



Bus Routes For The Elderly

Organizations

Toronto Transit Commission (TTC)
 Société de Transport de Montréal (STM)
 Société de Transport de l'Outaouais (STO)
 Société de Transport de Laval (STL)
 Société de Transport de Sherbrooke (STS)
 London Transit Commission (LTC)
 Transit Windsor

Status

Projects are ongoing

Overview

Over the past few years, several Canadian transit authorities have implemented bus routes dedicated to the elderly. These new bus services are intended to meet the increasing demand for a more accessible public transit network for the elderly, which cannot be provided by traditional public transit. Rather than focusing primarily on ridership figures, these new services focus instead on increasing the quality of elderly users' experience. This is achieved by providing a more secure and comfortable transit service and establishing routes more suitable for the elderly, who are often characterized by mobility restrictions.

Resources

Toronto Transit Commission (www3.ttc.ca)
 Société de Transport de Montreal (www.stm.info)
 Société de Transport de l'Outaouais (www.sto.ca)
 Société de Transport de Laval (www.stl.laval.qc.ca)
 Société de Transport de Sherbrooke: (www.sts.qc.ca)
 London Transit Commission (www.ltconline.ca)
 Transit Windsor (transit-windsor.com)

Introduction

In most developed countries, the number of elderly people is increasing faster than any other age group; Canada is no exception. It is widely accepted that public policy must take into account the increasing demographic weight of the elderly in the Canadian population; this includes transportation policy. Communities across Canada must anticipate future increases in the demand for transportation services for people with reduced mobility and special needs by implementing new services dedicated to clientele such as the elderly.

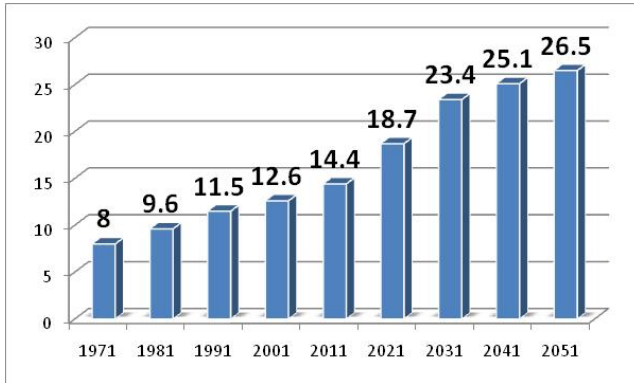
It is unlikely that future demand for accessible public transportation can be met with the type of on-demand "para-transit" that many Canadian cities have been offering over the last few decades, as costs would be prohibitive and ridership levels would not be high enough to justify this type of service. One solution to meeting the mobility needs of seniors is through dedicated scheduled bus services. Running such a service entails having vehicles that are adapted for easier boarding, as well as comfortable and safe riding for people with reduced mobility. It also entails designing appropriate routes and schedules – elderly users are liable to travel between different origins and destinations and different times than users in the active workforce, for whom most transit systems are optimized.

This issue paper examines and compares initiatives to provide scheduled bus services adapted to the needs of the elderly in several Ontario and Quebec cities. The Ontario cities include Toronto, London, and Windsor. The Quebec cities include Montreal, Gatineau, Laval, and Sherbrooke.

Demographic Context

In 2003, there were 4.6 million Canadians over the age of 65. By 2028, that number is expected to double. By 2041, it is expected that every fourth Canadian will be 65 or over (HRSDC, 2009). The trend is illustrated in Figure 1.

Figure 1 - Percentage of Population 65 Years Old and Over, Canada, 1971 – 2051



Source: Statistics Canada, 2005

Policy Context

Since the 1970's, cities have implemented para-transit services for those that could not use the regular bus system. Over the past twenty years, several cities have implemented innovative initiatives aimed at increasing the overall accessibility of their public transit networks. Initially, transportation agencies have mainly focused on making their current networks accessible. Toronto and Montréal are rapidly retrofitting existing subway stations with elevators and other accessibility functions. Regular floor bus fleets are quickly being replaced by low floor buses which permit users in wheelchairs, or that have difficulty using steps, to use the bus. Bus routes for the elderly are but a next step in this evolution towards inclusive transit.

