TABLE OF CONTENTS

Introduction .................................................................................................................3
Background ..................................................................................................................4
Scope of Work and Methodology ..............................................................................8
Survey ........................................................................................................................10
Focus Group ..............................................................................................................15
Literature Review ......................................................................................................17
Best Practices ...........................................................................................................20
Recommendations .....................................................................................................23
INTRODUCTION

For most of us, transportation is an ordinary part of everyday life. But for many around us, getting to the store, the doctor’s office, or anyplace they may need or want to go, is fraught with challenges and barriers. The purpose of this Transportation Barriers study is to identify those challenges often faced by seniors and disabled members of our communities and to provide the information needed to inform policy-decisions and develop strategies.

So, who are the people we are trying to serve through this effort? While each story is different, many of those in need share common traits. While the individuals described below are not actual persons, their stories are typical of the accounts of real members of communities throughout North Carolina’s Centralina Region.

The People We Serve

“Minnie” is a ninety-two-year-old WWII veteran. She enlisted after high school at the age of nineteen and was one of some 400,000 women who served during that time. Minnie served honorably in the Navy Nurse Corps where she would meet her late husband of sixty-six years. She’s a proud resident of South Gastonia. It’s where she and her husband made a home and raised a family. Minnie and her family used to visit Crowder’s Mountain State Park and Davis Park often. The family used to refer to them as their second and third back yards.

Occasionally, the family still gets together on holidays at grandma’s house, but many of the grandchildren are starting their careers and that makes it hard to get everyone together. Minnie now lives alone on less than $11,000 per year, her age, and physical condition prevents her from driving a vehicle anymore. One of her granddaughters lives in Charlotte. She does her best to provide transportation to Minnie, but often can’t find the time when something comes up last minute. Senior transportatopm has also provided her service, but Minnie is still unable to get to her doctor’s appointments regularly and usually misses at least one each month.

“Walter” is described by friends and family as a man of his community. He’s spent his entire sixty-eight years living happily just south of Lincolnton near Iron Station and he’s never had any desire to leave. His health has declined this past year after having a mild stroke which has limited the function of his right arm, but you’ll still find him stubbornly walking the farm that has been in his family for four
generations. His son has chosen a different line of work. His beloved truck recently stopped running and Walter just doesn’t have the money or ability to work on it like he once did.

Walter and his wife can’t afford a new car and live on less than $20,000 per year. To bring in some income his wife works part-time in East Lincolnton and spends about fifty minutes per day driving to and from work. Walter has missed several doctor’s appointments since his health began to decline. His friends and family are not reliable enough because they have their own health issues or busy schedules; he doesn’t qualify for disability transport, and senior transport doesn’t serve his area. From the food he grew to the vehicle he drove, Walter had always been a self-sufficient man. Adjusting to life with limited mobility has been difficult for Walter and his wife.

“Grace” moved to Charlotte in the late 1970s from New York. She has lived a life of great adventure traveling around the world several times, but Grace always found a way to make it back to the city she calls home. With one conversation, it becomes clear that Grace has lived an exciting seventy-five years. Charlotte has changed immensely since she moved here nearly forty years ago. During that time, she’s seen the city grow and watched the cityscape change a dozen times over. Until about five years ago, she could be found enjoying one of the many great restaurants in Uptown or walking with her friends at McAlpine Creek Park. She has supported public transportation her entire life and sold her last vehicle in the early 2000s. In recent years, several of Grace’s closest friends have passed. Grace spends more and more time at home occasionally taking the bus to a park where she likes to sit and read.

Ten years ago, Grace would have gone anywhere. However, now that she’s beginning to age rapidly and doesn’t have her girlfriends around, public transportation doesn’t feel as safe as it once did. She still wants to go out and enjoy the city she loves, but can’t find a transportation option that feels safe and is also flexible.

BACKGROUND

The U.S. Census Bureau projects that by 2030 more than 20 percent of U.S. residents will be sixty-five and over, compared to 13 percent in 2010 and 9.8 percent in 1970. With a projected population of nearly 3 million for the Charlotte area by 2030, that will equal approximately 600,000 residents in this age bracket. With this changing demographic landscape comes a set of challenges that need to be met proactively. By far, the elderly are the most impacted by transportation mobility barriers.

The Centralina Transportation Barriers Study was developed under an FTA Section 5310 grant from the North Carolina Department of Transportation (NCDOT). This project was funded in order to engage with seniors and residents with disabilities, identify and analyze the barriers and issues that these populations face on a daily basis in the Centralina nine-county region, identify nationwide best practices, and provide recommendations to applicable transit and paratransit agencies for improvement. The barriers study builds off of the work of the 2013 Centralina Mobility Management Plan, which established a Mobility
Management Agency and set the stage for a regional volunteer transportation system and region-wide mobility cooperation and information sharing.

This mobility management study targets two distinct sets of problems in the Region:

1. **Perceptual and physical barriers faced by non-drivers**

2. **Perceptual and physical barriers faced by drivers who are older adults or people with disabilities.**

Perceptual barriers are those barriers that stem from assumptions or misunderstandings from our own experiences, attitudes, values or fear of the unknown or lack of information. Examples of a perceptual barriers in transit include avoiding transit due to safety concerns or the fear that the application will be too complex. Physical barriers include issues such as inadequate space for wheelchairs at transit stops or lack of sidewalks around transit stops.

Identifying the non-driver issues is crucial, but it was also determined early on that challenges faced by older adults and people with disabilities who drive are also central to understanding transportation barriers. It is certain that many drivers will become non-drivers in the near future.

