

**SAFE DRIVERS SMART OPTIONS STRATEGY:
AWARENESS AMONG MICHIGAN OLDER ADULTS,
CAREGIVERS, AND PROFESSIONALS**



**DAVID W. EBY, JENNIFER S. ZAKRAJSEK, RENÉE M. ST.
LOUIS, NICOLE ZANIER, & LISA J. MOLNAR**

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16. Abstract In this project, UMTRI conducted <i>Safe Drivers Smart Options</i> (SDSO) strategy and website awareness surveys among Michigan older adults, caregivers who provide transportation assistance to older adults, and professionals who serve/interact with these two groups regarding aging and transportation. UMTRI compared these results to similar surveys conducted in 2016. The results showed: awareness of the SDSO strategy phrase and website is low and has stayed the same or decreased since the 2016 surveys; older adults, caregivers, and professionals are interested in having information about advanced driver assistance systems; use of the Internet to find transportation and aging related information is increasing for both older adults and caregivers; the transportation-related information that the three groups seek is generally available on the SDSO website; and the primary types of assistance given by Michigan caregivers is related to getting older adults to and from destinations.					
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Introduction

In response to the rapid growth in Michigan's older adult population, the Michigan Department of Transportation (MDOT) undertook several studies to better understand and prepare for how this change might impact older adult safety and mobility (Eby et al., 2011, 2012; Kostyniuk et al., 2012; St. Louis et al., 2011). These studies documented the current and future safe mobility challenges for Michigan's older adults, their caregivers (unpaid family or friends who provide transportation assistance to older adults), and the professionals who interact with these groups to support aging people and transportation. Based on this work and discussions within State government, MDOT determined a need to develop and implement a statewide strategy for helping older Michigan residents maintain safe mobility. Researchers from the University of Michigan Transportation Research Institute (UMTRI) worked with MDOT and other Michigan stakeholders¹ to develop, implement, and assess a statewide strategy called *Safe Drivers Smart Options (SDSO): Keys to Lifelong Mobility* (Eby et al., 2016). The SDSO strategy was launched in mid-2016 and is currently managed by the Michigan Department of State and the Governor's Traffic Safety Advisory Commission's Senior Mobility and Safety Action Team. The Strategy information is supported by a website: <https://www.michigan.gov/agingdriver>.

The target audiences for SDSO information are older adults (age 60 and older), caregivers, and the professionals who work/interact with adults and their caregivers regarding aging and mobility (e.g., health professionals and law enforcement). SDSO has three main goals:

- Help older adults who are able to drive safely continue to do so;
- Facilitate the transitioning process from driving to non-driving for those who are unable or choose not to drive; and
- Support the use of non-driving community mobility options for those who no longer drive.

In support of these goals, the SDSO strategy focuses on three components: public education (e.g., information, awareness, references), direct intervention (e.g., skill assessment, skill building, planning, and finding workable transportation alternatives), and administration and collaboration (finance and budget as well as medical/social/public safety and transportation agency collaboration and coordination).

In 2016, UMTRI conducted two waves of surveys that assessed awareness of the strategy and website among its three target audiences (Eby et al., 2016). The present project was designed to conduct another set of surveys to assess SDSO awareness, following the previous survey methods as closely as possible and to compare the present results with those obtained in 2016.

¹ AAA-1B, ADED, MSP, Blueprint for Aging MI, APA MI, SEMCOG, Beaumont Health, Mason County Sheriff Dept., OHSP, AARP, AATA, MPTA, MSA, MAFP, AAA Michigan, TIA-MI, FHWA, OSA, MDOS, MDCH, GSWSM, MACP, MDHS, MPA, and NASW MI.

Methods

Develop Questionnaires

Because UMTRI intended to compare the present results to awareness questionnaires conducted previously (Eby et al., 2016), UMTRI used the same questions with some additions. So that UMTRI could better assess representativeness and inclusiveness, UMTRI expanded the questions related to demographics. Advanced driver assistance system (ADAS) technologies have progressed greatly since the previous surveys, so UMTRI added questions about ADAS technologies.

