Aging in Rural and Small Urban Environments: Are Travel Needs Being Met?

Dr. Jill Hough, Director
Small Urban & Rural Transit Center
Upper Great Plains Transportation Institute
North Dakota State University

Seminar for the University of Vermont – Transportation Research Center

It was once said that the moral test of government is how that government treats those who are in the dawn of life, the children; those who are in the twilight of life, the elderly; and those who are in the shadows of life, the sick, the needy and the handicapped.

- Hubert H. Humphrey
Purpose

- To better understand the desired mobility of the elderly women in rural and small urban locations.

Outline

- Introduction
- Methodology
- Results
- Conclusions
- Policy Actions
Introduction

- Increasing attention to elderly issues.
- Increasing attention to mobility of elderly women.
- Little attention to elderly mobility in rural areas.
- Shortcoming in literature
  - Lack of theory for elderly mobility
  - NHTS – not representative of rural!

Ecological Model

- Individual
  - Self-efficacy
  - Mental ability
  - Physical ability / limitation

- Social Environment
  - Family
  - Friends
  - Neighbors

- Physical Environment
  - Accessibility
  - Services

- Relative Desired Mobility
Methodology

- Telephone Survey [Administered by NASS]
  - Questions [appropriate indexes]
  - Trip Types
  - Responses, 1021
    - Small Urban – 512
    - Rural – 509
- Ordered Probit Models

Variables

- Travel Behavior (Realized Travel Demand – RTD)
- Desire for Travel (Relative Desired Mobility – RDM)
- Individual level
- Social environment
- Physical environment
- Socio-demographics
Individual-Level Factors Measurement

- Existing Indexes
  - Self-Efficacy
  - Cognitive/Mental Ability
  - Physical Limitations

Social Environment Type Measurement

- Spouse
- Relative
- Friend
- Neighbor
- Distance the women live from previously mentioned groups,
- Strength of these relationships, and
- Ability of these people to provide rides
- Club membership
Physical Environment Measurement

- Rural – population less than 6,800
- Small Urban – population greater than 6,800
- Availability of transit

Nine Trip Types

- Doctor
- Store
- Pharmacy
- Hair
- Eat out
- Visit friend
- No place
- Exercise
- Church
Trip Type Measurement

- Travel behavior was measured on a six-point ordinal response scale to the question
- “How often do you make trips to” nine types of locations such as doctor:
  - “Never”,
  - “Less than once per month”,
  - “Once or twice a month”,
  - “About once every two weeks”,
  - “About once a week”, and
  - “Two or more times a week”.

Relative Desired Mobility Measurement

- “Would you like to travel more or less than you currently are to…..”
  - “Much less”,
  - “Less”,
  - “About the same”,
  - “More”, and
  - “Much More”.
Travel behavior = f (I, S, P, D)

Where:

I = individual factors (self-efficacy, etc.)
S = social environment (family, etc.),
P = physical environment (transit, etc.),
D = demographics (income, education, etc.)

### Trip Types by Percentage

<table>
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<th>Trip Type</th>
<th>N</th>
<th>Never</th>
<th>Less than once per month</th>
<th>Once or twice a month</th>
<th>About once every two weeks</th>
<th>About once a week</th>
<th>Two or more times a week</th>
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</table>
Individual Level Findings

- Women with higher self-efficacy tend to travel more frequently for following trips:
  - Eat out, visit friends, exercise place, no particular destination, doctor, hair salon.

- Women with greater cognitive abilities tend to have a higher trip frequency.
- Women with greater physical limitations tend to travel less frequently for some subsistence trips.

Social Environment Findings

- Social environment is important for women’s mobility!
- Being a member of clubs has a positive association with seven trip types:
  - Eating out, friend or family, no particular place, exercise place, church or civic, store, and hair salon.
- Women with spouse, relatives, or neighbors that can provide rides make more trips.
Physical Environment Findings

- Women who live in rural areas tend to travel less for trips:
  - eat out, visit friend or family, store, hair salon, and exercise place.
- Women who live in rural areas tend to make more trips with no particular destination.
- Women who have to travel farther to their preferred destinations tend to make fewer trips to:
  - the store, pharmacy, and church.

Demographics

- Women with higher incomes travel more frequently for trips to:
  - Eat out, visit friend or family, church, hair salon, and exercise place.
- Women with higher education tend to make more trips to:
  - Doctor, store, and exercise place.
Individual–Level Policy Actions

- Learning programs;
- Exercise programs (in-home and out-of-home);
- Crossword puzzles, etc. distributed to seniors;
- More volunteer programs to assist the aging with home-based tasks;
- Reduce taxes for the elderly which would provide more money for travel.

Social Environment Policy Actions

- Internet service (computers) to encourage communication with others;
- Increased efforts to involve seniors in Senior Centers;
- Encourage clubs to reach out to seniors for membership;
- Volunteer programs;
- Unity in community programs.
Physical Environment Policy Action

- Internet service (and computers) for women in rural and small urban locations;
- Transit or other mobility service once a week to certain locations e.g., store, doctor, etc.;
- Improve store contents/services to include multiple purposes (e.g., grocery, pharmacy, etc.)

What Can We Do? What Can You Do?