Introduction

- The increasing need for veteran transportation
  - Aging veterans as well as those returning from Iraq and Afghanistan
- 30 percent live in rural areas
- Many travel long distances for medical care
- Rural veterans in poorer health than urban veterans
- Many veterans require mobility assistance for all activities
Objectives

- Identify veterans living in rural North Dakota, Minnesota, and Montana with mobility needs
- Quantify the cost of medical transportation to VA health care centers
- Determine the feasibility of a coordination effort between rural public transit agencies and VA health care centers

Related Literature

National Perspective

- Approximately 22 million veterans nationwide
- Mostly male and older than non-veteran population
- Almost 30% reside in rural areas
- 41% of veterans enrolled in VA health care system come from rural areas
- VA beneficiary travel expenses have increased from $373 million in 2008 to $861 million in 2012
Related Literature

- Veterans Transportation and Community Living (VTCLI) grants
- North Dakota Post War Trust Fund created in 1996
- Fargo VA medical center using more telemedicine
- Minnesota Council of Transportation Access (MCOTA) must include the commissioner of veterans’ affairs

Local Initiatives

Veteran Mobility Survey

- Designed identical electronic and paper surveys
- Online survey distributed to Veterans Service Officers (VSO) and Veterans Affairs representatives in MN, MT, and ND
- Paper surveys distributed primarily to veterans at Stand Down events that provide services to homeless veterans

- 140 viable surveys received (107 electronic and 33 paper)
- Received numerous unusable paper surveys
- Several veterans were apprehensive and refused to complete surveys
Veteran Mobility Survey

• Profile of Respondents (91% Male)

Veteran Mobility Survey

• Mobility and Travel Patterns
Veteran Mobility Survey

• Nature of Disability

<table>
<thead>
<tr>
<th>Nature of Disability</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility Issues</td>
<td>40%</td>
</tr>
<tr>
<td>Hearing Impaired</td>
<td>31%</td>
</tr>
<tr>
<td>Mental Health</td>
<td>20%</td>
</tr>
<tr>
<td>Sight Impaired</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>15%</td>
</tr>
</tbody>
</table>

Veteran Mobility Survey

• Travel Mode to Veteran Medical Appointments

<table>
<thead>
<tr>
<th>Travel Mode</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>I drive my own vehicle</td>
<td>63%</td>
</tr>
<tr>
<td>Veterans' transportation</td>
<td>17%</td>
</tr>
<tr>
<td>Passenger by private vehicle</td>
<td>7%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>6%</td>
</tr>
</tbody>
</table>
Veteran Mobility Survey

- Travel Distance (One-Way) to Veteran Medical Services

<table>
<thead>
<tr>
<th>Travel Distance</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15 miles</td>
<td>21%</td>
</tr>
<tr>
<td>16-30 miles</td>
<td>10%</td>
</tr>
<tr>
<td>31-45 miles</td>
<td>18%</td>
</tr>
<tr>
<td>46-60 miles</td>
<td>16%</td>
</tr>
<tr>
<td>61-75 miles</td>
<td>14%</td>
</tr>
<tr>
<td>76-90 miles</td>
<td>3%</td>
</tr>
<tr>
<td>91+ miles</td>
<td>17%</td>
</tr>
</tbody>
</table>

Veteran Mobility Survey

"What increased transportation services would improve your quality of life?"

- More rural transportation services
- More frequent service
- Transit services that could cross county lines
- Timelier Amtrak rail service to Fargo
- More handicap accessible vehicles
Veteran Mobility Simulations

- Focused on the feasibility of transit agencies coordinating with VA health care centers for veteran medical transportation
- Cost-effective for public transit?
- Each veteran trip is unique and based on personal preferences
- @Risk simulations used to account for uncertainty in travel behaviors and costs

Veteran Mobility Simulations

**Essential Simulation Variables**

<table>
<thead>
<tr>
<th>State</th>
<th>Operating Expense/mile</th>
<th>Fare Recovery</th>
<th>VA Travel Reimbursement</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN</td>
<td>$3.46</td>
<td>16.1%</td>
<td>41.5 cents/mile</td>
</tr>
<tr>
<td>MT</td>
<td>$2.91</td>
<td>6.7%</td>
<td>41.5 cents/mile</td>
</tr>
<tr>
<td>ND</td>
<td>$3.28</td>
<td>9.4%</td>
<td>41.5 cents/mile</td>
</tr>
</tbody>
</table>

Rural National Transit Database (2011)
Veteran Mobility Simulations

- VA Travel Reimbursement Requirements
  - They have a service-connected (SC) disability rating of 30% or more, or
  - They are traveling for treatment of a SC condition, or
  - They receive a VA pension, or
  - Their income does not exceed the maximum annual VA pension rate, or
  - They are traveling for a scheduled compensation or pension examination.

Department of Veteran Affairs (2013)

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@Risk Example, ND Fare Recovery for 90-mile round trip

<table>
<thead>
<tr>
<th>Probability</th>
<th>ND Fare Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>0</td>
</tr>
<tr>
<td>0.005</td>
<td>0.000</td>
</tr>
<tr>
<td>0.010</td>
<td>0.005</td>
</tr>
<tr>
<td>0.015</td>
<td>0.010</td>
</tr>
<tr>
<td>0.020</td>
<td>0.015</td>
</tr>
<tr>
<td>0.025</td>
<td>0.020</td>
</tr>
<tr>
<td>0.030</td>
<td>0.025</td>
</tr>
<tr>
<td>0.035</td>
<td>0.030</td>
</tr>
</tbody>
</table>

- @Risk Variables
  - Transit operating expense/mile
    RiskExtValue(3.28,1.55)
  - Transit fare recovery rates
    RiskNormal (0.094, 0.028)
  - $297 Total Trip Cost
  - 9.5% Fare Recovery Rate
Veteran Mobility Simulations

- State Level Simulations, 90-mile round trip

![Graph showing VA Reimbursement Rate vs. Passengers for different states (MN, MT, ND)]

**Legend**
- Missouri
- Montana
- North Dakota
- South Dakota

- 30 Miles
- 60 Miles
- 100 Miles

- Fargo
- St. Cloud
- Sioux Falls

![Map showing routes and distances between states]
Veteran Mobility Simulations

- Fargo, ND, veteran health care simulations

Key Findings

Transit agencies can increase ridership and VA health care centers can lower beneficiary travel costs if they coordinate services.

This is an optimal time to talk about strategies for rural transit to transition aging veterans from personal vehicles to public transit.

Results can serve as a great planning tool for rural transit agencies.
Thank You

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