks, painted corrals, or locked to public racks and posts	Maintain a reasonable cap; Making more scooters available per resident could exacerbate the negative impacts
USA - City of Kirkland ¹³	Cannot be ridden on sidewalks unless there is no alternative or if	Scooters may be operated most	Maximum speed of 20 mph	May not be operated from a half hour after sunset to a half hour	Users must wear a helmet	Scooters are allowed to park	Not reported

Jurisdiction	Restricted Areas	Permitted Areas	Speed Limits	User Restrictions	Helmet Use	Parking E-scooters	# of E-scooters
	authorized by local ordinance May not be used on public rights-of-way with speed limits greater than 25 miles per hour Cannot be used on trails	places bicycles are allowed		before sunrise without reflectors; No Driver's License needed; Must be at least 15 years old; No person shall transport another person on or in tow of a motorized scooter		where bikes can park	
USA - Georgia ¹⁴	Decatur, GA: prohibits e-scooter use on sidewalks and between 9 p.m. and 6 a.m. Atlanta, GA: prohibits e-scooter use on sidewalks and between 9 p.m. and 4 a.m. Cities banned/temporarily banned: Alpharetta, Marietta, Athens, Macon, Columbus, Savannah	Not reported	Not reported	Not reported	Persons under the age of 16 must wear a helmet	Not reported	Not reported
USA - Ithaca ¹⁵	Should be banned from use in pedestrian-only areas; Geo fencing will be used to establish "no ride" (0 mph) and	Allow bicycles, e-scooters, and skates on multi-use paths, unless otherwise stated	Maximum speed of 15 mph	Must be at least 18 years of age	Users must wear helmets	Acceptable parking guidelines (on sidewalks not blocking fire hydrants, ADA	Initial launch must consist of 50 or fewer e-scooters; Additional e-scooters may be introduced at a rate of 10 per day as long as the

Jurisdiction	Restricted Areas	Permitted Areas	Speed Limits	User Restrictions	Helmet Use	Parking E-scooters	# of E-scooters
	“reduced speed” (12mph) zones					access, entrances, or pedestrian right- of-way)	number of rides per scooter per day exceeds three
USA – Austin, Texas ¹⁷	Restricted the use of e-scooters to paths used exclusively for bicycles and/or pedestrians; no use within the city limits	Only operated on a road where posted speed limit is 35 miles per hour or less. May operate on bike path or a sidewalk	Maximum speed of 15 mph	At least 16 years old and have a valid driver’s license; Prohibit more than one person from riding on a single e-scooter at one time; Must always yield right-of-way to pedestrians	Not reported	Not reported	10 licensed companies, estimated 14,000 e-scooters in circulation
USA - The American Academy of Pediatrics (AAP) ¹⁸ Recommend	Do not ride e-scooters on sidewalks, beach paths, or parks; E-scooters are not allowed on highways	Use bike lanes when available; If not available, riders should stay on the right side of the road	Not reported	Children under 16 should not operate or ride e-scooters; No texting and riding; Must use both hands to operate the scooter; No earbuds can be used while operating; Cannot operate under influence of alcohol, drugs	Wear a helmet and closed-toe shoe; Must wear protective gear (elbow and kneepads and reflective gear for riding at night)	Not reported	Not reported
USA - Washington DC ¹⁹	Not permitted on sidewalks in Central Business District	Allowed on sidewalks in rest of DC area	Maximum speed of 15 mph	Cannot be driven by riders under 16 years old; Only one rider per scooter	Not reported	Not reported	Limited number of bicycles and scooters to 400 per company

The National Association of City Transportation Officials published guidelines for regulating rideshare e-scooter programs.¹⁶ There is a table in the guidelines (see pages 44 to 55) that summarizes the requirements on vehicles, fleet, data, employment, adaptive vehicle, multi-language and parking, as well as fees and discounted pricing programs across several cities in the US.¹⁶

Other E-scooter rideshare program Recommendations and/or Requirements

A review of the recommendations and policies identified other common requirements for e-scooter rideshare programs, including: permit/licensing, terms and conditions, reporting, data disclosure, fee structuring, app features/service, education, e-scooter specifications, deployment, and removal.

