

# MOUNTAIN-PLAINS CONSORTIUM

MPC 14-277 | Andrea Huseth

## Anticipatory Guidance Provision Related to Driving Safety/ Cessation for Older Drivers: A Rural-Urban Comparison



A University Transportation Center sponsored by the U.S. Department of Transportation serving the Mountain-Plains Region. Consortium members:

Colorado State University  
North Dakota State University  
South Dakota State University

University of Colorado Denver  
University of Denver  
University of Utah

Utah State University  
University of Wyoming

**Anticipatory Guidance Provision Related to Driving  
Safety/Cessation for Older Drivers:  
A Rural-Urban Comparison**

Andrea Huseth

Rural Transportation Safety and Security Center  
Upper Great Plains Transportation Institute  
and  
Master of Public Health Program  
North Dakota State University  
Fargo, North Dakota

December 2014

## **Disclaimer**

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, sex, sexual orientation, status as a U.S. veteran, race or religion. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708.

## **ABSTRACT**

Older drivers are overrepresented in motor vehicle crash fatalities. As the U.S. population continues to age, this problem will grow. Health care providers (HCPs) are in a position to provide their older patients with education which may prevent further motor vehicle fatalities. Rural older adults are more likely to equate driving with mobility and quality of life due to a lack of alternative transportation options, often leading them to continue driving longer. This study sought to compare the frequency of mobility counseling provision among rural and urban HCPs to older adults, in addition to determining barriers to providing this information. Surveys were administered to HCPs and older adults in rural and urban areas in the upper Midwest. Older adults in general received little counseling from their HCPs in regard to driving safety or driving cessation, with a majority of respondents having never received any information on this topic. Frequency of mobility counseling provision related to driving cessation as offered by HCPs in general increased with patient age. Rural HCPs were less likely than their urban counterparts to provide this type of information to their patients. One of the greatest barriers HCPs listed to providing mobility counseling was the lack of time during a patient visit. Rural HCPs were also less likely than urban HCPs to feel there are adequate resources for older drivers in their communities, and were less likely to know where to refer their patients in need of testing for their fitness for continued driving.

**TABLE OF CONTENTS**

- 1. INTRODUCTION..... 1**
- 2. METHODOLOGY ..... 2**
  - 2.1 Older Adult Survey ..... 2
  - 2.2 Health Care Provider Survey ..... 4
- 3. RESULTS ..... 6**
  - 3.1 Older Adult Survey Results ..... 6
    - 3.1.1 Demographics ..... 6
    - 3.1.2 Respondents Who Do Not Currently Drive ..... 8
    - 3.1.3 Respondents Who Currently Drive ..... 9
  - 3.2 Health Care Provider Survey Results ..... 10
    - 3.2.1 Demographics ..... 10
    - 3.2.2 HCP Survey Responses..... 12
- 4. SUMMARY AND CONCLUSIONS ..... 16**
  - 4.1 Findings ..... 16
  - 4.2 Study Limitations..... 16
  - 4.3 Future Research ..... 17
- APPENDIX A: OLDER ADULT SURVEY ..... 19**
- APPENDIX B: HEALTH CARE PROVIDER SURVEY ..... 23**

## LIST OF TABLES

Table 2.1	Rural Counties Included in Older Adult Survey .....	4
Table 2.2	County Rural-Urban Continuum Codes .....	5
Table 3.1	Older Adult Respondent Demographics.....	7
Table 3.2	Current Driving Status.....	7
Table 3.3	Reasons for Discontinuing Driving .....	8
Table 3.4	HCP Spoke About Driving Issues Prior to Stopping Driving .....	8
Table 3.5	Driving Frequency.....	9
Table 3.6	Description of Driving Abilities.....	9
Table 3.7	Confidence in Driving Abilities .....	9
Table 3.8	HCP Provided Information about Safe Driving Habits .....	10
Table 3.9	HCP Mentioned Driving Limitation.....	10
Table 3.10	Health Care Provider Demographics.....	11
Table 3.11	Frequency of Driving Safety/Driving Fitness Anticipatory Guidance by Patient Age .....	12
Table 3.12	Barriers to Providing Counseling to Older Adults Regarding Driving Issues.....	14
Table 3.13	Ever Communicated to Older Driver to Limit or Discontinue Driving.....	14
Table 3.14	Level of Agreement with Statements Related to Driving Counseling Provision .....	15

## LIST OF FIGURES

Figure 2.1	Older Driver and Health Care Provider Survey States .....	3
Figure 3.1	Frequently or Always Discuss Driving Safety/Driving Fitness by Patient Age .....	13

# 1. INTRODUCTION

Older drivers are overrepresented in driver fatalities, total traffic fatalities, and occupant fatalities (NHTSA 2011, U.S. Census Bureau 2011). This problem is projected to get worse as the U.S. population continues to age and as the population aged 65 and older continues to make up a larger proportion of the population. The population aged 65 and older is projected to increase by as much as 178% by 2030, with fatal crash involvements by this population ballooning by approximately 155% in the same time period (Lyman et al. 2002).

Health care providers (HCPs) are in a position to provide their older patients with anticipatory guidance which may prevent further motor vehicle fatalities. Although mostly used with children and their parents, anticipatory guidance has been found to be a critical but underused strategy, especially for adults (Ballesteros & Gielen 2010). Research has shown that injury prevention counseling or anticipatory guidance by HCPs is associated with safer behaviors (Chen et al. 2007, Posner et al. 2004).

Considerable research has been conducted on identifying and screening for problem older drivers (Korner-Bitensky et al. 2010, Jang et al. 2007, Marshall & Gilbert 1999, Bogner et al. 2004, Kakaiya et al. 2000), but little research has been conducted on solely providing anticipatory guidance on safe driving habits. It is unknown how frequently HCPs counsel their patients on safe driving habits, how early they begin this anticipatory guidance, or their perceptions and barriers regarding providing this guidance.

The goal of this project is to identify HCP attitudes, perceptions, and barriers to providing anticipatory guidance regarding driving-related issues, including but not limited to driving cessation, to older drivers. In addition, researchers would like to determine the frequency of HCP counseling regarding safe driving habits being provided to patients starting at age 65 by surveying not only HCPs but older adults as well. This study also seeks to determine if differences exist between rural and urban HCPs in regard to the frequency with which they are providing this counseling.