Sample Designs

The goal of the sample design was to match as closely as possible the design used in the previous awareness studies (Eby et al., 2016). As with the previous studies, the Michigan older adult and caregiver samples were designed to be representative of Michigan's population. To ensure wide representation across Michigan, samples were drawn from the seven Michigan Department of Transportation regions in the same proportions as found in the Michigan Driver License Database: Bay 15%, Grand 15%, Metro 36%, North 7%, University 14%, Southwest 8%, Superior 4%. Because of reasons outlined below, the professionals' questionnaire sample relied on a convenience sample methodology, which allowed UMTRI to target the professionals most likely to have an interest in the SDSO strategy but did not allow UMTRI to generalize these results statewide.

Older Adults

To randomly sample the older adult population in Michigan, UMTRI utilized the state's driver history database, for which the research team has free access. As with the previous research, UMTRI defined older adults as Michigan residents aged 60 and older who were in the database. Because the driver history file database contains records of people who are currently licensed, those who have a license that is expired or revoked, and those with an MDOS-issued identification card, this sample included both older adult drivers and non-drivers in approximately the same proportion as found in Michigan.

Caregivers

The caregiver sample also utilized the Michigan driver history database to randomly select potential respondents who were providing care to an older adult. Following the procedures of our past research (e.g., Eby et al., 2016) UMTRI estimated the age at which a caregiver is most likely to begin to provide assistance is about 45 years. In addition, UMTRI also estimated that about 40 percent would be a spouse and another 44 percent would be an adult child. Therefore, UMTRI drew a random sample of Michigan residents from the driver history database who were ages 45 to 80. To ensure that UMTRI only talked to family members and other caregivers, the questionnaire contained screening questions that filtered out those people who were not providing assistance to an older adult.

Professionals

Because of the difficulty and expense of conducting a representative survey of professionals, UMTRI opted for a convenience sample of stakeholders from organizations who had members on the Governor's Traffic Safety Advisory Commission's Senior Mobility and Safety Action Team. This Action Team has members that represent organizations related to health, safety, aging, law enforcement, policy, and other areas with a focus on the safe mobility of older adults.

Data Collection

Older Adult and Caregiver Surveys

The older adult and family/caregiver surveys were conducted simultaneously between April 18 and May 31, 2023. Both were administered by telephone through Escalent, a professional survey company. For both surveys, UMTRI provided the Escalent team with sample respondents drawn from the Michigan driver history database. Escalent then matched these records to a commercially available telephone number database (with a 37% match rate). Both cell phone and landline phone numbers were used. The average time to complete the questionnaire was about 8 minutes for the older adults and 10.8 minutes for the family members/caregivers.

For the older adult survey, 1,388 eligible respondents were reached, of whom 220 completed the questionnaire, 1,040 refused, and 128 did not complete the questionnaire for other reasons. Based on the American Association for Public Opinion Research (AAPOR) methods, the response rate was estimated to be 15.8%. For the caregiver survey, 4,118 eligible respondents were reached. Of these, 189 completed the survey, 3,708 refused, and the rest did not complete the survey for other reasons. The response rate was estimated to be 4.6%

Professionals

The survey of professionals was administered using Qualtrics, a leading online survey platform. In March 2023, a member of the research team sent an email message to members of the Action Team explaining the purpose of the survey and asking if they would be interested in distributing the survey to appropriate employees/members at their respective organizations, and if so, what would be the best method (e.g., email list, newsletter) to do so. In early April 2023, Action Team members that expressed interest in assisting with the survey were emailed a survey link and instructions that included a request for their employees/members to complete the survey by May 31, 2023 (a requested completion date of June 7, 2023 was given to one organization's members that were not emailed the survey link until late May). The Action Team members were asked to report to UMTRI the number of employees/members that were sent the survey link.