The City of Toronto and Outaouais Urban Community (now the City of Gatineau) are pioneers in implementing this specialized service for elderly passengers. Both cities have implemented bus routes dedicated to the elderly in order to meet increasing demand for efficient and appropriate public transportation service. These buses took into account the mobility restrictions, the trip patterns, and the scheduling requirements of the elderly.

In 1990, Toronto launched the first bus route for the elderly – the 170 Lawrence Manor. Following this example, the Outaouais Urban Community started a similar service in 1992 – the 300 line. Eventually, the concept attracted the City of Montreal's interest, leading it to implement pilot projects in two different neighbourhoods, Notre-Dame-de-Grâce and Côte-des-Neiges, in 2006. Although the service was not successful in terms of ridership numbers, the City's transit authority, the *Société de transport de Montréal* (STM), contemplated possible alternatives and continued to pursue efforts to make public transit more accessible to the elderly. Ultimately, the STM ended up operating 7 bus routes dedicated to the elderly called *La Navette Or* (*The Golden Shuttle Bus*).

Bus routes for the elderly differ from the usual public transit routes in that they provide a dedicated service to a specified segment of the population of a neighbourhood, rather than a general-purpose service for the population at large. This can be seen as a departure from conventional public transit policies, which focus primarily on ridership numbers to gauge success. In contrast, this approach focuses on improving accessibility, security, comfort, reliability and the overall quality of the travel experience. The route itineraries differ considerably in terms of the origins and destinations they serve from those of conventional bus routes. The former offer direct links between residences for the elderly and public facilities, commercial districts, community centres, hospitals, and so on, rather than links from bedroom communities to the city centre and other employment nodes.

These initial routes were developed in response to demands from users. However, over time, provincial governments, such as in Quebec, have developed various funding sources for new transportation projects. The *Programme d'aide gouvernementale à l'amélioration du service de transport en commun* (PAGASTC) has a specific section, which offers funding for elderly bus routes. Furthermore, requirements for elderly bus routes are emerging in planning documents of transit systems and various Canadian cities including Montréal, Toronto, and Sherbrooke.

Rationale and Objectives

The objectives of implementing bus routes for the elderly fall into three broad categories: (1) mobility, (2) social benefits, and (3) economic benefits (4) environmental benefits.

Mobility

The principal reason for creating dedicated bus routes for the elderly is to help increase their mobility. By increasing their mobility, these bus routes are intended to afford elderly people better access to the services they need. To meet this objective, transit authorities should seek to improve two key parameters: (1) comfort and safety and (2) convenience.

Problems experienced by senior users in the regular transit service are very often related to comfort and safety. Confronted with a limited number of seats, seniors cannot always be guaranteed a comfortable and safe trip when they use the regular transit services. By providing accessible buses, with low floors and ramps, and with more space dedicated to users with mobility aids, transit agencies can offer seniors with a more comfortable and safe ride, encouraging them to use these public transit services with greater frequency.

Dedicated bus routes for the elderly tend to attract a narrower, more homogenous cross-section of passengers, which may in itself encourage elderly people to use them. Furthermore, drivers of such buses are disposed to be much more responsive to the needs of elderly passengers.

In terms of convenience, regular public transit services do not always correspond well to the specific needs of the elderly, especially in terms of the locations they serve. Dedicated bus routes for the elderly provide direct links between their places of residence and shopping centres, public facilities, health and community centres, etc. The trajectories of these dedicated bus routes are plotted so as to reduce the total travel time for seniors on trips that they make regularly. They are also designed to reduce walking distances between bus stops and places of residence, waiting times at bus stops, and the number of connections required to get to the destination.

Social Benefits

In broad terms, the intention behind having dedicated bus routes is to improve seniors' quality of life and encourage their social and economic participation in their community. Reduced mobility and reduced access to services are ubiquitous problems affecting the quality of life of seniors across Canada, particularly those who do not have access to private automobiles. In particular, lack of mobility is widely believed to be psychologically detrimental to seniors, causing a sense of isolation and detachment. The provision of dedicated bus routes is intended to help seniors, especially those with reduced mobility, offers seniors the possibility to travel independently and continue enjoying a variety of services and public facilities.