“We can drive now…but may not be able to for much longer. Nothing is accessible to us without a vehicle and we feel increasingly isolated.”

Drivers and non-drivers require their own unique solutions. For example, strategies for current elderly or disabled drivers should focus on informing the individual about the forthcoming challenges they will likely face and the services and options available to them in their area, as well as potential steps that can be taken now to reduce the number
of transportation barriers they’ll encounter in the future. For non-drivers, strategies should focus on the restructuring of current services or the creation of new services to meet the unmet needs of those individuals as quickly and cost-effectively as available resources permit.

The Centralina Region is home to roughly 2.1 million residents distributed across 9 counties. Most of the Region’s major transportation service providers operate within either the Charlotte, Concord, or Gastonia Urbanized-areas (UZA). Thirty-one transit services serve the Region, as well as taxi service, Uber, and 6 volunteer mobility programs. Seventeen operate within the Charlotte, Concord, and Gastonia UZAs. The largest of the three, the Charlotte UZA, encompasses most of Mecklenburg County. In Mecklenburg County, CATS and MTS are the largest agencies. Mecklenburg, located at the center of the Region, has a rural population of only about 1%. Residents within the Charlotte UZA, in comparison to the rest of the Region, have relatively high access to multiple forms of public transit. The densely-populated county makes multi-model transportation options and services viable.

“In a small town, there are no options for transportation that I can afford.”

41% DO NOT DRIVE

9 COUNTY REGION

1,167 SURVEY RESPONDENTS

73 AVERAGE AGE

TRANSPORTATION BARRIERS
In the surrounding rural counties of the Region, the lack of density makes transit services more difficult to sustain, yet these are the counties that have the highest percentages of elderly community members. In Lincoln County, 1 out of every 4 people is over the age of 65. Similarly, Stanly, Rowan, and Anson County all have elderly populations that comprise over 15% of the overall population.

Senior and disabled community members with mobility challenges are a difficult demographic to reach. People who are 65 and over use the internet and communication technology significantly less than younger aged-cohorts. This fact inhibits typical engagement efforts because information must often be disseminated through an intact group that works with the older population. Surveys are an effective tool; however, due to the technology barriers, online surveys require unique outreach. Paper surveys are typically more effective with elderly populations but necessitate extra efforts to distribute and recover them. Lastly, due to this group’s general lack of transportation access, it is challenging to host events with significant turnout without extensive stakeholder coordination and preparation.
SCOPE OF WORK AND METHODOLOGY

Since senior and disabled community members are a uniquely difficult demographic to reach, the strategy to identify the perceptual and physical barriers faced by drivers and non-drivers in the Centralina Region required the cooperation of multiple organizations. The organizations responsible for this investigation are the Centralina Area Agency on Aging (AAA) and the Centralina COG Planning Department. To conduct the investigation, the team used a combination of online and paper surveying, focus groups, conducted a literature review, and analyzed nationwide best practices on transportation mobility.

SURVEY

The 17-question survey went live January 27, 2016. The AAA sent the survey link to all 33 AAA Providers in the Centralina Region that receive Older American’s Act Funding, including Home and Community Care Block Grant Programs.

In addition, emails were sent to the Evidence-based Health Programs volunteer database (85 members) and other Human Service agencies across the region. The Metrolina Falls Prevention Coalition and the Centralina Region Aging Advisory Committee were also utilized to widely distribute the survey. Information was presented at the Quarterly Regional Senior Center & Nutrition Provider Meetings. Senior Nutrition Providers distributed and collected surveys at the congregate nutrition programs and to their home delivered meal clients in the Centralina region.

“Family is not available. Friends are not always available. Some of the options offered are too difficult for me. I need personal transportation.”
Senior Centers provided hard copies of the survey, and several bookmarked the survey link to the survey on their computers in the Senior Center Computer Labs. The Charlotte Chamber of Commerce and Arthritis Services included information about the survey in a newsletter. Volunteer Transportation Services mailed hard copies of the survey to more than 200 people on the waiting list in the region for Volunteer Transportation Services. The survey was also distributed via email to the Centralina Mobility Management listserv of transportation stakeholders in the 9 county region. CATS and TLC transportation providers facilitated the survey process. A partner at Disability Rights & Resources helped to distribute hard copies of the survey in 4 counties. The survey was mailed out with the South Iredell Senior Center Newsletter. The survey closed May, 2016. Union County conducted targeted outreach beginning June 21, 2016 due to the low response rate. At the conclusion of the survey collection period, CCOG received responses from 1,167 older adults and/or people with disabilities from across the 9 county Centralina Region.

“Transport arrives way too early and leaves you stranded for an hour or two. I am exhausted when I get home.”
SURVEY RESULTS

Responses: 1,167  Average Age of Respondent: 73

Key Findings

The survey confirmed the most prominent challenges faced by seniors and impaired individuals: financial constraints, isolation, physical access issues, and lack of eligibility for transit programs. More than half of those surveyed (57%) report that they live alone. 41% cannot drive themselves, and family and friends are often not around to provide reliable assistance when a trip is needed. But paying for transportation is also a challenge when 38% of those surveyed make less than $11,000 per year, and over half of those surveyed do not have a current Medicaid card. Respondents also noted that they were not eligible for either senior or disabled transportation programs (this ineligibility could be a perceptual barrier or a real barrier). Physical barriers were also listed as issues for riding transit. Presented with these hardships, many who need to reach destinations – even for critical needs like doctor’s appointments - will be unable to due to a lack of viable transportation options.

During the past 6 months, how many times were you not able to get to a desired destination?