Action Team members representing the 22 organizations listed in Table 1 were sent the instructions and the survey link for distribution to their employees/members. Follow up email messages were sent to Action Team members as necessary to remind them to distribute the survey and report back the number of employees/members to whom it was sent.

Sixteen of the 23 Action Team members that were asked to distribute the survey reported back to UMTRI to whom they sent the survey. Fourteen of these Action Team members sent the survey

link by email. Two members included the survey link in their organization’s e-newsletter. The details provided by these Action Team members are described in Table 2.

Table 1: List of Organizations Sent the SDSO Stakeholder Survey Instructions and Link

AAA – The Auto Club Group
AARP, Michigan
Alzheimer's Association, Michigan Chapter
Area Agency on Aging 1-B
Ascension/Providence Hospital
Association for Driver Rehabilitation Specialists (ADED)
Corewell Health
Covenant Healthcare
Federal Highway Administration, Michigan Division
Henry Ford Health System
Mason County Sheriff’s Office
Mercy Health
Michigan Department of Health and Human Services
Michigan Department of State
Michigan Department of Transportation
Michigan Medicine – Geriatrics Center
Michigan Medicine - Trauma Burn Center
Michigan Occupational Therapy Association (MiOTA)
Michigan Office of Highway Safety Planning (OHSP)/Michigan State Police (MSP)
Origami Rehabilitation
Southeastern Michigan Council of Governments (SEMCOG)
St. Joseph Mercy Health System

Table 2: Number of Employees/Members Reportedly Sent Stakeholder Survey

Organization	Employees/ Members Sent Survey	Type of Recipients
AAA – The Auto Club Group	1	Staff member.
AARP, Michigan	Estimated 200	AARP volunteers.
Alzheimer's Association, Michigan Chapter	22	Staff members.
Ascension/Providence Hospital	343	Staff members between their two campuses.
Association for Driver Rehabilitation Specialists (ADED)	26	Members in Michigan.

Corewell Health	2	Sent to the Nurse Manager for the hospital's Geriatric Program and the Trauma Program Manager, each of whom distributed it to an unknown number of recipients.
Federal Highway Administration, Michigan Division	9	Staff members.
Mercy Health	14	Staff members in the geriatric practices.
Michigan Department of Transportation	15	One individual at each of 15 agencies that work with older adults.
Michigan Medicine – Geriatrics Center	45	Faculty members.
Michigan Medicine - Trauma Burn Center	Estimated 200	Staff members.
Michigan Occupational Therapy Association (MiOTA)	Estimated 860	MiOTA members.
Michigan Office of Highway Safety Planning/MSP	15	OHSP/MSP staff and law enforcement personnel.
Origami Rehabilitation	14	Staff members.
SEMCOG	4,817	Distributed in the bi-weekly newsletter.
St. Joseph Mercy Health System	Estimated 700	Distributed in the physician newsletter of over 700 providers.

In total, the survey link was reportedly sent to approximately 7,339 employees/members of Michigan organizations related to aging, health, and transportation. The survey link was possibly sent to additional organizations, however, no further reports beyond those listed in Table 2 were sent to UMTRI. Of those sent the link, 184 completed the questionnaire for an estimated response rate of 2.5%.

Results

Older Adult Survey

Because the older adult sample distribution closely matched the demographics of Michigan residents age 60 and older, the results did not need to be weighted to be representative of Michigan. Of the 220 older adults who completed the survey, one-half were men, 48.2% were women, and the rest either identified as non-binary or refused. About 40% were aged 60-70, 32% were aged 71-80, 28% were aged 81 or older, and the rest refused. The sample was primarily White (83%), with 10% reporting their race as Black/African American, 2% as American Indian or Asian, and the rest refused to answer or reported they did not know. Respondents reported their education levels with 27% reporting a high school diploma (or equivalent) or less, 28% reporting a vocational certificate or some college, 28% reporting an associate or bachelor's degree, and 15% reporting a graduate degree. More than one-half (56%) were married or living

with a partner, 21% were widowed, 16% were separated or divorced, and the rest (7.2%) were either never married or refused to answer. Household income was well distributed with, 8% reporting less than \$20K, 26% reporting between \$20K and \$50K, 16% reporting between \$50K to \$80K, 9% reporting between \$80K and \$100K, and 15% reporting \$100K or more. Nearly 21% refused to answer and 4% did not know.