## **2. METHODOLOGY**

Older adult and health care provider surveys were developed to determine:

1. The extent to which health care providers are providing any anticipatory guidance regarding driving safety;
2. Barriers to discussing driving safety issues or driving cessation during office visits;
3. If there are differences in anticipatory counseling practices regarding driving safety issues or driving cessation between rural and urban providers;

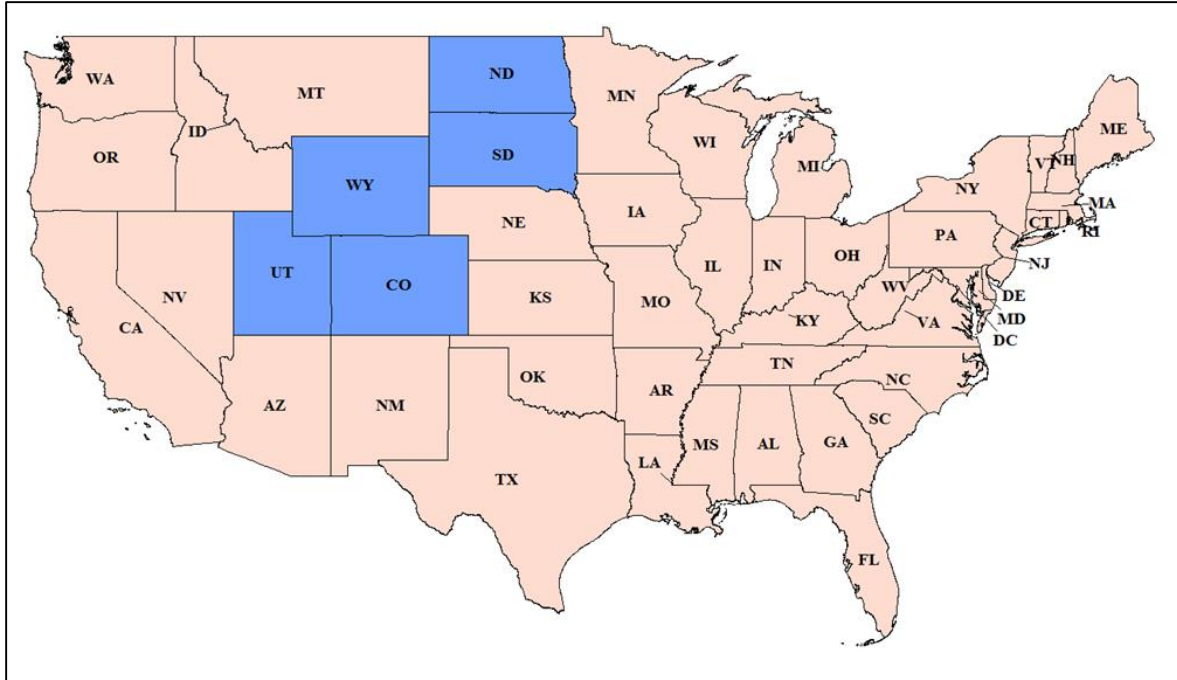
Both the older adult and health care provider surveys were created based on a review of the literature, findings from previous surveys, and feedback from people, including physicians, who work extensively with older adults and driving safety issues.

### **2.1 Older Adult Survey**

The older adult survey can be found in Appendix A and includes questions about current driving status, reasons for not currently driving, whether a health care provider had spoken with them regarding driving issues prior to stopping driving if not currently driving, frequency of driving if currently driving, driving confidence if currently driving, and whether a health care provider has ever given information related to safe driving habits, or they have ever been told by their health care provider that they should limit their driving. In addition, demographic information was collected, including whether or not they had been involved in a vehicle crash, description of health, age, gender, marital status, current living arrangements, and highest level of education.

For the older adult survey, a random list of addresses of households which were likely to have adults aged 65 or older was obtained from USA Data. The sample was stratified by rurality, with the areas surveyed including urban and rural counties in the following states: North Dakota, South Dakota, Utah, Colorado, and Wyoming (Figure 2.1). These states, with the addition of Nevada, make up the National Highway Traffic Safety Administration's Region 8.





**Figure 2.1** Older Driver and Health Care Provider Survey States

Urban areas were defined as those zip codes contained in the most urban city within each state. These zip codes included those for: Fargo, ND; Sioux Falls, SD; Denver, CO, Cheyenne, WY, and Salt Lake City, UT. A random list of 5,000 household addresses from these zip codes which were likely to have adults aged 65 or older was purchased from USA Data. From the list of 5,000 urban households, 1,300 were randomly selected for the survey.

The rural areas were defined by the U.S. Department of Agriculture Economic Research Service Rural-Urban Continuum Codes. Rural-Urban Continuum Codes provide a classification structure that classifies counties by population size, degree of urbanization, and adjacency to a metro area or areas. According to the Economic Research Service (ERS), the codes allow researchers who work with county level data to break the data into a more sophisticated classification than just metropolitan or non-metropolitan counties, which is extremely useful for the analysis of data in those nonmetro areas that are related to degree of rurality, as in this study. For each state, a random selection of five counties with code classification 9 according to the ERS Rural-Urban Continuum Codes were selected (Table 2.1). Wyoming has only four counties with a code classification of 9, so only these four counties from Wyoming were selected. Code classification 9 includes those counties that are completely rural or less than 2,500 urban population, and not adjacent to a metro area. The most rural counties were selected based on the assumption that households located in these counties would be more likely to seek routine primary care services (i.e. well child visits/check-ups) locally, and not travel to a large metro area for these services. A random list of 5,000 household addresses from these counties which were most likely to have children aged 12 or younger was also purchased from USA Data. From the list of 7,500 rural households, 1,300 were randomly selected for the survey.

**Table 2.1** Rural Counties Included in Older Adult Survey

State	County	State	County	State	County
North Dakota	Bottineau	South Dakota	Bon Homme	Wyoming	Big Horn
	Dunn		Buffalo		Crock
	Griggs		Dewey		Niobrara
	LaMoure		Stanley		Sublette
	Renville		Sully		
Colorado	Cheyenne	Utah	Beaver		
	Costilla		Emery		
	Phillips		Garfield		
	San Juan		Piute		
	Washington		Wayne		

After Institutional Review Board authorization was obtained from North Dakota State University to use the finalized survey, the first wave of surveys for both rural and urban parents was sent in January 2013. The second wave of surveys for both rural and urban parents was sent in March 2013.

## 2.2 Health Care Provider Survey

The health care provider survey can be found in Appendix B and includes questions regarding anticipatory guidance related to driving safety issues for older adults. Health care providers were asked questions related to their attitudes and perceptions of providing anticipatory guidance related to driving safety issues for older adults in their practice, as well as perceived barriers related to providing this information, knowledge of reporting drivers within their state, and referral processes/sources related to driving issues for older adults. In addition, they were asked the frequency with which they discuss safe driving habits or driving fitness with their patients in specific age groups: 64 years or younger, 65 to 74 years of age, 75 to 84 years of age, and 85 years of age or older. Health care providers were also asked to provide general demographic information including age, gender, specialty, degree, percent of practice comprised of patients aged 65 or older, and years practicing in their current specialty.

For the health care provider survey, provider contact information was purchased from an online physician contact information database company. Physicians (MDs, DOs) and midlevels (PAs, NPs) with a specialty of ophthalmology/optometry, family medicine, internal medicine, or geriatrics were selected for inclusion in this survey due to the assumption that these specialties would have larger proportions of older adults.

Similar to the older adult survey, the health care provider contact information was also stratified by rurality, with the areas surveyed including urban and rural counties in the following states: North Dakota, South Dakota, Utah, Colorado, and Wyoming (Figure 3.1).

Because the population of health care providers is smaller than that of the general population, the definitions for the rural and urban areas were broadened to include additional county code classifications in order to obtain a larger population to survey. Urban areas were defined as counties with a Rural-Urban Continuum Code of 1, 2, or 3. The ERS describes these as metro counties. Rural areas were defined as counties with a code classification of 4 through 9. The ERS describes these as non-metro counties. Code classification descriptions are listed in Table 2.2.