“\"I want safer bicycling and walking for when I can’t drive anymore.\"”
MOBILITY MANAGEMENT
Transportation options tried

- **48%** Friends or Family
- **18%** Bus
- **6%** Lynx
- **6%** Church Transport
- **11%** Disability Transport
- **17%** Senior Transport

Do you have a disability?

- **Disability**
- **No Disability**
- **Self Described Disability**

If you don't drive, why not?

- **Medical/physical Condition**
- **Can't Afford a Car**
- **Can't Afford Gas/Insurance**
- **Lost My Driver's License**
- **I Can Access Everything Without One**
- **My Car Needs Repairs**
57% of respondents live alone.

38% make less than $11,000 per year.

56% do not have a current Medicaid card.

13% said they have missed a doctor’s appointment in the past 6 months due to a lack of transportation.

41% do not drive.
Survey Question #13:
Have you missed a doctor's appointment in the past 6 months due to lack of transportation?

Drivers and Non-Drivers
- 86% No
- 14% Yes

Non-Drivers Only
- 74.03% No
- 25.97% Yes

Survey Question #14:
During the past 6 months, about how many times were you NOT able to reach a desired destination due to a lack of transportation?

Drivers and Non-Drivers
- Never: 67%
- Once: 12%
- Once a week: 11%
- Multiple times weekly: 4%
- Once a month: 6%

Non-Drivers Only
- Never: 44%
- Once: 17%
- Once a month: 19%
- Once a week: 8%
- Multiple times weekly: 12%

“Older women typically have a 10-yr period when they are dependent on forms of transportation other than driving a personal vehicle; men typically have 6 years.” (Foley, Heimovitz, Guralnik, & Brock, 2002).
Survey Question #17:
Available options that have been tried, and the #1 reason given why they don’t work.

- LYNX isn’t all that accessible.
- The bus isn’t always accessible.
- Friends & Family aren’t reliable.
- Church Transport isn’t always accessible.
- I don’t qualify for Disability Transport.
- I don’t qualify for Senior Transport.
FOCUS GROUP

On March 1, 2016, a focus group composed of 25 mobility provider and regional planning professionals met in Charlotte at the CATS South Tryon Bus Facility to answer four critical questions.

Key Findings

Inadequate funding poses a primary challenge for meeting the expanse of transportation needs in the region, but so does inadequate coordination of services, and lack of training to accommodate riders with disabilities. While a number of transportation options may be available, those in need of them often face challenging hurdles when applying for service from public agencies, due to the complications of the processes, or the confusing vagaries of meeting the qualifying criteria. Services are not sufficiently coordinated to streamline the effort and fill the many gaps of service often encountered, for example when crossing county lines and other boundaries of service. Inadequate public funding affects both actual level of service and perceptions about the service by potential users. Private services are often not an option because the providers are not adequately trained to provide assistance to those riders in need, or are prohibitively expensive. And the need for transportation is compounded by the low emphasis placed on transportation needs when planning locations for facilities that serve the elderly and physically impaired.

1. What is your greatest challenge in serving older adults and people with disabilities as a transportation provider?

The group agreed upon three major challenges to serving older adults and people with disabilities. First, the available funding for serving older adults and people with disabilities is inadequate for delivering the kinds of services needed. Inadequate funding can effect a transportation provider by negatively influencing the perceptions of their potential client base which leads to lower ridership. Ultimately, this cycle can cause funding sources to deduce that the provider is underperforming. Secondly, smaller transportation services and private taxi services lack the training to accommodate riders with disabilities. This too can deter a potential client base from utilizing an available transportation option.

Lastly, political boundaries and political will are also major obstacles to providing service to older people and people with disabilities. Often times funding is only available for certain political boundaries such as a county or select urbanized area. In a nutshell, transportation needs transcend political boundaries but, in most cases, transportation funding does not.

2. What do you believe are the barriers to transportation access for older adults and people with disabilities?

The group agreed that the barriers to transportation access for older adults derive from two fundamental sources: a lack of client-focused processes and unfavorable land use planning practices. In the case of providing transportation to older adults and people with disabilities, often times applications and wait times are excessive and do not meet the client’s expectations. This can be the
result of many factors, but dispersed roles and duties are usually at the root of the problem. Such organizational silos are likely the result of the design of the funding structures themselves.

A lack of client-focused land use planning also limits access. In many cases, assisted living centers are located outside of bus service areas in peripheral lands where property is less expensive. The question of how the residents of such facilities will get around is often overlooked in lieu of the many other issues being considered in the planning, budgeting and development approval stages.

3. Describe who doesn’t qualify for your services or cannot access your services and why?

Many of the people who do not qualify for transportation assistance are those who reside outside the area mandated by the particular funding stream, or who do not have disabilities that fit the criteria of the funding. This problem is associated with projects being designated as either capital or operating. In many cases, grants are for capital projects and not for ongoing operating expenses.

4. What changes or solutions can increase or enhance transportation options/access for older adults and people with disabilities?

Coordination requires sharing power, responsibility, management, and funding. The group suggested that duplicated efforts and a lack of coordination between transit and paratransit agencies are inherently ineffective. The group agreed that improved coordination between transportation agencies, especially large ones, would improve the structure of transportation delivery, increase funding to expand the kinds of services available, and enhance community wellbeing. For example, fixed route services could give free passes to people who are eligible for para-transit. Another example, could be a grant that can be used for both capital and operating projects with flexibility of the primary organization to allocate funds appropriately depending on the unique circumstances of the client-base.