A large majority of respondents currently drove a car at least once in a while (94%). Of those who drove, 71% percent reported driving often, 21% sometimes, and the rest either drove rarely or refused to answer. About 88% reported that they have never thought about stopping driving.

When asked if anyone helped them with transportation by giving rides, helping to arrange rides, or helping to obtain information, 82% of respondents answered “no”. The 40 respondents that answered “yes” were further asked who provided this assistance and 30% reported a spouse or significant other, 30% reported an adult child, 18% reported a parent or other relative, and 15% reported a friend. None reported paying someone for this assistance. More than one-half of the care providers (55%) were men. Table 3 shows the types of transportation assistance provided by the caregivers.

Table 3: Type of Transportation Assistance Provided to Older Adults and the Percentages of Respondents (standard error, SE) who Received Each Type of Assistance.

Type of Assistance	% who receive this assistance (SE)
Drives me	95.0 (3.5)
Helps me arrange for my own transportation	35.0 (7.6)
Find/provides information/resources about continuing to drive safely	32.5 (7.5)
Accompanies me on trips by public/community transportation	20.0 (6.4)
Arranges for rides	20.0 (6.4)
Finds/provides information/resources about getting around after stopping driving	20.0 (6.4)
Finds/provides information/resources about retiring from driving	17.5 (6.1)
Finds information about retiring from driving	3.8 (2.7)

Respondents were asked if they had or were currently seeking information about several topics related to safe mobility for older adults. Respondents answered “yes” or “no” to each type of information. Table 4 presents these results.

Table 4: Percent of Respondents Who Have Sought or were Seeking Information by Topic

Topic	% seeking (SE)
Advanced technologies in your current or future car	23.6 (2.8)
General information about transportation and aging	10.9 (2.1)
How aging affects driving	10.0 (2.0)
Organizations that address transportation and aging	10.0 (2.0)

Getting around after driving retirement	9.6 (2.0)
State laws and licensing of older drivers	8.6 (1.9)
Reducing or stopping driving	6.4 (1.6)
Driving improvement or refresher courses	4.6 (1.4)
Evaluating your driving ability	4.6 (1.4)
Other	4.1 (1.3)
None of these topics	59.6 (3.3)
Refused	0.4 (0.4)

Those who responded that they sought information on other topics could specify what those topics were. The following verbatim responses were provided:

- Availability of transportation. There just isn't enough of it. I wish there was a solution. There are so many people who just do not have help in the transportation area.
- For doctor's appointments and such.
- I always look up on the internet about the transportation and what is easier.
- I just took refresher course with AARP. I take it every 3 years to reduce insurance. If I take [the] course I get a reduction. They call it defensive driving.
- Information about traffic so we can take back roads.
- Free transportation.
- I am very familiar with driving skills and did some training while working, therefore, I am really involved with planning safe driving and those skills. I am at age 83, involved in discussions about that frequently.
- Not too much, just the information on transportation for older people if you need it.

About 61% of transportation-related information-seeking respondents indicated that they used the Internet to find this information and they accessed the Internet primarily through a desktop computer (30%), smartphone (30%), laptop computer (26%), or tablet (13%). UMTRI asked respondents who indicated they used Internet-based sources for their information, which sources they used, and how much they trusted the information source. Table 5 shows the percentages of respondents who used various forms of Internet information. Table 5 also shows perceived trust in the various forms of Internet information on a scale of 1 to 5, where 1 was no trust at all and 5 was complete trust.

