Transportation Options for People who are Blind or have Low Vision

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The importance of transportation

- Transportation is essential for autonomy, independence, health, and quality of life (Dickerson, et al. 2007)
- Transportation provides us with the ability to engage in various activities (working, shopping, socializing) and fulfillment of roles
- Transportation enables us to engage in our favored activities and meaningfully connect our lives to our world (Gourley 2002)
Compensatory strategies for decreased community mobility = transportation options

- What options are available for our clients?
  - Public transportation
  - Paratransit services
  - Specialized transportation
  - Commercial and human service transportation
  - Walking & other forms of transportation
  - Rides with others

Types & Levels of service

- Type of services
  - Fixed route
  - Flexible route
  - Demand-response

- Levels of service
  - Curb-to-curb
  - Door-to-door
  - Door-through-door
  - Escort services
Trips & trip chaining

- A trip
  - Considered one-way travel
    - Home to grocery store = 1 trip
    - Home to grocery store, grocery store to home = 2 trips
    - Home to grocery store to bank to home = 3 trips
- Trip chaining
  - Any travel involving 3 or more trips
  - Ability to chain trips dependent on mode of travel

Public transportation

- Typically includes buses, but may also include rail, shuttles, etc
- Fixed route, set schedule, curb-to-curb service
- Low cost
- Often present in urban and suburban areas; rare in rural areas
  - 65% have limited or no access (Freeman 2006)
Functional abilities required for public transportation use

- Physical function
  - Public transportation has a walking component at each end of the trip
  - Waiting at the bus stop
  - Climbing steps
- Cognitive abilities
  - Route planning, transfers
- Vision
  - Reading bus schedules, recognizing stops
- Psychosocial
  - Interactions with operator, other passengers
  - Dealing with unexpected situations

Barriers to public transit use

- Real: sidewalks, walking distance, bus stops/shelters, features of the vehicle, limited destinations
- Perceived: dirty, unsafe, untimely, confusing, unreliable, costly
- Personal: decreased vision, cognition, physical functioning, lack of confidence
Barriers to the use of public transportation to people who are visually impaired

- Route, timetable, fare, and customer service brochures that are available only in print format
- Maps, print or graphic information on signs
- Bus stop locations:
  - Before or beyond the corner, mid-block
- Ticket vending machines

ADA requires removal of barriers to those with visual impairment

- Providing large-print, high-contrast, and non-glare informational signs
- Placing braille and tactile information regarding available service at consistent locations
- Installing a tactile domed high-contrast warning surface along platform edges.
- Making stop announcements inside transit vehicles at main points along the route.
- Providing external speakers that announce vehicle identification information.
- Providing ticket vending machines with braille and large-print markings, or audible output devices.
- Training transit personnel to meet the specific needs of persons with visual impairments
Promoting public transportation use

- Travel training
  - Provides one-on-one, individualized travel instruction in travel skills
  - Includes the trainer riding with the client while using the system
  - Increase user confidence and ability
  - Travel trainers typically work in the community and are employed by non-profits, for PROFITS, transportation agencies, and schools
  - Travel trainers may be available through public transportation agencies, local aging/human service organizations

Association of Travel Instruction: http://www.travelinstruction.org/

- Locus of control: Independence (versus depending on family and friends)
- User-friendly services
  - Ergonomic vehicles
  - Operator sensitivity
  - Bus buddies
  - Technology
Special Transportation Services (STS)

- Americans with Disabilities Act (ADA) requires paratransit services be provided for people who cannot use public transportation.
- Eligibility requirements
  - Depends on an individual’s inability to use fixed-route services versus the presence of a disability.
- Proximity to fixed route system.
- Typically use vans and/or w/c accessible buses for non-medical emergency trips.
- Shared rides.
- Flexible route, door-to-door service.

MDC STS

- Service to/from destinations ¾ mile from fixed route service.
- Uses privately contracted sedans and vans, some equipped with w/c lifts.
- Service available 24/7.
- Reservations made 24 hours in advance.
- No trip restriction.
- $3/one-way trip.
- 1.5 million rides in 2009-10.
- 2011 Budget: $37 M.
- 2011 Revenue: $4 M.
Technology to enhance accessibility for people with visual impairments

- Computer screen interfaces read aloud information presented in video monitors
- Ticket machines that include speech output
- Information kiosks with tactile maps that can “talk” about places of interest and destinations
- Route planning software available on transit Websites
- GPS technology monitors location, triggers stop announcements
- Infrared and radio transmitters broadcast virtual messages that can be “heard” by voice output receivers

Specialized transportation

- Hospital-based transportation
- Business shuttles
- Senior center buses
- Adult day services
- Retirement community shuttles
Commercial transportation

- Taxis
  - Most similar mode of transportation to the private car
  - Where you want to go, when you want to go there
  - Real and perceived barriers to usage:
    - Wait times, reliability, punctuality, driver issues, unfamiliarity, not knowing services exist, cost, maintenance of vehicles, vehicle design, assistance with packages, mobility devices
- Facilitators:
  - High satisfaction rate (Kostyniuk 2003), flexibility, assistance with packages, mobility devices

Rides from others

- Most common mode of transportation after driving (Davey 2007)
- Family
  - Spouse, daughters, daughter-in-laws (Taylor and Tripodes 2001)
- Friends
- Paid & Volunteer driver programs (Supplemental Transportation Programs (STPs))
  - Commonly operated by faith-based and non-profit organizations
- Various models of volunteer driver programs
- Volunteer service organizations
- Red Cross, American Cancer Society
Walking & other

- Walking
  - Two walking trips are required for each transit trip
  - Requires physical ability and stamina
  - Most walking occurs in urban areas where sidewalks are available and destinations are close together
  - Risk of injury/death greater than as a driver
- Bicycling
- Golf carts
Connecting clients with transportation

- Considerations for transportation options
  - Eligibility
  - Affordability
  - Accessibility
- Mobility managers
  - Guide clients through transportation resources and services
  - Assist consumers in choosing the best options to meet their travel needs

Questions to ask of transportation options programs

- Program questions
  - What hours and days does the program run?
  - What are the service areas?
  - Are there limits to the number of rides, destinations?
  - Is assistance available for persons with packages, mobility devices?
  - Is assistance available for persons with visual, cognitive, or physical disabilities?
  - Is pre-registration required?

Source: Transportation Options for Older Adults

Source: The Hartford’s “Getting There Worksheet”