Economic Benefits

The elderly are significant consumers of goods and services. By offering direct links between their places of residence and commercial areas, dedicated bus routes better allow seniors to participate in the economy.

Environmental Benefits

In the context of an aging Canadian population, bus routes dedicated to the elderly that are carefully developed with regards to the specific needs of the targeted clientele, and well promoted towards them may become highly popular in the years to come. Such sustainable transportation options may therefore diminish senior citizens' reliance on automobile and taxis. They may also diminish the need of these people to own a car, resulting in positive environmental impacts in the long run.

Actions

Several transit authorities in Canada are operating dedicated bus routes for the elderly. This issue paper looks at elderly bus services in three Ontario cities, Toronto,

London, and Windsor, and four Quebec cities, Montreal, Gatineau, Laval, and Sherbrooke .

Toronto, Ontario: The Community Bus Network

The Toronto Transit Commission (TTC), the City's transit authority, refers to bus routes dedicated to the elderly as the *Community Bus Network*. According to the TTC's definition, the Community Bus is an accessible, kneeling, fixed-route bus service aimed primarily at individuals who have some difficulty accessing the conventional transit system. Although the users of Wheel-Trans, Toronto's "para-transit" service, and seniors comprise the majority of customers served, anyone can use the service at regular TTC fares.

The 170 Lawrence Manor was Toronto's first bus route for the elderly, implemented in October 1990 as a pilot project that became permanent the next year. This solution was proposed to help diminish pressure on the para-transit network and diminish operating costs. The route continues to operate, and links residences in the Bathurst and Lawrence areas of Toronto inhabited by seniors with mobility challenges to local medical centres as well as shopping malls. The route proved to be very popular, leading the TTC to gradually add other similar routes, thereby creating the Community Bus Network. Today, there are five such bus routes, providing service in the Don Mills, East York, Etobicoke, Lawrence Manor, and Parkdale areas.

The five routes operate from Monday to Friday with an average headway of about an hour. Even though community buses do not offer a door-to-door service, bus stop locations were chosen on the basis of the density of elderly people.

Montreal: La Navette Or

Projects launched by networks in Montréal, Sherbrooke, and Laval was made economically feasible once the government of Québec implemented the *Politique québécoise sur le transport collectif* in 2006. The networks produced proposals for the provincial government, which included routes, frequencies, and estimated ridership, and quickly launched their services upon approval of the proposals.

In Montreal, the first initiatives towards setting up a bus route dedicated to the elderly were taken in 2006. Two shuttle bus routes were created as a pilot project, one in the Côte-des-Neiges district (route 21) and the other in the adjacent Notre-Dame-de-Grâce (NDG) district (route 23). The two shuttles operated only on Tuesdays, from 10:00am to 2:30pm. In May 2009, the pilot project was terminated and the two initial routes were cancelled due to insufficient ridership and a lack of interest from residents.

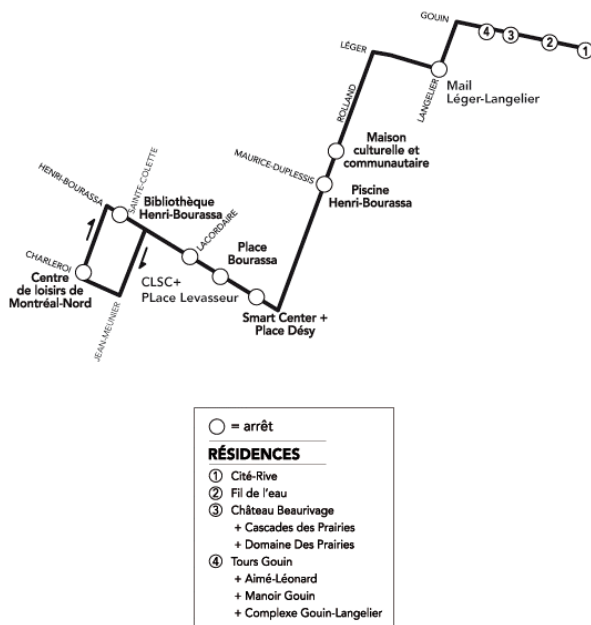
Despite the poor performance of the pilot project, the *Société de Transport de Montreal* (STM) continued working towards developing other new services for the elderly. In