Before power, responsibility, management, and funding can be shared, regional transportation goals must be clearly defined and agreed upon. The group said this would be difficult to achieve without an external agency mediating cost allocation; one that would act as a regional transportation advisory commission. The importance such a body would play in achieving regional transportation synchronization was illustrated in a discussion of the Federal Intelligent Transportation Systems Joint Program Office (ITS). ITS is charged with conducting research, development, and education activities to facilitate the adoption of information and communication technology to enable society to move more safely and efficiently. In some regions where ITS has been implemented, smaller organizations did not have the funding or the technological know-how to utilize the ITS software and, in some cases, opted for another transit software which did not connect with other software platforms. Had a regional transportation commission been allocating costs, they may have been able to forecast such issues and find creative ways to ensure that all of the region’s transportation organizations had the necessary funding and skills to use ITS. This was a key conclusion in the 2013 Centralina Mobility Management Plan.
LITERATURE REVIEW

Key Findings

A review of the literature on the subject of transportation barriers quickly reveals that extensive study has been done on this wide-ranging subject. The research provides a very helpful context for the survey and focus group results of this project, showing that this region shares many of the issues found throughout the nation. While the issues and solutions are broad in scope, certain themes rise to the top, mainly those concerning better coordination of transportation services, and overcoming challenges that result from automobile-oriented land development patterns.

According to the breadth of literature, greater coordination of transportation services – with resulting cost savings, more choices of transportation options, and overall increased levels of service – can be achieved by utilizing the array of emerging strategies that fit under the umbrella of mobility management. The solutions offered in overcoming barriers in transportation services are in particular need by the elderly and impaired that reside in often underserved rural areas.


This report was written to provide a better understanding of mobility management, particularly for organizations transitioning from traditional transit operations into mobility management. It includes a compendium of mobility management functions; identifies barriers to mobility management; includes findings drawn from case studies; presents actions to promote mobility management; and documents the results of technical assistance provided to transit systems.

American Public Transportation Association, Mobility Management: A New Role for Public Transportation (Washington, D.C., 2008)vii

This brochure was designed to provide an introduction to the concept of mobility management, with the intention that transit agencies should, over time, move beyond the traditional role of operators of fixed-route service to assume a broader role in coordinating the full range of mobility services in their communities.

Wisconsin Department of Transportation, Mobility Management Practices in Wisconsin, Bureau of Transit, Local Roads, Railroads, and Harbors (Madison, WI, 2015)viii

This report details a search project to obtain an understanding of mobility management practices both within its own state and nationally. It includes information about mobility management services, coverage areas, existing partnerships, funding, barriers, and opportunities. It identifies coordinating services and programs, customer needs, service gaps, best practices and potential partnerships.

National Council on Disability, Transportation Update: Where We’ve Gone and What We’ve Learned (Washington, DC, 2015)
This report addresses the achievements and advances that have occurred in the field of transportation in the last ten years for people with disabilities, as well as what has been learned and where problems remain. While significant advances have been made, transportation problems persist for people with disabilities, including many obstacles to taking full advantage of all forms of public transit. Rural areas still lag well behind in terms of transportation options, although programs to improve rural transportation are proliferating.

Texas Council for Developmental Disabilities, Barriers to Transportation in Texas, News and Information (blog), October 2, 2015

This article briefly describes common barriers to transportation and mobility, addressing infrastructure, Medicaid, the Texas Medical Transportation Program, geographic boundaries and ride sharing services.

Dickerson, et al., Transportation and Aging: A Research Agenda for Advancing Safe Mobility (The Gerontologist, 2007) 578-590

This article highlights important research needs in a number of key areas of older driver safety and mobility that hold promise for achieving the safety and mobility goals for the aging baby boomers and future generations of older drivers. The article addresses key areas of screening and assessment, remediation and rehabilitation, vehicle design and modification, technological advancements, roadway design, transitioning to non-driving, and alternative transportation to meet the goals of crash prevention and mobility maintenance for older adults.

Brian Cronin and Yehuda Gross, Mobility Services for All Americans: A Major ITS Initiative, Department of Transportation (Washington, D.C., 2009)

Transportation services are currently spread among 62 federal programs. The goal of the Mobility Services for All Americans (MSAA) initiative is to improve transportation services and simplify access to employment, healthcare, education, and other community activities by means of the advanced technologies of Intelligent Transportation Systems (ITS)


In many countries, people with disabilities and the elderly are more likely to be among the poor as their livelihoods and economic opportunities are limited as they are often excluded from basic necessities such as education and employment, health care, social services as well recreational activities because they face barriers to accessing transport services. Accessible transport is an important factor in reducing poverty as it can facilitate the participation of people with disabilities and the elderly in economic, social and political processes. Moreover, an accessible transport system promotes independence and choices for people with disabilities and the elderly.

Transportation Research Board, Transportation in an Aging Society: Improving Mobility and Safety for Older Persons, National Research Council (Washington, D.C., 1988)
This study is about the needs and problems of older Americans in relation to the nation’s system of roadway transportation. The study committee was comprised of authorities in gerontology, urban planning, public transportation, driver education, licensing and related issues. Their task was to evaluate available information related to related safety needs, identify potential measures to improve facilities and user performance, and weigh the trade-offs between safety and mobility objectives in public policy.


For many people with psychiatric disabilities, transportation remains an obstacle to community integration. This monograph provides a brief guide to public transportation and private mobility policies, programs, and practices that impact the lives of individuals with psychiatric disabilities. It addresses three major questions: What public policies should consumers and providers unite around? What programs can mental health provider agencies (including consumer-operated programs) put into place? And what can consumers do to overcome these persistent barriers?