**Table 2.2** County Rural-Urban Continuum Codes

<b>Code</b>	<b>Description</b>
<b><i>Metro Counties:</i></b>	
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 250,000 population
<b><i>Non-metro Counties:</i></b>	
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area
7	Urban population of 2,500 to 19,999, not adjacent to a metro area
8	Completely rural or less than 2,500 urban population, adjacent to a metro area
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area

A list of 5,769 health care providers from the designated urban counties and a list of 1,788 health care providers from the designated rural counties in the selected states were obtained. After Institutional Review Board authorization was obtained from North Dakota State University to use the finalized survey, the first wave of surveys for both rural and urban health care providers was sent in January 2013. Surveys were sent to 1,300 rural providers and 1,300 urban providers. The second wave of surveys was sent in March 2013.

### **3. RESULTS**

#### **3.1 Older Adult Survey Results**

The urban response rate was 30.9%, with 402 respondents from the original 1,300 urban sample. The rural response rate was 33.2%, with 432 respondents from the original 1,300 rural sample.

##### **3.1.1 Demographics**

Overall, the average age of respondents was 74.2 years, with the average age of rural respondents being slightly less than that of urban respondents (73.9 years vs. 74.6 years) (Table 3.1). Slightly more respondents were female overall (54.4%), with a larger proportion of rural respondents being female than urban respondents (57.7% vs. 50.9%).

A majority of respondents were married (55.7%), with a larger proportion of rural respondents identifying themselves as married than urban respondents (60.3% vs. 50.9%). Nearly 28% of respondents overall stated they were widowed.

Most respondents lived with someone in a house or apartment (62.5%), with more than one-third stating they lived alone in a house or apartment (35.2%).

Overall, slightly more than one-third of respondents (36.5%) stated they had a high school education or lower, and slightly less than one-third of respondents (31.3%) stated they had attended some college or had a two-year degree. Rural respondents were more likely to state they had a high school education or lower than urban respondents (40.3% vs. 32.3%).

Approximately two-thirds of respondents had their most recent physical or check-up within six months of responding to the survey, while one-quarter had their most recent physical or check-up anywhere from six months to one year of responding to the survey.

Nearly half of respondents described their health as “good” (49.7%), while more than one-quarter described their health as “excellent.”

**Table 3.1** Older Adult Respondent Demographics

	<b>Overall</b>	<b>Rural</b>	<b>Urban</b>
<b>Age (mean years)</b>	<b>75.2</b>	<b>73.9</b>	<b>74.6</b>
<b>Gender</b>	<b>n=829</b>	<b>n=428</b>	<b>n=401</b>
Male	45.6%	42.3%	49.1%
Female	54.4%	57.7%	50.9%
<b>Marital Status</b>	<b>n=827</b>	<b>n=426</b>	<b>n=401</b>
Married	55.7%	60.3%	50.9%
In a relationship, not married	2.3%	2.8%	1.7%
Single, never married	3.5%	2.6%	4.5%
Divorced/Separated	10.8%	9.4%	12.2%
Widowed	27.7%	24.9%	30.7%
<b>Current Living Arrangements</b>	<b>n=827</b>	<b>n=427</b>	<b>n=400</b>
Live with someone in a house/apartment	62.5%	64.9%	60.0%
Live alone in a house/apartment	35.2%	33.3%	37.3%
Live in an assisted living facility/nursing home	1.3%	1.2%	1.5%
Other living arrangements	1.0%	0.7%	1.3%
<b>Highest Level of Education</b>	<b>n=831</b>	<b>n=428</b>	<b>n=402</b>
High school or less	36.5%	40.3%	32.3%
Some college/2-year degree	31.3%	28.4%	34.3%
4-year degree (Bachelor's)	20.5%	20.0%	20.9%
Master's degree	8.8%	8.6%	9.0%
Doctoral/professional degree	3.0%	2.6%	3.5%
<b>Most Recent Physical/Check-up</b>	<b>n=826</b>	<b>n=426</b>	<b>n=399</b>
Less than 6 months ago	65.0%	62.9%	67.3%
6-12 months ago	25.4%	24.6%	26.3%
1-2 years ago	6.7%	8.9%	4.3%
More than 2 years ago	2.9%	3.5%	2.3%
<b>Self-Report of Health</b>	<b>n=827</b>	<b>n=428</b>	<b>n=399</b>
Excellent	26.7%	25.9%	27.6%
Good	49.7%	48.4%	51.1%
Average	20.6%	22.7%	18.3%
Bad	3.0%	3.0%	3.0%
Very Bad	0.0%	0.0%	0.0%

Respondents were asked about their current driving status. Rural respondents were significantly more likely to state they currently drive than urban respondents ( $\chi^2=8.145$ ,  $df=1$ ,  $p=0.004$ ) (Table 3.2).

**Table 3.2** Current Driving Status

<b>Driving Status*</b>	<b>Overall (n=834)</b>	<b>Rural (n=432)</b>	<b>Urban (n=402)</b>
Currently Drive	92.9%	95.4%	90.3%
Do Not Currently Drive	7.1%	4.6%	9.7%

\*Significant at the  $p<0.05$  level.

### 3.1.2 Respondents Who Do Not Currently Drive

Respondents were asked their age when they stopped driving. Overall, average age for discontinuing driving was 77.5 years. No significant difference exists between driving discontinuation age for rural and urban respondents.

Respondents who stated they were not current drivers were asked their reasons for not driving or for discontinuing their driving. Overall, health issues was listed as the most common reason for discontinuing driving, with 75% of rural respondents and 61.5% of urban drivers selecting this reason (Table 3.3). “I decided it was time to stop driving” was the second most selected reason for discontinuing driving, with 30% of rural respondents and nearly 49% of urban drivers selecting this. Other commonly listed reasons include “it became frightening to drive” (rural = 25%; urban = 12.8%) and “my health care provider advised me to stop driving” (rural = 20%; urban = 28.2%).

**Table 3.3** Reasons for Discontinuing Driving

<b>Reasons for stopping driving:</b>	<b>Overall (n=59)</b>	<b>Rural (n=20)</b>	<b>Urban (n=39)</b>
I have never driven	3.4%	0.0%	5.1%
Health issues	66.1%	75.0%	61.5%
A friend or family member advised me to stop driving	8.5%	5.0%	10.3%
I decided it was time to stop driving	42.4%	30.0%	48.7%
I don't need a vehicle	10.2%	10.0%	10.3%
I failed my driver's test	1.7%	0.0%	2.6%
I was involved in a vehicle crash	0.0%	0.0%	0.0%
It is too expensive to drive	8.5%	0.0%	12.8%
It became frightening to drive	16.9%	25.0%	12.8%
My health care provider advised me to stop driving	25.4%	20.0%	28.2%
Other reasons:	18.6%	25.0%	14.4%
Poor eyesight	6.8%		
Never liked driving	5.1%		
Entered a nursing home	1.7%		
Meds make me dizzy	1.7%		
No vehicle	1.7%		
Son killed in car crash	1.7%		
Weather-related driving issues	1.7%		

Although 20% of rural respondents and 28.2% of urban respondents listed “my health care provider advised me to stop driving” as a reason for discontinuing driving in the previous question, only 5% of rural respondents and 19.4% of urban respondents responded in the affirmative when asked if a HCP had ever spoken with them about driving issues such as driving fitness or when to stop driving prior to stopping driving (Table 3.4).