September 2008, it launched *La Navette Or* (The Golden Shuttle), a series of bus routes specialized for elderly users. *La Navette Or* routes serve three Montreal boroughs, including: Montréal-Nord (route 252); Villeray–Saint-Michel–Parc-Extension (route 253); and Rosemont-la-Petite-Patrie (route 254).

The routes generally operate on weekdays between 9:30am and 3pm. The *Navette Or 252* serves the borough of Montréal-Nord three days a week (Monday, Wednesday and Friday) from 9:30am to 3:15pm, with an average headway of about 50 minutes. The route is 12.5 km long and has 26 stops. It serves a part of the borough in which several large residences for the elderly are located, linking them to the Langelier shopping centre, the Henri-Bourassa swimming pool, as well as several community and cultural centres (see Figure 2). As for the *Navette Or 253*, it operates in the Saint-Michel district and has 29 stops serving shops, community centres, health services and residences for the elderly. Finally, the *Navette Or 254* offers a similar service to the elderly clientele of the borough of Rosemont-la-Petite-Patrie with 37 different stops, of which 20 serve senior residences. The shuttle operates a 21 km circular route with an average headway of 65 minutes.

All three of the “Golden Shuttles” are intended to enhance the accessibility for seniors in the areas they serve, as regular public transit service in these areas corresponds well to seniors’ particular requirements.

Figure 2 - Route map for Navette Or 252 Montréal-Nord



Source: Société de Transport de Montreal.

Since these first three bus routes dedicated to the elderly in Montreal proved to be effective and appreciated by users, Michel Labrecque, chairman of the STM, announced on September 17th, 2009 the launch of four additional *Navette Or* routes that will operate starting October 12th, 2009. These will include: 256 Lasalle, 257 Rivière-des-Prairies, 258 Hochelaga-Maisonneuve, and 259 Mercier-Ouest. The new services will operate with minibuses that can accommodate 14 passengers and are fully accessible for people with reduced mobility. Like the original three *Navette Or* routes, the four new routes will serve a combination of retirement homes and local points of interest, such as commercial districts, shopping malls, health centres, recreational and community centres, etcetera. The new routes will operate on certain weekdays, during off peak hours (from 9:00am to 4:00pm). Routes 256 and 258 will operate three days a week (Monday, Tuesday, Thursday and Monday, Wednesday, Friday respectively), whereas the Lignes 257 and 259 will only operate two days a week (Tuesday and Thursday in both cases). At bus stops, *Navette Or* route numbers are labelled with a distinctive gold background (Figure 3); regular routes numbers have a blue background.

The boroughs served by *Navette Or* routes are also involved in marketing the new service, as are local community centres. The marketing campaign has involved the distribution of information brochures at all retirement homes served by *Navette Or* routes and placing posters advertising the service in locations along *Navette Or* routes that are frequented by the elderly. Detailed information about the service can be obtained by telephone and on the STM website; the coordinates for both are prominently advertised on the aforementioned brochures and posters.