“My husband and I both need to see the doctor. We feel that we have no way to get there now. We are not sure we are able to get our medicines and examinations that we need.”
BEST PRACTICES

The following examples of Best Practices, for improving accessibility and overcoming common barriers to transportation, offer solutions that correspond to a wide assortment of needs. Many of the solutions described here are programmatic and educational, and address policy and service coordination. Others relate directly to design and location of facilities to create a more accessible environment for seniors and the impaired population.

One-Call/One-Click

A mobility management service that assists adults with disabilities and senior citizens locate transportation opportunities that are best suited for their specific needs. These programs are customizable to cater towards and benefit the customer or community that they are servicing. Users may call or use a website to request transportation or aid in finding information about public transportation accessibility. This streamlines the process and eliminates the frustration of finding transportation options for the elderly and disabled.

Example: MYRIDE2 – a Detroit area ride finder service funded through grants secured by the Jewish Family Service and the Area Agency on Aging.

Linking Land Use and Transportation Planning through Extensive Public Involvement

Grassroots community-based planning techniques are incorporating into the statutory transportation planning process, while developing strategies for linking land use and transportation planning for neighborhoods to regions. This comprehensive approach relies on getting people to the table through public relationships and partnerships. Inter-agency teams are forged for cross-program coordination. Relevant stakeholders compose the project steering committee and issues-oriented focus groups, while elected officials and prominent community members are tapped to encourage community involvement. Trained facilitators and staff help educate the community on topics like land use, housing, workforce, environment, economic development and multi-modal transportation, through hands-on public workshops that employ multi-media presentations of clearly presented data and place based design options, and incorporates activities such as walkability audits, or land-use design exercises with markers and land-use chips. A goal of the process is a prioritized action agenda of cost-effective projects with identified funding sources, and implementable steps that is then adopted by the involved jurisdictions.

Example: UNITED JEFFERSON AREA MOBILITY PLAN (unJAM 2025) - a regional long-range transportation plan linking transportation, land use, economy, and environment.
Travel Training
Implementing educational programs designed to assist older drivers in roadway policies and proper driving etiquette may enhance driver safety and improve mobility. To help seniors and adults with disabilities remain independent and retain personal mobility, some programs are offering rehabilitation services. This allows seniors the convenience of staying safe and comfortable behind the wheel, despite dealing with the difficulties of medical conditions that come with age.
Example: **CARFIT**

Unused Transportation Avenues
Some programs are taking advantage of bus systems that are scarcely put to use. Certain counties use church buses for public transportation when they are not being used for their immediate church function on Sundays and Wednesday Nights. All parties involved, both the disabled adults and the churches, benefit from the transit programs. Those in need of transportation are offered a service to fulfill mobility needs, while members of the church can save the money from the service and put it towards their church.
Example: **SHIAWASSEE AREA TRANSPORTATION AGENCY EXTENDED BUS SERVICE**

Senior Pedestrian Focus Areas
Certain cities and dense urban areas are implementing zones that focus on senior pedestrian safety. The departments of transportation in these cities have identified areas with the highest concentration of senior pedestrian accidents and implemented pedestrian-focused modifications to traffic activity. Infrastructure improvements include installing or replacing pedestrian ramps, adding curb and media extensions, constructing pedestrian “refugee” islands within cross-walks, and modifying cross-walk signs to include visible countdowns and more time to cross.
Example: **NYC DIVISION OF TRANSPORTATION’S SENIOR PEDESTRIAN FOCUS AREAS (SPFAS)**

Senior Mentor Programs
Seniors who have rarely used public transportation before may be unfamiliar and uncomfortable with the process. As a result, they are likely to be reluctant to learn a new system on their own. Seniors who are experienced with public transit may volunteer to help an elderly peer understand how to use the system. Seniors-training-seniors programs have been successful in teaching the elderly how to use and become comfortable using a fixed route system.
Example: **THE RAPID SENIOR MENTOR PROGRAM**
Guide to Accommodating Older Drivers

A guide that contributes a set of strategies to safely accommodate elderly drivers. Guide books provide safety practices that benefit older drivers. These guide books lead the movement to make the road environment responsive to the needs of aging drivers.
Example: MICHIGAN’S GUIDE FOR AGING DRIVERS AND THEIR FAMILIES

Improving Street Crossing Standards

The recommended minimum width of a street crossing is four feet. Center islands also provide a safety barrier and reduce the distance that pedestrians have to travel on the road at one time without protection. Curb ramps should be used whenever crosswalks meet curbs. Tactile surfaces at the edge of street crossings can warn visually impaired pedestrians that they are about to step into the road.
Example: OLYMPIA PEDESTRIAN CROSSING IMPROVEMENT PROGRAM

Bus Stop Layout

Bus stops should be placed close to amenities, and should be ideally positioned that no passenger needs to walk more than ½ of a mile along a route. A paved and leveled surface around bus stops can greatly help all passengers. Shelters at bus stops can significantly increase the ease of using buses as a mode of transportation, especially in areas subject to extreme weather conditions. An accessible shelter will provide space for wheelchair users to maneuver. Floors should be paved and level with the surrounding area. It is important to paint clearly marked no-parking zones at bus stops and enforce the zone with traffic authorities.
Example: PROJECT FOR PUBLIC SPACES BUS SHELTER GUIDELINES

Accommodative Signage

Audible announcements are particularly helpful to people with visual impairments. Public announcement systems should be clear and loud enough to be understood by people with hearing impairments. The minimum size of letters and symbols should be 1% of the distance from which the sign is read. There should be a ratio of between 3:5 and 1:1. Most people find lower case letters easier to read.
Example: KING GEORGE BUS STATION AUDIBLE SIGNS
RECOMMENDATIONS

Individual riders may vary broadly in their opinions about what elements of their journey are most critical or important to them. Some riders are more sensitive to safety concerns, while others may be more concerned about timing. And any single unmet need or negative experience may be enough to discourage a rider from using the same transportation service in the future. Nevertheless, there are basic needs in mobility that are essential to all riders, and these can be prioritized.