Table 5: Percentages of Respondents Using Various Internet Sources and Average Rating of Trust (N=146)

Type of Internet Source	% Respondents (SE)	Trust Rating \pm CI
A general "Google" or other search	88.9 (4.3)	3.3 \pm 0.1
Government agency website	44.4 (6.8)	3.5 \pm 0.2
Social media (e.g., Twitter, Facebook)	29.6 (6.3)	2.6 \pm 0.2
Automotive manufacturer website	29.6 (6.3)	4.0 \pm 0.2
Professional organization website	25.9 (6.0)	4.2 \pm 0.2
Wikipedia	16.7 (5.1)	3.0 \pm 0.2
Automotive dealer website	14.8 (4.9)	3.4 \pm 0.5

Blog	3.7 (2.6)	1.5 ± 0.5
Chat room	1.8 (1.8)	1.0 (no CI)
Other	14.8 (4.9)	4.0 ± 0.4

Respondents reported the following other types of Internet sources (verbatim):

- 211 phone number
- YouTube
- Engineers in automotive
- Friends and relatives
- General news websites, AASHTO
- News articles
- People that I know
- Senior info

Respondents were also asked what non-Internet sources they used to seek out information about safe mobility for older adults and their level of trust in these sources. Table 6 shows these results.

Table 6: Percentages of Respondents Using Various Forms of Non-Internet Information and Average Ratings of Trust (*n* = 89)

Information Source	% Respondents (SE)	Trust Rating ± 95% CI
Family member or friend	56.8 (5.3)	4.3 ± 0.1
TV/radio	44.3 (5.3)	2.8 ± 0.2
Physician/health professional	23.9 (4.6)	4.0 ± 0.2
Professional on aging issues	20.4 (4.3)	4.1 ± 0.2
Colleague or coworker	18.2 (4.1)	3.2 ± 0.2
Car dealership	14.8 (3.8)	3.3 ± 0.4
Library	12.5 (3.5)	4.1 ± 0.3
Transportation professional	12.5 (3.5)	4.0 ± 0.3
Community center personnel	11.4 (3.4)	3.8 ± 0.4
Attend class or lecture	10.2 (3.2)	4.0 ± 0.3
Religious clergy (e.g., pastor, rabbi, imam)	10.2 (3.3)	4.1 ± 0.4
Don't know	17.0 (4.0)	*
Refused	1.1 (1.1)	*
Other	15.9 (3.9)	4.2 ± 0.3

* No rating given

Respondents provided the following other sources presented verbatim:

- AAA
- Agency
- Garmin GPS
- Government sources
- Newspaper
- Organization trying to get your county trying to support other transportation

- Clients
- Community action agency
- Internet
- Kykak
- Neighbors
- News paper
- Newspaper media and publications and common sense
- Secretary of state booklets

The final set of questions related to awareness of the SDSO strategy and use of the website. Respondents ($n = 220$) were asked if they had heard of or come across the phrase *Safe Drivers Smart Options: Keys to Lifelong Mobility*. Only 6% ($n = 13$) of all respondents were aware of the strategy slogan and tag line. Those who were aware of the phrase were asked where they had heard it (with respondents allowed to select more than one source). About 46% reported TV/radio and a family member/friend, 31% reported the Internet, and about 8% reported several other sources (colleague/coworker, community center personnel, class/lecture, clergy, and senior center). When told about the *Safe Drivers Smart Options* website, only one respondent reported having visited the website and this respondent had only visited it a few times in the past year.

One purpose of this study was to determine any changes in awareness from the similar surveys conducted in 2016 (both reported in Eby et al., 2016). Table 7 shows these comparisons.

Table 7: Changes in Awareness of the SDSO Strategy Slogan and Website from 2016 to 2023.

	2016 Wave 1 n=250	2016 Wave 2 n=250	2023 n=220
Aware of the phrase <i>Safe Drivers Smart Options: Keys to Lifelong Mobility</i>	6%	9%	6%
Visited SDSO website	0%	0%	0.4%

Two-proportion z-tests found no differences between the 2016 Wave 1 survey and the 2023 survey or between 2016 Wave 2 survey and the 2023 survey for awareness of SDSO (2023 vs 2016 Wave 1 phrase: $z = -0.0415$, $p = 0.97$; 2023 vs 2016 Wave 2 phrase: $z = -1.1912$, $p = 0.23$) or having visited the website (2023 vs 2016 Wave 1 website: $z = 1.0671$, $p = 0.28$; 2023 vs 2016 Wave 2 website: $z = 1.0671$, $p = 0.28$).