**Table 3.4** HCP Spoke About Driving Issues Prior to Stopping Driving

	<b>Overall (n=56)</b>	<b>Rural (n=20)</b>	<b>Urban (n=36)</b>
Yes	78.6%	85.0%	75.0%
No	14.3%	5.0%	19.4%
Not Sure	7.1%	10.0%	5.6%

### 3.1.3 Respondents Who Currently Drive

Respondents who stated they are currently driving were asked how frequently they drove. Urban respondents drove significantly more frequently than rural respondents, with nearly 70% of urban respondents stating they drove daily, while slightly more than 60% of rural respondents drove that frequently ( $\chi^2=14.075$ ,  $df=5$ ,  $p=0.015$ ) (Table 3.5).

**Table 3.5** Driving Frequency

Frequency*	Overall (n=775)	Rural (n=412)	Urban (n=363)
Daily	64.6%	60.2%	69.7%
Several times a week	27.2%	30.3%	23.7%
Once a week	2.5%	1.9%	3.0%
Several times a month	4.0%	5.3%	2.5%
Once a month	0.4%	0.2%	0.6%
Rarely	1.3%	1.9%	0.6%

\*Significant at the  $P<0.05$  level

Respondents who stated they currently drive were also asked to describe their driving abilities on a scale from “poor” to “excellent.” Although not statistically significant, urban respondents were more likely to rate their driving abilities as “excellent” than rural respondents (48.9% vs. 40.3%) (Table 3.6).

**Table 3.6** Description of Driving Abilities

Rating	Overall (n=774)	Rural (n=412)	Urban (n=362)
Poor	0.0%	0.0%	0.0%
OK	4.0%	4.1%	3.9%
Good	51.7%	55.6%	47.2%
Excellent	44.3%	40.3%	48.9%

Respondents who stated they currently drive were also asked to rate their confidence in their driving abilities on a scale from “not confident at all” to “very confident.” Urban respondents were significantly more likely to be “very confident” in their driving abilities than rural respondents (47.5% vs. 38.1%) ( $\chi^2=9.525$ ,  $df=3$ ,  $p=0.023$ ) (Table 3.7).

**Table 3.7** Confidence in Driving Abilities

Confidence Level*	Overall (n=774)	Rural (n=412)	Urban (n=362)
Not Confident at All	0.0%	0.0%	0.0%
Not so Confident	0.1%	0.2%	0.0%
Somewhat Confident	5.9%	5.3%	6.6%
Confident	51.4%	56.3%	45.9%
Very Confident	42.5%	38.1%	47.5%

\*Significant at the  $P<0.05$  level

Respondents who stated they currently drive were asked if a HCP has ever provided information to them about safety driving habits. Nearly 96% of rural and urban respondents stated their HCP had never provided information to them about safety driving habits (urban = 95.7% ; rural = 95.5%) (Table 3.8).

**Table 3.8** HCP Provided Information about Safe Driving Habits

	<b>Overall (n=727)</b>	<b>Rural (n=377)</b>	<b>Urban (n=350)</b>
Yes	4.4%	4.5%	4.3%
No	95.6%	95.5%	95.7%

Respondents who stated they currently drive were also asked if they had ever been told by a HCP that they should limit or discontinue their driving. Nearly all of the urban and rural respondents stated they had never been told by a HCP that they should limit or discontinue their driving (urban = 98.8%; rural = 99.8%) (Table 3.9).

**Table 3.9** HCP Mentioned Driving Limitation

	<b>Overall (n=771)</b>	<b>Rural (n=409)</b>	<b>Urban (n=362)</b>
Yes	1.0%	0.2%	1.1%
No	99.0%	99.8%	98.9%

## 3.2 Health Care Provider Survey Results

Overall response rate for the health care provider survey was 10.2%, with 265 respondents from the original 2,600 urban and rural sample.

### 3.2.1 Demographics

Because the possibility exists for HCPs to reside in one county and practice in another, the HCP survey asked the respondent to identify the size of the community in which they currently practice, to further clarify the rurality of the population to which they were providing services. As a result, rural HCPs will be identified as those respondents who stated they practice in a community with a population of 49,999 or fewer people, and urban HCPs will be identified as those respondents who stated they practice in a community with 50,000 or more people (Table 3.10).

Overall, slightly less than three-fourths of respondents were male (72%), with 71.2% of rural respondents and 73.1% of urban respondents stating they were male (Table 3.10). The average age of all respondents was 54.5 years, with urban respondents being slightly younger than rural respondents (53.6 years vs. 55.1 years). The majority of respondents were medical doctors (97%), with slightly fewer rural respondents stating they were medical doctors than urban respondents (95.5% vs. 99.1%). Rural respondents were more likely to list a specialty of family medicine than urban respondents (69.4% vs. 40.7%), while urban respondents were more likely than rural respondents to list ophthalmology/optometry, internal medicine or “other specialties” including orthopedics or neurology.

Respondents were asked to approximate the percent of their practice comprised of patients aged 65 years of age or older. On average, slightly more than 45% (45.4%) of respondent practices were comprised of patients aged 65 or older (Table 3.10). On average, rural respondents had slightly greater proportions of



older adults in their practices than urban respondents (47.6% vs. 42.1%). Nearly 37% of rural respondents had at least half of their practices comprised of adults aged 65 or older, while less than 28% of urban respondents had at least half of their practices comprised of this age group.

On average, respondents had been in their current specialties for 23.2 years. However, on average, rural respondents had been in their current specialties slightly longer than urban respondents (24.2 years vs. 21.8 years).

Respondents were asked if they have ever had a family member or friend involved in a vehicle crash, or if they had ever been involved in a vehicle crash. More than three-fourths of rural and urban respondents stated they had a friend or family member who had been involved in a vehicle crash (rural = 80.0%; urban = 78.5%). Nearly three-fourths of urban respondents stated they had been in a vehicle crash (73.1%), while slightly more than 58% of rural respondents stated they had been in a crash (58.3%).

**Table 3.10** Health Care Provider Demographics

<b>Variables:</b>	<b>Overall</b>	<b>Rural</b>	<b>Urban</b>
<b><i>Gender</i></b>	<b><i>n=264</i></b>	<b><i>n=156</i></b>	<b><i>n=108</i></b>
Male	72.0%	71.2%	73.1%
Female	28.0%	28.8%	26.9%
<b><i>Age</i></b>	<b><i>n=263</i></b>	<b><i>n=156</i></b>	<b><i>n=107</i></b>
Mean years	54.5	55.1	53.6
<b><i>Degree</i></b>	<b><i>n=264</i></b>	<b><i>n=156</i></b>	<b><i>n=108</i></b>
MD/DO/OD	97.0%	95.5%	99.1%
PA/NP	3.0%	4.5%	0.9%
<b><i>Specialty</i></b>	<b><i>n=265</i></b>	<b><i>n=157</i></b>	<b><i>n=108</i></b>
Ophthalmology/Optomety	7.9%	6.4%	10.2%
Family Medicine	57.7%	69.4%	40.7%
Internal Medicine	15.1%	12.7%	18.5%
Geriatrics	1.1%	0.0%	2.8%
Other	11.3%	11.5%	27.8%
<b><i>Percent of practice with 65+ patients</i></b>	<b><i>n=265</i></b>	<b><i>n=157</i></b>	<b><i>n=108</i></b>
Mean percent	45.4%	47.6%	42.1%
10% to 25%	22.3%	20.4%	25.0%
26% to 50%	44.5%	42.7%	47.2%
51% to 75%	25.3%	27.4%	22.2%
76% or greater	7.9%	9.6%	5.6%
<b><i>Years in current specialty</i></b>	<b><i>n=265</i></b>	<b><i>n=157</i></b>	<b><i>n=108</i></b>
Mean years	23.2	24.2	21.8
<b><i>Had family member/friend involved in vehicle crash</i></b>	<b><i>n=262</i></b>	<b><i>n=155</i></b>	<b><i>n=107</i></b>
Yes	79.4%	80.0%	78.5%
No	19.1%	18.7%	19.6%
Do not know	1.5%	1.3%	1.9%
<b><i>Respondent involved in crash</i></b>	<b><i>n=264</i></b>	<b><i>n=156</i></b>	<b><i>n=108</i></b>
Yes	64.4%	58.3%	73.1%
No	35.6%	41.7%	26.9%
<b><i>Community Size</i></b>	<b><i>n=265</i></b>		
Less than 10,000	30.6%		
10,000 to 49,999	28.7%		
50,000 to 99,999	12.8%		
100,000 to 499,999	19.2%		
500,000 or more	8.7%		