1. **The need for service** – Services must exist that provide means for travelers to reach destinations during various times of the day and week.
2. **The need to know about services and how to plan a trip** – Travelers must be aware of available transportation services and understand how to use them to reach their destinations.
3. **The need for accessibility** – Travelers need to be physically able to safely access and exit services, particularly travelers who are physically disadvantaged.
4. **The need for reliability** – Transportation services must be dependable and predictable, particularly if service is to compete as a viable alternative to other modes of transportation.
5. **The need for flexibility** – Services should be able to reasonably accommodate unexpected changes in a traveler’s desired itinerary.
6. **The need for affordability** – Services must be made available at a cost that the rider can bear without excessive hardship, particularly if they are to use the service on a regular basis. Those often in greatest need of transportation assistance are often the least able to afford it.

The following recommendations have been selected with consideration of the general needs of the transportation-challenged that were ascertained through the regional mobility management survey, the findings of the focus group, a review of the germane literature, and a national best practices scan. Drawing from the public input received, these recommendations are made with this region in mind, but have application throughout the country.

CATEGORIES OF BARRIERS

1. Physical and Accessibility Factors
2. Rider Perceptions and Education
3. Policy and Service Coordination
4. Funding Structure
5. Land Use and Environmental Conditions
GOALS FOR RECOMMENDATIONS

All recommendations are made with four fundamental goals in mind:

**Efficiency** considers how well resources are being utilized to the greatest extent possible to effectively meet transportation needs without wasting time, funding or energy. Increased coordination between organizations and jurisdictions, and across programs can maximize resources. Efficiency can be increased by ensuring that there are no overlapping services.

**Effectiveness** takes into account how successful practices are in providing transportation and seeks to maximize transportation services in terms of quality, coverage, and sustainability.

**Feasibility** is the measure to which particular transportation service options can be implemented. It is important to understand the resources available (whether from local, state or federal sources; public or private) and the corresponding regulations, to find the best practices that can be implemented.

**Equity** does not mean that all areas need to be treated equally but that all areas are treated fairly or impartially. The goal for transportation services is to have a fair distribution of resources across the area served. There are often gaps and deficiencies in services that are unfair to some users, such as residents of rural areas. Providing services that meet the needs of more users would be more equitable.
Physical and Accessibility Factors

- Improve pedestrian access to and from transit stops and prioritize transit investment in corridors and where communities have (or will) invest in pedestrian infrastructure.
- Improve bicycle connections to and from stops.
- Publicize options for last mile connections (how to travel between a destination and a transit stop), such as Lyft, Uber, Centralina Volunteer Transportation Service, etc.
- Identify physical barriers that prevent access to transit stops and major destinations for seniors and disabled clients.
- Develop kiss and ride and/or passenger pick-up and drop-off points to help seniors and people with disabilities access transit (when they cannot access transit on their own).
Train service providers on how to work with seniors and disabled.

Improve accessibility of transit facilities to address needs of those with physical disabilities, such as audio-visual accommodations and considerations for communicating with individuals with visual or hearing impairments.

Develop a frequently asked questions sheet in reference to service animals.

Provide better station and stop facilities and amenities based on a hierarchy of stops, for the comfort, convenience, and safety of riders.

Ensuring accessibility both on transit vehicles and at transit locations, such as bus stops, is crucial to serving the physically or mentally disabled who cannot drive themselves and must depend upon transit. Additionally, the American Disabilities Act governs all transportation providers.

“All transportation providers must comply with the requirements of the American Disabilities Act (ADA). They should establish policy and conduct training to ensure their proper implementation... Vehicles, stations and bus stops designated as accessible must meet ADA standards.”

The challenge in meeting ADA requirements, aside from the cost of making and maintaining the improvements, often lies in properly determining ADA compliance for all of the circumstances which the disabled rider might encounter. ADA standards and requirements are complex, and their proper application in every circumstance requires expertise that is best served by trained observers viewing a particular site directly. Properly trained ADA observers can collect the data needed and run field assessment of accessibility to properly determine levels of compliance and make strategic recommendations for improvements and quality control. In some cases, it may be necessary to review additional documentation later in the office, but it is often more difficult and less accurate to assess compliance removed in the office when reviewing hand-written field notes, digital photographs, or other electronic data.
Rider Perceptions and Education

- Develop a transit rider user guide, including how to plan a trip, pay the fare, wait for the bus, and how to determine when to get off.
- Provide better transit information in multiple formats, including one location for all system maps, route schedules, stop locations, etc.
- Provide trip planning guidance and/or technology.
- Develop pocket guides that provide transportation options for patients and caregivers and distribute in rural/small town medical facilities.
- Increase general awareness of transit and mobility opportunities.
The transportation disadvantaged population is often unaware of transportation services available in the community, and how to access them. Targeted marketing efforts through various media can help reach the disadvantaged and increase awareness of existing programs, but it is critical that such outreach strategies focus on the most effective ways of reaching their primary audience. Many of those in greatest need of the information are elderly, have a low income and live alone. While a substantial percentage of that population segment is online and may regularly use email and some form of social media, many do not. Consequently, online marketing efforts may not reach a significant number of the intended audience. Traditional media such as television, radio, newspapers, inserts in utility bills and other similar strategies may be far more effective in reaching those in greatest need. Such outreach efforts can direct the audience to a phone referral line as well as a comprehensive website that would provide consumers easy access to appropriate transportation services and referrals throughout the region. Additionally, partnering efforts can be made with local community transportation providers to conduct outreach and education programs to target populations to increase awareness of transportation options available to them.