Figure 3 - Navette Or bus stop signage



Source: Société de Transport de Montreal

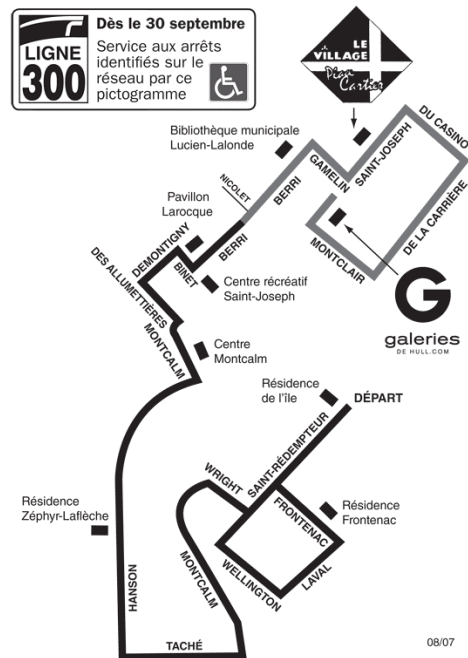
Gatineau, Quebec: Route 300

In 1992, the Outaouais Region¹ transit authority – the *Société de Transport de l'Outaouais* (STO) – launched bus route

¹ The Outaouais Region, or *Communauté Urbaine de l'Outaouais*, was amalgamated in 2001, forming what is called today the City of Gatineau.

300, following a 1991 internal study on how to better respond to the need of the elderly, which established the general parameters of the project. The specialized bus route offered a direct link between certain residential areas populated by seniors and the Village Place Cartier and Galeries de Hull shopping centres. In the beginning, route 300 provided one roundtrip per week. The route has since been gradually modified and adapted to the needs of the population. Originally, it served several seniors' residences as well as recreational and health centres. However, due to a lack of interest at certain residences and in certain neighbourhoods that it originally served, the route was shortened in order to focus only on a reduced number of residences as well as the two aforementioned shopping centres. As of 1997, the route 300 has been operating one roundtrip twice a week – on Tuesday and Thursday, between 1:00pm and 3:00pm. On average, there are about 10 passengers per trip, totalling 20 passengers per day of operation.

Figure 4 – Route map for STO route 300



Source: Société de Transport de l'Outaouais.

London, Ontario

The London Transit Commission has been operating three different bus routes dedicated to the elderly for over ten years. Accessible minibuses that can accommodate up to 20 passengers and up to three wheelchairs when 11 seats are removed are used on these routes.

One route operates two days a week (Mondays and Thursdays), while the second route only operates on Friday and the third one on Mondays and Wednesdays during off peak hours (i.e. from 9:20am to 2:30pm). A one-way trip lasts from 20 to 30 minutes, with an average headway of

one hour. About 80% of the residences served by this bus route are offered a door-to-door service.

Windsor, Ontario

Transit Windsor, the regional transit authority, provides a bus route dedicated to the elderly using a full size low floor bus. Although it is a conventional bus, it is fully accessible to people in wheelchairs and with other mobility restrictions. Users can benefit from the driver's assistance to get on and off the bus.

The service operates two trips per day from Monday to Thursday. It offers a direct link between residences for the elderly (varying from 3 to 14 residences per trip) and only one given destination per trip (either a shopping centre, or a grocery store) instead of providing multiple stops like regular bus service.

Sherbrooke, Quebec

The *Société de Transport de Sherbrooke* (STS) launched a shuttle bus dedicated to the elderly in 2006. The service operates two minibuses that can each accommodate 24 passengers. In the beginning, the service was offered every weekday from 8:45am to 4:20pm. However, owing to its success and in order to meet the users' demand, the STS added additional weekday runs as well as new runs during the weekend (on Saturday and Sunday).

The service offers a link between residences and shopping centres, parks, and public facilities. Users are allowed to get off the bus between stops upon request.

Laval, Quebec

Since 2006, the *Société de Transport de Laval* (STL) has been operating bus routes dedicated to the elderly. The first route, R-104, was designed to link retirement homes to neighbouring shopping malls, community centres, hospitals, and community medical clinics during off-peak hours. Users can get on and off the bus between stops all along the route. Under certain conditions, it is also possible for a senior user to ask for a slight detour from the regular path. Several other similar routes were added following the success of the R-104.

The STL operates low-floor buses as well as minibuses on bus routes for intended to serve elderly users. The routes, though specialized for the elderly, are open to all users for the regular STL fare.

Results

Ridership is not necessarily the best criterion for evaluating the success of dedicated bus routes for the elderly. Because such bus services are designed to maximize accessibility for seniors rather than overall ridership, and because many of services have only recently been established, the figures for ridership are often considered low. It is more appropriate

to measure success in terms of the number of new transit users attracted to the bus routes.