Caregiver Survey

As described previously, the caregivers/family member sample consisted of Michigan residents aged 45-80 who provided unpaid transportation assistance to a Michigan resident aged 60 or older. This survey was conducted by Escalent at the same time as the older adult survey following identical procedures, with the exception that all respondents had to pass the screening questions to determine that they were a caregiver for an older adult.

Because UMTRI did not know ahead of time the distribution of caregivers among Michigan residents ages 45-80, UMTRI needed to weight the survey results to make them more representative of Michigan caregivers, as UMTRI did in the 2016 surveys (Eby et al., 2016). Data from a recent AARP report (AARP and National Alliance for Caregiving, 2020) were used to obtain national estimates of the distribution of caregivers by age and sex. These data were used to develop weights by each age/sex category as shown in Table 8. The weighted analyses were conducted using Proc SurveyFreq and Proc SurveyMeans in SAS 9.4.

Table 8: Weighting for the SDSO Caregivers/Family Members Survey

	Population: AARP National Caregivers Survey 2020	Sample: SDSO Caregivers Survey	Weight
Male, Age 45-49	5%	1%	5.000
Female, Age 45-49	8%	8%	1.000
Male, Age 50-64	21%	16%	1.313
Female, Age 50-64	33%	15%	2.200
Male, Age 65-74	8%	16%	0.500
Female, Age 65-74	12%	22%	0.545
Male, Age 75+	5%	7%	0.714
Female, Age 75+	7%	13%	0.538

The caregivers/family members’ survey consisted of 189 respondents (59% women; 38% men; 1% nonbinary or preferred not to self-describe; and the rest either did not know or refused to answer). The majority of respondents reported their race as White (72%), with 19% reporting Black/African American, 4% reporting American Indian, 3% reporting Asian, and the rest (5%) reported other or refused to answer. Note that respondents could report more than one race. Respondents reported their education levels with 14% reporting a high school diploma (or equivalent) or less, 23% reporting a vocational certificate or some college, 37% reporting an associate or bachelor’s degree, and 24% reporting a graduate degree. More than one-half (60%) were married or living with a partner, 12% were widowed, 12% were separated or divorced, and the rest (14%) were either never married or refused to answer. Household income was well distributed with 7% reporting less than \$20K, 25% reporting between \$20K and \$50K, 16% reporting between \$50K to \$80K, 7% reporting between \$80K and \$100K, and 18% reporting \$100K or more. One-quarter refused to answer and 2% did not know the household income.

On average, respondents provided unpaid transportation assistance to 1.65 ± 0.1 people, with a range from 1-20 people. The survey included several questions about the person and types of assistance for which they provided the most care. Most often, the relationship of the respondent to the care recipient was a spouse or significant other (24%), 20% were friends, 18% were adult children, 17% were parents, 16% were other relatives, and 6% were some other relationship. The care recipient was primarily female (66%; male = 33%), with about 1% reporting other, don’t know, or refused to answer. The average age of the care recipient was 78.6 ± 0.8 years with a range of 60-103 years. Most care recipients were no longer driving (70%) and of those that were still driving, about one-half drove sometimes or rarely and only 14% were reported to be

thinking about stopping driving. Table 9 shows the types of transportation assistance that caregivers reported providing (respondents could report more than one type of assistance).