“Better publicity about public transportation would greatly help. Making individuals aware that most public libraries have computers with internet access and even free classes to learn how to use the internet would make information and schedules more accessible. Public transportation agencies might be pressed to develop outreach programs to disability-specific agencies to increase overall awareness of how public transportation systems can be used.”^xvi

“Another important training element is transit user training. This can help individuals, particularly those who are transportation disadvantaged, understand the transit systems in their communities. The term "travel training" specifically refers to training individuals (particularly those with cognitive disorders) on how to access and use public transportation. There are other forms of transit user training. Orientation and Mobility training, for example, specifically helps people with vision impairments travel more independently. Peer-to-peer training and simple transit system orientation sessions can help introduce transit services to new users.”^xvii
Providing services that cross political boundaries requires coordination. Start with identifying the most problematic exchanges between systems (CATS and MTC, CATS and ICATS, etc.) and develop policies for better coordination.

- Review applications for service and provide recommendations on ways to simplify and coordinate with multiple agencies.
- Identify eligibility loopholes and provide recommendations for alternative transport. Communicate these services to seniors and disabled populations.

In recent years, many transportation providers have recognized a need to take on a broader role in transportation coordination within the communities they serve, and provide a more diverse variety of transportation services. In the process, partnerships have evolved, involving both public and private provider agencies, to coordinate this wider range of mobility options. The result of successful mobility management is greater efficiency in the use of transportation resources, emphasizing multimodal rather than single-mode solutions. Combined with strategic marketing to attract and inform customers, these efficiencies create cost savings and increased service effectiveness. Mobility Management replaces the business strategy of exclusively managing owned assets with a strategy that operates through alliances among multiple transportation providers.
“Mobility management involves creating partnerships with transportation providers in a community or region to enhance travel options, and then developing means to effectively communicate those options to the public. With this approach, resources can be coordinated efficiently, customers are able to make better decisions, and the focus is on enhancing customer service.”

A mobility manager may be defined as:

“...a transportation organization serving the general public that responds to and influences the demands of the market by undertaking actions and supportive strategies, directly or in collaboration with others, to provide a full range of options to the single-occupant automobile... [providing] a framework for transportation agencies to embrace a multimodal philosophy.”

**Components of a Good Mobility Management Program**

- **Multi-agency partnerships that can reduce costs through efficient and effective coordination; potential partners might include social service agencies, senior programs, non-emergency medical providers and taxi companies**
- **A customer-driven, market-based approach to transportation delivery that offers a variety of individualized travel options**
- **Greater use of information technology systems in real time**
- **The development and implementation of one-stop travel information and trip planning systems**
- **Traffic management strategies and coordination of public transportation with infrastructure development and land use policies**

“Mobility Management is a strategic approach to service coordination and customer service that is becoming a worldwide trend in the public transportation sector. The expectation is that, over time, transit agencies should move beyond the traditional role of operators of fixed-route service and assume a broader role in coordinating the full range of mobility services in their communities.”

Strategies employed through mobility management can classify as operational, technological, informational, or land use based.

**Operational strategies** typically involve nontraditional methods of service delivery, which can include programs such as ridesharing, carpooling, vanpooling, subscription buses, coordination of private shuttles, and volunteer or community-based transportation services.
**Technological strategies** increase travel options through the utilization of evolving technical advancements. These strategies usually take the form of telecommuting centers, real-time rideshare matching or multi-provider trip reservation and integrated billing.

- Telecommuting centers assemble equipment needed for telecommuting in a central location where it can be shared by individuals or small businesses on a rental basis. Transit hubs can be an ideal setting for telecommuting centers, where the centers can encourage new ridership.

- Real-time ridesharing combines spontaneity with the organizational elements of conventional carpooling. Riders search a database of prequalified participants online. The database can be maintained regionally, along one particular corridor, or within one or more adjacent businesses. Participants arrange the trips directly, not through a third-party ride matching agency. Occasional trips for work, shopping, or medical purposes can be arranged as needed.

  “Technology can be a very important asset in mobility management... Trip dispatch and scheduling systems can contain everything staff needs to set up rides and can also provide drivers with detailed manifests. Web sites can be useful technology tools to provide information and services to individuals. Websites may be the first point of contact for people, and it is important that they are user-friendly. A website can generate a number of trip requests and volunteer drivers.”

  “Information technology systems have advanced to the point where communities are now able to plan and match requests with real-time, state-of-the-art call center systems to facilitate mobility management.”

**Informational/Programmatic functions** can help make those in need more aware of the choices available to them. When customers contact a transit agency by phone or online, a mobility manager can provide them with an array of options that meet their specific needs and assist them with trip planning, instead of offering information that is strictly about one choice. Mobility Managers can provide rideshare information and serve as a one-stop center for all regional systems, both public and private. Partnerships with the private sector can be made for joint marketing.

**Land Use** decisions can be steered toward greater transit ridership when mobility managers take an active role in planning for housing and commercial development around a transit hub. With their help, transportation strategies can be integrated with community-wide planning in order to influence land use and zoning policy.
Encourage federal and state grant sources to offer funding that allows flexibility for spending on operations and capital budget items – this would allow transit spending to be localized and client based.

Consider applying for grants or NCDOT funds as a region or with multiple jurisdictions/agencies, to support improvements that would benefit multiple agencies.