- **Permit/licensing:** Several policies stated a requirement for e-scooter companies to apply for a permit/license by the city (or governing body) in order to operate.^{6,8,9,19} The permit should include a code of practice with requirements for safety, vehicle caps, distribution areas, parking and behaviour, reporting, and data sharing.^{6,9} In addition, operators are required to submit plans to meet parking targets as part of their license application.^{6,9}
- **Terms and Conditions:** Some policies recommended principles, practices and obligations that an operator of an e-scooter rideshare service is required to comply with as a condition of a permit to mitigate public amenity and safety risks.^{6,8} The terms and conditions issued with a permit to an operator should hold legal standing under local laws.⁸ The terms and conditions should adhere to city data privacy and non-discrimination policies^{6,15} and customers shall not be required to share personal information with third parties and may be asked to opt in to sharing some personal information to aid in pilot program evaluation.¹⁵ Recommendations also included a thorough assessment of rideshare service applications to ensure the most appropriate service(s) is chosen with a business model that meets the needs of the local government.^{6,8}
- **Reporting:** Two policies recommended a reporting schedule that requires operators to inform the municipality of injuries and incidents and to standardize safety reporting.^{6,9} Recommendations included submitting a monthly active user count, crash reports, parking violations, damaged vehicles, and complaints with the response time noted.^{6,11} A survey of e-scooter users, as well as the general population, was recommended to determine whether e-scooters will contribute to municipalities mobility, equity, and climate action goals.¹⁵ Finally, the reporting should include notification of all makes and models of vehicles introduced.¹¹
- **Data disclosure:** Policies recommended municipalities complete an audit of the e-scooter operators' data feeds and confirm this information, prior to launch.^{6,9} The data collection should include standardized definitions and formats for data sharing, including safety, incident, and vehicle maintenance reporting.^{6,9,15} Key measures should include trips, vehicle, date and trips taken to and from public transport locations.⁹ The implementation of a data management system to ensure consistent analysis was recommended in two policies,^{6,9} as well as a recommendation to distinguish between bike and e-scooter users and privately-owned vehicles.¹⁵
- **Fee structuring:** One policy recommended developing a fee structure that covers anticipated costs for staff time and other expenses related to e-scooter rideshare programs. The appropriate fees could include application review and licensing fees, and a per scooter or per-trip fee that reflects not just the cost of renting space, but also reflects anticipated costs.⁹ Further, a portion of the province's transportation funding could be allocated to build safe and separate spaces for both bicycles and e-scooters in municipalities.³ The fee recommendation should be based on industry standards and should not be based on ad-hoc judgment of the company's worth.¹⁵ For user fines, it was recommended that a per e-scooter fine should be assessed to damaged, abandoned, and/or improperly parked e-scooters that remain in their location for 35 minutes to two hours after the e-scooter has been reported.¹⁵ This fee should then increase per e-scooter if the violation continues to exist beyond two hours.¹⁵ It was reported that the fees could be sent to a designated fund, the balance of which could be applied towards infrastructure improvements, such as defined parking areas, bike corrals, bike lanes, etc.¹⁵ One policy recommended fees and user fines as follows:

- A per ride fee should be assessed. The industry standard is \$USD 0.10 - \$USD 0.15 per ride.¹⁵
- An initial permit fee should be set. The industry standard is \$USD 500.00. - \$USD 1000.00.¹⁵
- Fines should be set. The industry standard is \$USD 25.00 for 35 minutes to 2 hours; \$USD 100 after two hours.¹⁵
- **App features/services:** Some policies require displaying riding laws in the app for new users and for riding laws to be accessible to all users at any time; companies are encouraged to have safety laws pop up on the user app more frequently.^{11,15} One policy reported e-scooter companies to provide a toll free number for residents to report poor parking of e-scooters, in addition to any in-app reporting that can be done by e-scooter riders.³ It was recommended that e-scooter companies respond to the public in six business hours and to the municipality in three business hours, maintaining a 24-hour line with multilingual service.¹¹ One policy also required e-scooter companies to address software glitches in a timely manner.¹¹
- **Education:** One policy recommended to create and maintain a city-specific website which provides user instructions, safety education, and explains terms of service, privacy policies, fees, costs, penalties, and other charges.¹⁵ The service must be provided in English and in any other languages required by the city¹⁵ and should have information pathways directed at e-scooter users, pedestrians, and motorists.¹⁵ Prior to the pilot launch, e-scooter companies should set up staffed booths at various public spaces throughout use areas and provide one-on-one rider education.^{11,15} It was recommended that the initiative should be repeated daily for a minimum of one week.¹⁵ After the pilot begins, companies should arrange for similar in-person education to occur at community events.¹⁵ E-scooter companies should track parking behaviour on a regular basis (at least annually) and set targets for improvement in the proportion of scooters parked incorrectly.^{9,11}
- **E-scooter specifications:** One policy recommended companies equip vehicles with a constant noise emitting device or develop designs to add one (for other road users to be able to hear the vehicle while in motion).¹¹ It was also recommended that all e-scooters have: GPS technology, a kick stand, a sticker or decal with a unique vehicle identifier, the company name, a toll free number and email address, as well as throttle control technology.¹¹ Finally, recommendations also included a front lamp and rear reflector,¹³ as well as a detailed vehicle maintenance plan.¹¹
- **Deployment:** For vehicle deployment, it was recommended that e-scooter companies adhere to a minimum and maximum fleet size; however, companies may apply to expand fleets based on ridership quotas.^{6,11} Some policies recommend deploying a minimum number of vehicles to designated deployment zones and redistributing vehicles if there is an over concentration within that zone, removing vehicles in severe weather or other emergency situations. It was also recommended that companies rebalance the number of vehicles at several time points on special event days.¹¹ The municipality should be able to designate new zones¹⁵ and respond to non-deployment requests within 48 hours by removing that location from the deployment list.¹¹
- **Removal:** For removal of the e-scooters, it was recommended that companies be responsible for removing all e-scooters from operation at a designated time (e.g., after 9 p.m.) and for collecting all e-scooters on public and private property (except those in designated recharging stations)³ before returning the vehicles at a given time each morning (e.g., 6 a.m. or 7 a.m.).¹⁵ It was also recommended that the e-scooter company is responsible for removing e-scooters which are damaged, abandoned, and improperly parked.¹⁵

Reported Benefits

Several policies stated benefits of participating in an e-scooter rideshare program. This included greater transportation options and convenience, as well as environmental, tourism, and economic benefits. The policies reviewed suggested e-scooters could help solve the “last mile” problem by offering an option for trips that are too long for a comfortable walk but too short for a car ride,^{4,7,12,15} as well as being an

additional mode of transportation that is convenient, affordable, and easy to use.^{2,4,7,9,12,15} One policy suggested e-scooters are particularly attractive for office workers because they do not require too much body movement that prevents perspiration and wrinkling of clothing.⁷ The same policy suggested e-scooters may also be useful for women wearing skirts and dresses, which can be an issue on bicycles.⁷

Reported Concerns

Several safety considerations were cited in rideshare program policies, including concerns for the e-scooter rider, pedestrians, and motorists.^{2,7,9,10,12,15} Reported injury rates, as well as the types of injuries commonly seen from using e-scooters are reported in a separate document. Other concerns cited were bad/inconsiderate behaviour^{2,9} from e-scooter riders, such as riding in areas that e-scooters were not allowed,¹² as well as improperly parking e-scooters in sidewalks, crosswalks, and private backyards, which causes hazardous obstructions and accessibility issues.^{2,8-10,12,15} Finally, one report noted that e-scooter rideshare programs are not a practical transportation option for people with disabilities.¹²

Equity

Several policies recommended that e-scooter rideshare programs be equitable to all citizens. For example, one policy suggested municipalities should develop an equity strategy,⁹ which should include surveys, focus groups, and public meetings to ensure engagement among underserved communities and people with disabilities.^{9,11} Several policies recommended that e-scooters are to be distributed in low income and underserved communities, not just central hot spots.^{6,11,12,15} Policies also recommended to establish an equitable cost structure, such as options for people without smartphones, credit cards, or people in low-income households (e.g., text-to-unlock, pay-in-cash, subscription based, and discounted use options).^{6,11,12,15} Finally, suggestions included offering a non-smart phone option for e-scooter access as well as options for the app to be accessible to the visually impaired (e.g., talk over and voice back options).¹¹

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