Ridership figures for the seven systems are provided below.

Toronto, Ontario: The Community Bus Network

As Toronto’s dedicated bus routes for the elderly have been operating for well over a decade, reliable statistics on their performance are available. Ridership in 2008, the most recent year for which statistics are available, was found vary across routes, ranging from 5.9 to 9.8 passengers per vehicle-hour. More detailed statistics on the *Community Bus Network* as a whole are provided in Table 1.

Table 1 - Statistics on the Toronto Community Bus Network

	2008	2007	Change
Passenger Trips	85,065	85,720	555
Average Daily Trips ²	326	329	(3)
Kilometres Operated	153,203	153,203	
Miles Operated	95,216	95,216	
Service Hours	10,269	10,269	
Revenue Vehicles	5	5	
Number of Routes	5	5	

Source: Toronto Transit Commission, 2008 Operating Statistics

Montreal, Quebec: La Navette Or

Relevant ridership figures are yet to be calculated for the *Navette Or* since it has been operating for only one year. However, headcounts were conducted on the three original routes in March and April (Table 2).

Table 2 - Spring 2009 headcounts on Montreal Navette Or bus routes

Route	Date	Passengers
252	March 6th, 2009	20
253	April 15th, 2009	15
254	April 14th, 2009	20

Source: Société de Transport de Montréal

According to a first survey of users, the STM claims that it has been successful in better meeting the accessibility requirements of the elderly in Montreal. The *Navette Or* service has purportedly succeeded in reducing the walking distance to transit for many senior users and the number of transfers they need to make in order to get to their destination.

The satisfaction of the elderly is very important for the STM insofar as it pursues qualitative objectives for this project, such as accessibility, comfort, and sense of safety, rather than strict quantitative ridership objectives.

² Community Bus does not operate on weekends or holidays.

Gatineau, Quebec: Route 300

In the Gatineau case, on average, ridership went from 8 passengers per day in 2002 to 34 passengers per day in 2005 (source: Société de transport de l’Outaouais).

London, Ontario

The bus routes dedicated to the elderly provided in the City of London are considered relatively efficient. The estimated performance of these routes varies from 16.5 to 20.5 passengers per vehicle-hour, depending on the bus route. The high ridership numbers can at least partly be explained by the fact that the routes have operated for more than ten years and, as result, residents are well aware of their existence. As well, the positive results are believed to reflect the fact that the average trip time is relatively short, especially when compared to dedicated bus routes for the elderly offered in other cities. Having door-to-door service is also believed to have benefited ridership numbers.

Windsor, Ontario

The performance of the Windsor Shuttle bus is considered to be the best among those of the seven cities examined in this paper. The number of passengers per vehicle-hour varies from 19 to 35. This success is attributed to the fact that the dedicated bus routes only serve one destination, rather than multiple destinations. Having simple, direct routes allows for short trip times, a feature that appeals to users.

Sherbrooke, Quebec

The dedicated bus service for the elderly reaches up to 10.4 passengers per vehicle-hour. Though the service appears very successful at first glance, it is important to consider that that only 55% of the users are elderly people.

Participants

The elderly are key participants in these projects. They were often a part of public consultations and other kinds of inquiries and surveys in order to determine their transportation needs, and to decipher their specific requirements.

For many transit providers, the implementation of elderly specific shuttle bus services also required close cooperation between residents, community groups, cultural and shopping centres, as well as transit authorities’ representatives.

In all of the municipalities highlighted, the role played by different community organizations was important in providing dedicated bus services to the elderly. It was the community organizations that promoted awareness and encouraged the use of such bus services by their elderly members. For example, in Montreal, the Association of

Island of Montreal Adapted and Accessible Transportation Users (*Regroupement des usagers du transport adapté et accessible de l'île de Montréal* or RUTA), the Golden Age Federation of Quebec (*Fédération de l'âge d'or du Québec* or FADOQ), and the Senior Citizen's Council of Notre-Dame-de-Grâce played a crucial role in promoting the *Navette Or* bus routes to seniors. Transit authorities in the examined cities also relied on the support of the different shopping, cultural, recreational centres, and health services to promote the dedicated bus routes to seniors.