While federal and state funding can change and fluctuate, local governments can take positive incremental steps to improve their local and regional transportation services. When local decision makers understand and are convinced of the merits of mobility management approaches, and have realistic expectations about what transit can achieve, they can become willing partners in the provision of service. Such partnership between local government and mobility managers can take the form of financial assistance, operations, or sharing facilities.

Local governments can cooperate with transit providers on pooling funding to try out innovative ideas, and work together with transit providers in seeking grant funds. In many U.S. states, impact fees on development, or special sales taxes, are used by local jurisdictions to direct additional funding for mobility management. Sales taxes can be used, for example, to create paratransit-oriented trust funds, or to support general transit services.
Develop model ordinance language and/or land use plan policies for local governments to provide guidance on transit-related issues, such as street and sidewalk connectivity, development densities and mixed-use.

Create a checklist of critical elements to consider when locating destinations that would invite senior and disabled clients, such as senior centers, social services, government buildings, etc., to support user accessibility.

Land use patterns influence transportation needs more than any other factor. The greater the distances between destinations, the more need there is for transportation service. But most of the time, where those distances are greatest, development density is lowest and transit service is less readily available.

Aside from changing development patterns to create denser communities that offer more services and destinations, overcoming the barriers to transportation for people who choose to live in less dense, rural areas require increasing the transit choices they have available to them and developing transportation options that are sustainable in low-density geographies.
Rural areas that cannot support many fixed route choices are better served by more flexible on-call services that can access destinations selected by the rider or riders. The service may be shared by multiple individuals, particularly if they make regularly scheduled trips, such as a ride to a central area in town, or other specific destinations, like a medical center or church. Vanpools, carpools or paratransit buses may all serve this function, each offering different advantages. But those in need of individual service to specific destinations at specific times may require a much more flexible service and one that is reliable and can be scheduled by the rider when needed. While a taxi service or Uber ride could satisfy those requirements, it is not a very affordable service for many to use on a regular basis.

One solution available in the Greater Charlotte Area (the Centralina Region) is the regional Volunteer Transportation Service (VTS). This service provides rides to older adults and people with disabilities in rural/small urban areas. Centralina VTS is a regional model of service delivery dependent on the ongoing recruitment, screening, training and certification of volunteers who use their personal vehicles to provide transportation to medical, grocery, social and recreational settings. The service is designed to address unmet needs in the rural and small urban areas of the region by providing trips that are often unfeasible for the public providers to accomplish, particularly as the area served by VTS crosses multiple jurisdictional boundaries.

“Volunteers are an important part of a comprehensive transportation network. Increased funding for volunteer driver programs could lead to an increase in service coverage, especially for those areas not served by mass transit. In addition, implementing volunteer driver mileage reimbursement programs could attract more volunteers. One impediment to volunteer driver recruitment is the reimbursement for mileage, which requires the use of the federal 1099 tax form, and not all volunteers may want to work with those.”xxiv

“There are a number of volunteer driver programs in the state that, in some cases, may be an individual’s only option for access outside of their residence... Volunteer drivers help fill gaps in service because they are able to cross jurisdictional boundaries. Volunteer drivers can provide more than just transportation, they can also provide well checks and social interaction. There are many volunteers who are doing good work in providing care to those they transport.”xxv

Efforts can also be made to increase fixed-route ridership in rural areas through targeted marketing and incentive programs that encourage potential riders to take the first step in trying out a service that they have never used.

“More widespread use of public transportation in rural areas would generate revenue and possibly lead to more routes. The increased revenue would help minimize fare increases, thereby making public transportation more affordable to many.”xxvi

Local government can make a significantly positive impact on the quality of alternative local transportation options through enacting local land use ordinance designed to make their communities more walkable and transit-friendly. A “walkable” land use ordinance can incorporate many different strategies for pedestrian-oriented growth.
Elements of **Walkable Land Use Ordinance**
from Transit-Oriented Design and Neo-traditional planning approaches.

- Zone for compact development around transit hubs.
- Require street layouts that facilitate fast service by buses, taxis, and other mass transportation vehicles.
- Reduce parking requirements and set parking maximums where transit is a viable alternative to driving.
- Require building configurations and site plans that allow residents and workers easy access to transit.
- Include connectivity standards that limit cul-de-sacs and provide clear and quantifiable measures for adequate street connections.
- Require businesses, and institutions to form partnerships with transportation organizations to meet congestion or air quality goals.
- Require that developers of large complexes, such as shopping malls, provide access to transit and transit facilities.
- Plan for pedestrian facilities that connect buildings when new development occurs or rehabilitation projects are undertaken.
- Identify appropriate sites for commuter park-and-ride lots.


U.S. Census Bureau, *TIGER/Line Shapefiles*, 2014

U.S. Census Bureau, *TIGER/Line Shapefiles*, 2014


Dickerson, et al., Transportation and Aging: A Research Agenda for Advancing Safe Mobility (The Gerontologist, 2007) 578-590 Retrieved from https://www.researchgate.net/publication/5858122_Transportation_and_Aging_A_Research_Agenda_for_Advancing_Safe_Mobility


xv National Council on Disability, pg. 311-16

xvi McLaren, pg. 4

xvii Cronin & Gross, pg. 10

xviii American Public Transportation Association, pg. 2

xix Transportation Research Board, pg. 15

xx American Public Transportation Association, pg. 4

xxi American Public Transportation Association, pg. 4

xxii Wisconsin Department of Transportation, pg. 34

xxiii American Public Transportation Association, pg. 5

xxiv Wisconsin Department of Transportation, pg. 25

xxv Transportation Research Board, pg. 26

xxvi McLaren, pg. 4

xxvii Transportation Research Board, pg. 61