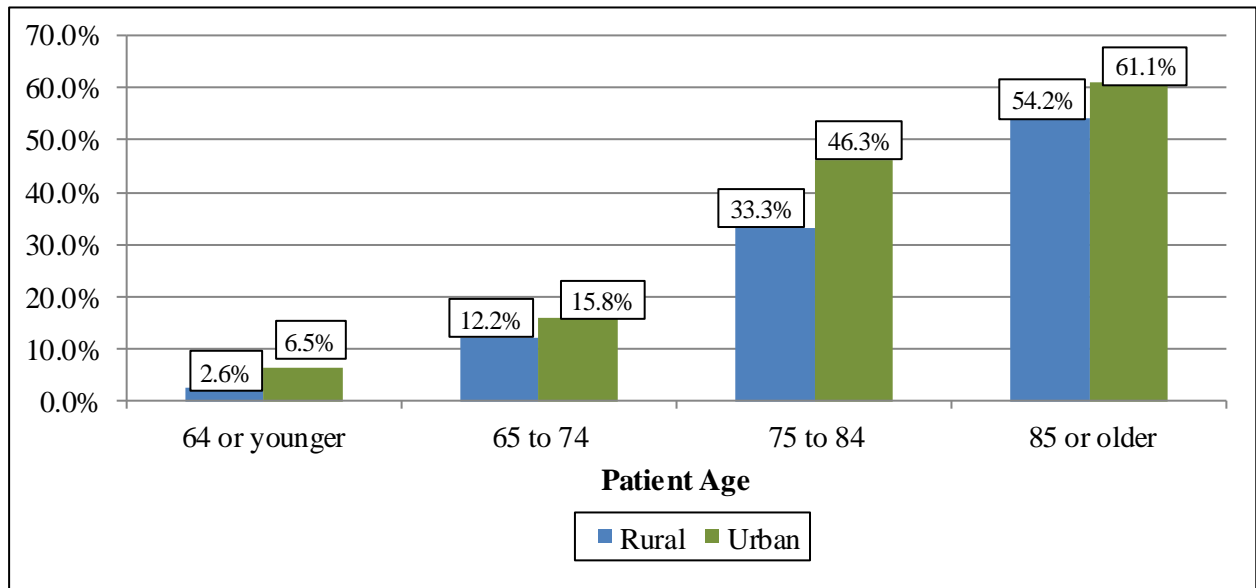
### 3.2.2 HCP Survey Responses

Respondents were asked to describe the frequency with which they discuss safe driving habits or driving fitness with their patients by specific age grouping, including patients aged 64 years of age or younger, 65 to 74 years of age, 75 to 84 years of age, and 85 or older. Overall, as patient age increased the more likely the HCPs were to discuss safe driving habits or driving fitness with their patients (Table 3.11, Figure 3.1). Although the differences between rural and urban HCPs in regards to frequency of advice provision were not significant, urban HCPs were more likely than rural HCPs to provide advice on driving safety and/or driving fitness “frequently” or “always” for all age groups (Table 3.11, Figure 3.1).

**Table 3.11** Frequency of Driving Safety/Driving Fitness Anticipatory Guidance by Patient Age

	<b>Overall</b>	<b>Rural</b>	<b>Urban</b>
<b><i>64 or younger</i></b>	<b><i>n=264</i></b>	<b><i>n=156</i></b>	<b><i>n=108</i></b>
Seldom/never	59.5%	58.3%	61.1%
Occasionally	36.4%	39.1%	32.4%
Frequently	3.4%	2.6%	4.6%
Always	0.8%	0.0%	1.9%
<b><i>65 to 74</i></b>	<b><i>n=263</i></b>	<b><i>n=155</i></b>	<b><i>n=108</i></b>
Seldom/never	20.5%	20.6%	20.4%
Occasionally	65.8%	67.1%	63.9%
Frequently	12.2%	11.6%	13.0%
Always	1.5%	0.6%	2.8%
<b><i>75 to 84</i></b>	<b><i>n=264</i></b>	<b><i>n=156</i></b>	<b><i>n=108</i></b>
Seldom/never	6.8%	7.1%	6.5%
Occasionally	54.5%	59.6%	47.2%
Frequently	34.5%	29.5%	41.7%
Always	4.2%	3.8%	4.6%
<b><i>85 or older</i></b>	<b><i>n=263</i></b>	<b><i>n=155</i></b>	<b><i>n=108</i></b>
Seldom/never	6.1%	7.1%	4.6%
Occasionally	36.9%	38.7%	34.3%
Frequently	46.0%	45.8%	46.3%
Always	11.0%	8.4%	14.8%

**Figure 3.1** Frequently or Always Discuss Driving Safety/Driving Fitness by Patient Age



Respondents were asked to list any barriers they perceived to providing counseling to older adults regarding driving issues. The barrier that was most frequently listed was time, with more than one-third of rural and urban HCPs listing this as a barrier (34.4% and 33.3%, respectively) (Table 3.12). HCPs feel that there is not enough time to discuss driving-related issues in addition to the other topics which need to be covered in the span of a regular check-up. Overall, the second-most-listed barrier was related to patient issues, including patient resistance to discussion, the fact that driving cessation is a sensitive issue, the danger of upsetting the patient-physician relationship, and patient resistance to following advice. However, the second-most-listed barrier for rural HCPs was loss of independence, with 16.1% of HCPs responding to this question listing this as a barrier. Rural HCPs were three times more likely to list this as a barrier than urban HCPs. The concern was related to the loss of their patients' independence resulting in a decline in mental health. Rural HCPs were also more likely than urban HCPs to list access to alternative transportation as a barrier (7.5% vs. 2.6%). Urban HCPs were twice as likely as rural HCPs to list family issues as a barrier, including overall resistance to any discussion related to the topic of driving issues, a failure of family members to bring up driving as a concern, and a lack of support of HCP recommendations that older family members discontinue driving (21.8% vs. 10.8%).