In the case of Montreal, the provincial government also participated in the *Navette Or* project by providing financial support. The money came from a provincial fund focusing on public transportation accessibility, the *Programme d'aide gouvernementale à l'amélioration du service de transport en commun* (PAGASTC), which is administered by the provincial ministry of transportation.

Resources

For Montreal's *Navette Or*, the estimated cost is about 1,000 hours³ per year and per shuttle bus. These hours are eligible to the Transports Quebec's subsidies as part of the *Programme d'aide gouvernementale à l'amélioration du service de transport en commun*. Furthermore, Transports Quebec will also subsidize the acquisition of 12 new minibuses in 2012 in order to replace the old ones and to be able to add new bus route services as soon as possible.

In Gatineau, the two destination shopping malls, *Galleries de Hull* et *Village Place Cartier*, initially participated to the sum of \$1,600 yearly as a subsidy to the transit authority. These commercial centres are active participants in these bus routes projects, as their economic situation depends on the ability of elderly residents to access these centres.

In Montréal, Laval and Sherbrooke, the cities were able to launch their elderly bus routes with help from the government of Québec's *Politique québécoise sur le transport collectif* implemented in 2006. This policy makes available additional money for new services not currently subsidised under existing transit funding programs.

Lessons Learned

Key lessons taken from the experience of the seven cities examined in this paper are summarized below:

- Ridership numbers on elderly bus routes are likely to grow slowly. Based on the experience of some transit authorities, it can take up to two years for dedicated bus routes for the elderly to accumulate significant numbers of regular passengers.

³ Often in bus planning, hours are used in planning exercises, as they are a known variable which we then apply an hourly cost. It is then much easier to plan over the years.

- It may be helpful to serve at least one shopping centre, as these are the most popular destinations for elderly users, according to most transit authorities origin-destination data collected on elderly bus routes.
- Stops at healthcare facilities are not very popular. The infrequent schedules of most dedicated bus routes for seniors do not correspond well to typical appointment times, which tend to be early in the morning.
- The amount of time spent in the bus is a major determining factor for transit usage for seniors. As was seen in Windsor, short trip times are likely to help attract users.
- Keeping the same driver on the route helps build a sense of trust and security in elderly users. A driver familiar with the needs of individual users can also provide more targeted assistance.
- Minibuses are preferable to conventional buses in most situations. The number of users is liable to be insufficient to fill a conventional bus, and minibuses are generally more accessible and more flexible for both users and drivers.

Next Steps

Most cities have worked towards increasing the accessibility of their services for clientele with specific needs such as the elderly: extensive para-transit services were developed since the 1970's; significant amounts of money were invested over the last 15 years into upgrading the existing public transit networks (i.e. low-floor buses, audio and visual station announcements). Bus routes for the elderly are but a next step in providing better transit.

Due to an aging population, we will see ever growing networks of bus routes for the elderly in cities across Canada where a regular transit system exists. In order to develop successful new networks, it is therefore important for transit providers to understand the service needs of elderly clientele and develop routes, buses, and operations that meet these unique requirements. As previously underlined, including the population targeted by these services is crucial to their success, both upstream and after the implementation. Indeed, when developing the projects, public consultations are essential and must be held where elderly people are, such as: seniors' residences, community and shopping centres. Another step to consider for transportation planners might be to consult with project developers when new residences open for seniors; working hand in hand with promoters could contribute to a higher ridership as soon as the beginning of realty projects. After the implementation of the dedicated routes, it is important to stay close to the clientele by assuring visibility of services towards them, possibly by providing them with

punctual information sessions on how to use the service. Collecting their feedback on the bus routes in activity and making adjustments as needed are also essential to the success of these projects. Finally, we must not forget that the use of elderly bus routes not only diminishes automobile dependence and costs among senior citizens; it also gives them the freedom to continue to participate actively in our communities.