**Table 3.12** Barriers to Providing Counseling to Older Adults Regarding Driving Issues

<b>Response</b>	<b>Overall (n=171)</b>	<b>Rural (n=93)</b>	<b>Urban (n=78)</b>
Time	33.9%	34.4%	33.3%
Patient issues (resistance to discussion, sensitive issues, patient-physician relationship, anger, resistance to following advice)	18.7%	15.1%	23.1%
Family issues (resistance to discussion, fail to bring up concerns, lack of support)	15.8%	10.8%	21.8%
Not sure where to refer/resource availability	12.9%	14.0%	11.5%
Loss of independence	11.1%	16.1%	5.1%
Access to alternative transportation	5.3%	7.5%	2.6%
Lack of information/accuracy of information/consistency of information (symptoms to look for, tests to use, rules/regulations)	4.7%	6.5%	2.6%
Distance to driving fitness testing centers	4.1%	7.5%	0.0%
Cost of evaluation programs	4.1%	3.2%	5.1%
Lack of support for physician decision (family, patient, state)	2.9%	4.3%	1.3%
Don't know driver history/patients don't broach the topic	2.9%	3.2%	2.6%
Other	6.4%	4.3%	9.0%

Respondents were asked if they had ever told an older driver that they should limit their driving or discontinue their driving. Nearly all of the rural and urban respondents indicated that they had at some point told an older driver that they should limit or discontinue their driving (rural = 96.3%; urban = 98.1%) (Table 3.13).

**Table 3.13** Ever Communicated to Older Driver to Limit or Discontinue Driving

	<b>Overall (n=264)</b>	<b>Rural (n=156)</b>	<b>Urban (n=108)</b>
Yes	99.4%	96.3%	98.1%
No	0.6%	3.7%	1.9%

Respondents were asked to rate their level of agreement with several statements related to providing advice related to driving safety and driving cessation issues on a scale from one to five with one being “Strongly Disagree” and five being “Strongly Agree.” Responses in Table 3.13 are sorted in ascending order from least level of agreement to greatest level of agreement, based on the means of responses. Rural respondents were significantly more likely than urban respondents to disagree with the following statements: “There are adequate resources for older adults to get assistance with assessing their fitness to drive” ( $f=7.715$ ,  $df=1$ ,  $p=0.006$ ); “I refer patients to driving fitness evaluation resources in my community when I am uncertain of a patients’ ability to drive safely” ( $f=8.157$ ,  $df=1$ ,  $p=0.005$ ); and “I know where to refer older patients if they have questions regarding their fitness to drive” ( $f=6.762$ ,  $df=1$ ,  $p=0.010$ ) (Table 3.14). This speaks to the lack of resources located in rural areas, and the lack of information relayed to rural HCPs regarding referral services specific to testing driving capabilities.

Urban respondents were significantly more likely than urban respondents to disagree with the following statement: “I am concerned that patients will become angry if I bring up the subject of driving safety” ( $f=4.051$ ,  $df=1$ ,  $p=0.045$ ). Given the smaller populations of rural areas, and the greater likelihood, given the size and density of rural areas, that people in these areas will know each other outside of professional settings, it is reasonable that rural HCPs might be more concerned than urban HCPs about their relationships with their patients if the topic of driving safety/cessation is brought up in the office setting.

Rural and urban respondents agreed least with the following statement: “Older drivers get consistent advice on their fitness to drive from HCPs.”

Rural and urban respondents agreed most with the following statement: “HCPs should advise older patients on their fitness to drive.”

**Table 3.14** Level of Agreement with Statements Related to Driving Counseling Provision

<b>Statements:</b>	<b>Overall</b>	<b>Rural</b>	<b>Urban</b>
Older drivers get consistent advice on their fitness to drive from HCPs.	2.05	2.04	2.07
There are adequate resources for older adults to get assistance with assessing their fitness to drive.*	2.50	2.35	2.72
There is adequate time during regular visits to provide counseling regarding a patient’s fitness to drive.	2.65	2.68	2.61
I am concerned that patients will become angry if I bring up the subject of driving safety.*	2.76	2.86	2.61
I know the procedure in my state for reporting a patient who is potentially a dangerous driver.	2.89	2.90	2.87
HCPs are the most qualified professionals to discuss driving fitness with older drivers.	2.98	3.03	2.92
I am confident in my ability to provide counseling to my older patients on their ability to drive.	2.99	3.02	2.94
I refer patients to driving fitness evaluation resources in my community when I am uncertain of a patient’s ability to drive safely.*	3.07	2.89	3.34
I am concerned that patients will become angry if I bring up the subject of driving cessation.	3.26	3.34	3.16
I know where to refer older patients if they have questions regarding their fitness to drive.*	3.27	3.11	3.51
It Is the responsibility of HCPs to report patients who may be a danger to others on the road.	3.41	3.48	3.29
I am aware of whether my older patients are active drivers.	3.41	3.41	3.42
As a HCP, it is my responsibility to counsel older drivers on their fitness to drive.	3.70	3.70	3.70
I would benefit from further education about assessing driving fitness.	3.79	3.78	3.80
HCPs should advise older patients on their fitness to drive.	3.98	3.95	4.03

\*Significant at the  $p<0.05$  level.

## **4. SUMMARY AND CONCLUSIONS**

### **4.1 Findings**

There were three overall goals of this project. First, researchers wanted to identify HCP attitudes, perceptions, and barriers to providing anticipatory guidance to older drivers regarding driving-related issues, including, but not limited to, driving cessation. Second, researchers wanted to determine the frequency of HCP counseling regarding safe driving habits being provided to patients aged 65 and older by surveying HCPs and older adults. Finally, researchers wanted to determine if differences exist between rural and urban HCPs in regards to the frequency with which they are providing this counseling.

Overall, there was a discrepancy between the rates at which older adults indicated they were receiving anticipatory guidance related to driving safety issues and the rates at which health care providers were stating they were providing this information to their patients aged 65 and older. Approximately 14% of older adult respondents who stated they have stopped driving or never drove indicated that their HCP spoke with them about driving issues prior to stopping driving. Urban respondents who had stopped driving were four times as likely to say their HCP spoke with them about driving issues as rural respondents. Of the respondents who indicated they were still driving, less than 5% stated their HCP had ever provided them with information about safe driving habits.

Overall, HCPs were increasingly likely to provide anticipatory guidance related to driving issues to their patients the older they became – the older the patient, the more likely they were to provide information related to driving issues. Rural HCPs were less likely than urban HCPs to state they frequently or always discuss driving safety or driving fitness with their patients aged 65 or older.

The barrier to providing anticipatory guidance to older drivers listed most by both urban and rural HCPs was time. HCPs feel there is not enough time to discuss driving-related issues during a regular check-up, in addition to the other topics which need to be covered, some of which may be more pressing. Rural HCPs were more likely than urban HCPs to list loss of independence as a barrier. The concern was related to the loss of their patients' independence and a resulting decline in mental health. Rural HCPs were also more likely than urban HCPs to list access to alternative transportation as a barrier, because in rural areas it is difficult to find transportation options if one does not drive.

Rural HCPs were less likely than urban HCPs to think there were adequate resources for older adults to get assistance with assessing their fitness to drive. Rural HCPs were also less likely to refer patients to driving fitness evaluation resources, possibly due to a lack of resources in their community, and were less likely to know where to refer patients if they had questions related to their fitness to drive.

### **4.2 Study Limitations**

This study was limited by a number of factors. The first limitation is related to the representativeness of the samples. These results reflect the responses of adults aged 65 or older and health care providers whose names and contact information were made available through a data clearinghouse. Persons whose contact information was not available through either of these sources were excluded from participating in the surveys. Second, responses rates were low, decreasing the generalizability of the data. Future research should focus on increasing response rates for both the older adult population and the health care provider population. Third, results could have been affected by social desirability bias. This is evident specifically in the high percent of health care providers indicating they provide anticipatory guidance to their older patients and the small number of older adults who indicated they were receiving this counseling. Health

care providers may be aware of the behaviors that are expected of them and they may over-report providing these types of services to their patients.

### **4.3 Future Research**

Future research in this area should focus on the reasons behind the differences in anticipatory guidance practices of health care providers located in rural and urban regions. In addition, the results show a gap between the self-report frequencies of anticipatory guidance provision as it relates to driving safety/driving cessation issues by health care providers, and the rate at which older adults are indicating it is actually being provided. Additional research should be conducted into the rates of anticipatory guidance provision, perhaps by examining patient health records for any coding related to these counseling efforts, or by conducting a subsequent similar study, focusing on obtaining a larger, more generalizable response rate.

## REFERENCES

- Ballesteros, M.F., and A.C. Gielen. (2010). Patient counseling for unintentional injury prevention. *American Journal of Lifestyle Medicine*, 4(1): 38-41.
- Bogner, H.R., J.B. Straton, J.J. Gallo, G.W. Rebok, & P.M. Keyl. (2004). The role of physicians in assessing older drivers: Barriers, opportunities, and strategies. *Journal of the American Board of Family Practice*, 17 (1), 38-43.
- Chen, J., M. Kresnow, T.R. Simon, & A. Dellinger. (2007). Injury prevention counseling and behavior among US children: Results from the second Injury Control and Risk Survey. *Pediatrics*, 119 (4), e958-e965.
- Jang, R.W., M. Man-Son-Hing, F.J. Molnar, D.B. Hogan, S.C. Marshall, J. Auger, I.D. Graham, N. Korner-Bitensky, G. Tomlinson, M.E. Kowgier, & G. Naglie. (2007). Family physicians' attitudes and practices regarding assessments of medical fitness to drive in older persons. *Journal of General Internal Medicine*, 22 (4), 531-543.
- Kakaiya R., R. Tisovec, and P. Fulkerson. (2000). Evaluation of fitness to drive: The physician's role in assessing elderly or demented patients. *Postgraduate Medicine*, 107(3): 229-236.
- Korner-Bitensky, N., A. Menon, C. von Zweck, and K. Van Bentham. (2010). Occupational therapists' capacity-building needs related to older driver screening, assessment, and intervention: A Canadawide survey. *American Journal of Occupational Therapy*, 64(2); 316-324.
- Lyman, S., S.A. Ferguson, E.R. Braver, and A.F. Williams. 2002. Older driver involvements in police reported crashes and fatal crashes: trends and projections. *Injury Prevention*, 8, 116-120.
- Marshall, S.C. & N. Gilbert. (1999). Saskatchewan physicians' attitudes and knowledge regarding assessment of medical fitness to drive. *Canadian Medical Association Journal*, 160 (12), 1701-1704.
- National Highway Traffic Safety Administration (NHTSA). (2011). Traffic Safety Facts 2009 Data – Older Population. <http://www-nrd.nhtsa.dot.gov/Pubs/811391.pdf>.
- Posner, J.C., L.A. Hawkins, F. Garcia-Espana, and D.R. Durbin. (2004). A randomized, clinical trial of a home safety intervention based in an emergency department setting. *Pediatrics*, 113(6): 1603-1608.
- U.S. Census Bureau. 2011 Statistical Abstract – The National Data Book.  
[http://www.census.gov/compendia/statab/cats/population/estimates\\_and\\_projections\\_by\\_age\\_sex\\_raceethnicity.html](http://www.census.gov/compendia/statab/cats/population/estimates_and_projections_by_age_sex_raceethnicity.html)



## **APPENDIX A: OLDER ADULT SURVEY**

**NDSU**

**PUBLIC HEALTH**

**NORTH DAKOTA STATE UNIVERSITY**

*College of Pharmacy, Nursing, and Allied Sciences*

*Master of Public Health Program*

*NDSU Dept. 2660; P.O. Box 6050*

*Fargo, ND 58108-6050*

*701.231.6323*

*Fax 701.231.7606*

February 27, 2015

North Dakota State University in Fargo, North Dakota is conducting a survey of driver issues. We are inviting you to participate in this research project. Enclosed with this letter is a brief survey asking a variety of questions regarding driver issues. We are asking you to look over the survey, and if you choose to do so, complete it and return it in the enclosed postage paid envelope. Please do not include your name or address on the return envelope or survey.

Your participation in this research study is voluntary and your response is confidential. The survey will take approximately 5-10 minutes to complete. By returning the survey to us, you are providing your consent to participate in the project.

Any questions about this survey can be referred to Andrea Huseth at (701) 231-8681 or [andrea.huseth-zosel@ndsu.edu](mailto:andrea.huseth-zosel@ndsu.edu). If you have any questions about your rights as a research subject, or if you would like to file a complaint about this research, please contact the NDSU Human Research Protection Program at 1-855-800-6717, [ndsu.irb@ndsu.edu](mailto:ndsu.irb@ndsu.edu), or NDSU HRPP Office, NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050. The role of IRB is to see that your rights are protected in this research. This project is funded by the Mountain Plains Consortium through a grant from the U.S. Department of Transportation.

Sincerely,



Dr. Donald Warne, MD, MPH  
Associate Professor and Director  
Master of Public Health Program  
North Dakota State University

Are you aged 65 or older?  Yes – **PLEASE CONTINUE TO QUESTION #1**  
 No – *We're sorry, but this survey is limited to persons aged 65 or older. Thank you!*

1. Do you currently drive?  No: If NO – please go to *Question #2*  
 Yes: If YES – please go to *Question #3*

**2. IF YOU *DON'T* CURRENTLY DRIVE, please answer the following questions:**

a. Why did you stop driving? Select all that apply.

<u>Yes</u>	<u>No</u>	
<input type="checkbox"/>	<input type="checkbox"/>	I have never driven
<input type="checkbox"/>	<input type="checkbox"/>	Health issues
<input type="checkbox"/>	<input type="checkbox"/>	A friend or family member advised me to stop driving
<input type="checkbox"/>	<input type="checkbox"/>	I decided it was time to stop driving
<input type="checkbox"/>	<input type="checkbox"/>	I don't need a vehicle
<input type="checkbox"/>	<input type="checkbox"/>	I failed my driver's test
<input type="checkbox"/>	<input type="checkbox"/>	I was involved in a vehicle crash
<input type="checkbox"/>	<input type="checkbox"/>	It is too expensive to drive
<input type="checkbox"/>	<input type="checkbox"/>	It became frightening to drive
<input type="checkbox"/>	<input type="checkbox"/>	My health care provider advised me to stop driving
<input type="checkbox"/>	<input type="checkbox"/>	Other reason (please list)

-----

b. How old were you when you stopped driving? \_\_\_\_\_ years

c. Prior to stopping driving, had a health care provider/doctor ever spoken with you about driving issues such as driving fitness or when to stop driving?  Yes  No  Not sure

**IF YOU ANSWERED QUESTION #2 –  
PLEASE TURN THE PAGE OVER TO COMPLETE THE REST OF THE SURVEY.**

**3. IF YOU *DO* CURRENTLY DRIVE, please answer the following questions:**

a. How frequently do you drive?  Daily  Several times a week  Once a week  
 Several times a month  Once a month  Rarely

b. How would you describe your driving abilities?  Poor  OK  Good  Excellent

c. How confident are you in your overall driving abilities?  
 Not Confident at All  Not so Confident  Somewhat Confident  Confident  Very Confident

d. Has a health care provider ever provided information to you about safe driving habits?  
 Yes  No  Not sure

e. Have you ever been told by a health care provider that you should limit your driving or discontinue driving?  
 Yes  No  Not sure

**PLEASE TURN THE PAGE OVER TO COMPLETE THE REST OF THE SURVEY.**



4.	Have you ever been involved in a vehicle crash?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
5.	How would you describe your health?	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Average	<input type="checkbox"/> Bad	<input type="checkbox"/> Very Bad
6.	What is your age?	_____ years				
7.	What is your gender?	<input type="checkbox"/> Male	<input type="checkbox"/> Female			
8.	What is your marital status? (please select one)	<input type="checkbox"/> Married	<input type="checkbox"/> In a relationships, not married	<input type="checkbox"/> Single, never married		
		<input type="checkbox"/> Divorced/Separated	<input type="checkbox"/> Widowed			
9.	What are your current living arrangements? (please select one)	<input type="checkbox"/> I live with someone in a house or apartment <input type="checkbox"/> I live alone in a house or apartment <input type="checkbox"/> I live in an assisted living facility/nursing home <input type="checkbox"/> I have other living arrangements (please describe) _____				
10.	What is the highest level of education you have completed? (please select one)	<input type="checkbox"/> High school or less	<input type="checkbox"/> 4-year degree (Bachelor's)	<input type="checkbox"/> Doctoral or Professional Degree (MD, DO, JD, PhD)		
		<input type="checkbox"/> Some college/2-year degree	<input type="checkbox"/> Master's Degree			
11.	When was your most recent physical/ check-up with a health care provider? (please select one)	<input type="checkbox"/> Less than 6 months ago <input type="checkbox"/> 6-12 months ago <input type="checkbox"/> 1-2 years ago <input type="checkbox"/> More than 2 years ago <input type="checkbox"/> Not sure				

**Thank you for your response!**  
**Please return this survey in the envelope provided to you.**

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, sex, sexual orientation, status as a U.S. veteran, race or religion. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708.

**APPENDIX B: HEALTH CARE PROVIDER SURVEY**

**NDSU**

**PUBLIC HEALTH**

**NORTH DAKOTA STATE UNIVERSITY**

*College of Pharmacy, Nursing, and Allied Sciences*

*Master of Public Health Program*

*NDSU Dept. 2660; P.O. Box 6050*

*Fargo, ND 58108-6050*

*701.231.6323*

*Fax 701.231.7606*

February 27, 2015

RE: Health Care Providers and Older Drivers Survey

Dear Health Care Provider,

North Dakota State University in Fargo, North Dakota is conducting a survey of issues concerning older drivers and health care providers, including MDs, DOs, NPs, and PAs. We are inviting you to participate in this research project. Enclosed with this letter is a brief survey asking a variety of questions regarding older driver issues. We are asking you to look over the survey, and if you choose to do so, complete it and return it in the enclosed postage paid envelope. Please do not include your name or address on the return envelope or survey.

Your participation in this research study is voluntary and your response is confidential. The survey will take approximately 5-10 minutes to complete. By returning the survey to us, you are providing your consent to participate in the project.

Any questions about this survey can be referred to Andrea Huseth at (701) 231-8681 or [andrea.huseth-zosel@ndsu.edu](mailto:andrea.huseth-zosel@ndsu.edu). If you have any questions about your rights as a research subject, or if you would like to file a complaint about this research, please contact the NDSU Human Research Protection Program at 1-855-800-6717, [ndsu.irb@ndsu.edu](mailto:ndsu.irb@ndsu.edu), or NDSU HRPP Office, NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050. The role of IRB is to see that your rights are protected in this research. This project is funded by the Mountain Plains Consortium through a grant from the U.S. Department of Transportation.

Sincerely,



Dr. Donald Warne, MD, MPH  
Associate Professor and Director  
Master of Public Health Program  
North Dakota State University

**Are you currently in an active clinical practice that includes patients 65 years of age and older?**

- Yes. Please complete the rest of the survey.  
 No. Thank you for your time. Please do NOT complete the rest of the survey.

**1. On a scale from one to five with one being “Strongly Disagree” and five being “Strongly Agree”, please rate your level of agreement with the following statements by circling the most appropriate response:**

	Strongly Disagree	Disagree	Depends	Agree	Strongly Agree
In my practice setting, there is adequate time during regular visits to provide counseling regarding a patient’s fitness to drive.	1	2	3	4	5
I know where to refer older patients if they have questions regarding their fitness to drive.	1	2	3	4	5
Health care providers should advise older patients on their fitness to drive.	1	2	3	4	5
It is the responsibility of health care providers to report patients who may be a danger to others on the road.	1	2	3	4	5
Older drivers get consistent advice on their fitness to drive from health care professionals.	1	2	3	4	5
Health care providers are the most qualified professionals to discuss driving fitness with older drivers.	1	2	3	4	5
I am concerned that patients will become angry if I bring up the subject of <u>driving cessation</u> .	1	2	3	4	5
I know the procedure in my state for reporting a patient who is potentially a dangerous driver.	1	2	3	4	5
There are adequate resources for older adults to get assistance with assessing their fitness to drive.	1	2	3	4	5
I am concerned that patients will become angry if I bring up the subject of <u>driving safety</u> .	1	2	3	4	5
As a health care provider, it is my responsibility to counsel older drivers on their fitness to drive.	1	2	3	4	5
I am aware of whether my older patients are active drivers.	1	2	3	4	5
I refer patients to a driving fitness evaluation resource in my community when I am uncertain of a patients’ ability to drive safely.	1	2	3	4	5
I am confident in my ability to provide counseling to my older patients on their ability to drive.	1	2	3	4	5
I would benefit from further education about assessing driving fitness.	1	2	3	4	5

2. How frequently do you discuss safe driving habits or driving fitness with patients in the following age groups:

Age	Seldom or Never	Occasionally	Frequently	Always
64 years or younger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65 to 74 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
75 to 84 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
85 years or older	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Please list any barriers you perceive to providing counseling to older adults regarding driving issues.

-----

-----

-----

4. Have you ever told an older driver that they should limit their driving or discontinue driving?

- Yes     No     Do Not Know

5. Have you ever had a family member or friend involved in a vehicle crash?     Yes     No     Do Not Know

6. Have you ever been involved in a vehicle crash?     Yes     No

The following questions ask about you and your practice:

7. In which state do you currently practice? \_\_\_\_\_

8. What is the population of the community in which you currently practice?

- Less than 10,000     10,000-49,999     50,000-99,999     100,000-499,999     500,000 or more

9. What is your age? \_\_\_\_\_ years

10. What is your gender?     Male     Female

11. What is your specialty?     Ophthalmology/Optometry     Family Medicine     Internal Medicine  
 Geriatrics     Other \_\_\_\_\_

12. Please specify your degree:     MD/DO     PA/NP     Other (please list) \_\_\_\_\_

13. Approximately what percent of your practice is comprised of patients aged 65 or older? \_\_\_\_\_%

14. How many years have you been practicing in your current specialty? \_\_\_\_\_ years

**Thank you for your response!**

**Please return this survey in the envelope provided to you.**

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, sex, sexual orientation, status as a U.S. veteran, race or religion. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, [701] 231-7708.