Table 9: Types of Transportation Assistance Provided by Caregivers and the Percentages of Respondents who Received Each Type of Assistance

Type of Assistance	% Respondents (SE)
I drive them	94.7 (2.1)
I help them arrange transportation	25.5 (3.8)
I share information/resources about continuing to drive safely	24.4 (3.6)
I arrange for rides	20.8 (3.4)
I share information/resources about getting around after stopping driving	14.7 (2.9)
I share information about retiring from driving	12.6 (2.8)
I accompany them on public/community transportation	12.0 (2.6)
Other	7.3 (2.4)

Respondents were asked if they had or were currently seeking information in a variety of areas related to providing transportation assistance for their care recipient. Table 10 shows the percentage of caregivers who reported seeking information by topic (note that respondent could report more than one topic).

Table 10: Percent of Respondents Seeking Information by Topic

Topic	% Respondents (SE)
Organizations that address transportation and aging	23.4 (4.5)
General information about transportation and aging	23.1 (3.6)
Advanced technologies in current or future cars	22.8 (3.4)
How aging affects driving	17.7 (3.2)
Getting around after driving retirement	13.8 (2.7)
State laws and licensing of older drivers	13.8 (2.8)
Reducing or stopping driving	12.9 (2.8)
Evaluating your driving ability	10.9 (2.6)
Driving improvement or refresher courses	5.0 (1.7)
Any other transportation or aging type of information	12.3 (3.0)
None of these topics	48.6 (4.5)

Respondents who reported that they had or were seeking this type of information were asked if they used the Internet and 82% indicated that they did. Of those who used the Internet, the majority used a laptop computer (43%), with 26% reporting using a smartphone, 23% reporting a desktop computer, and 7% reporting using a tablet. Respondent who reported using the Internet for seeking this information were asked what Internet sources they searched and how much they trusted those sources. Table 11 shows the percentages of respondents who reported using various

Internet-based sources of information and their level of trust for that source on a scale of 1 to 5, where 1 was no trust at all and 5 was complete trust.

Table 11: Percentages of Respondents Reporting Using Various Sources of Internet Information and Average Rating of Trust ($n = 84$).

Source of Internet Information	% Respondents (SE)	Trust Rating \pm 95% CI
A general "Google" or other search	88.2 (4.3)	3.2 \pm 0.1
Government agency website	57.7 (6.4)	4.2 \pm 0.1
Professional organization website	46.6 (6.5)	4.2 \pm 0.1
Wikipedia	20.3 (5.2)	4.0 \pm 0.2
Automotive manufacturer website	17.7 (4.8)	4.0 \pm 0.2
Social media (e.g., Twitter, Facebook)	15.2 (4.0)	2.8 \pm 0.1
Automotive dealer website	6.4 (3.3)	3.7 \pm 0.3
Chat room	4.4 (3.1)	2.0 \pm 0.0
Blog	3.5 (2.1)	3.5 \pm 0.4
Other	23.1 (5.3)	4.0 \pm 0.2

Those who reported using other Internet sources provided the following verbatim responses:

- 211 on the computer
- AARP
- Automotive Insurance Co.
- County website on aging
- Educational programs for the community on aging related topics (caregiving, dementia, exercise, health).
- Magazines, I get from AARP with monthly bulletin with information
- Microsoft
- SEMTA buses
- Siri
- The local transportation agency (The senior bus)
- Websites of Medicine
- County
- Forums
- Hot cars.com, ap news, and the economist magazine
- Info from gm
- Magazines, and very occasionally books
- Physicians' website; tv website suggestion; "place for Mom"
- Topical for aging
- Word of mouth
- Yahoo
- Yahoo; bing;

Respondents who reported that they were currently or had in the past sought information to help them provide transportation assistance, were also asked about non-Internet sources of information. Table 12 shows the percentages of respondents who reported non-Internet sources by type of source and their level of trust for that source on a scale of 1 (no trust) to 5 (complete trust).

Table 12: Percentages of Respondents Reporting Using Various Sources of non-Internet Information and Average Rating of Trust ($n = 93$).

Information Source	% Respondents (SE)	Trust Rating \pm 95% CI
Family member or friend	61.0 (5.8)	4.1 \pm 0.1
Physician or other health professional	43.9 (5.7)	4.5 \pm 0.1
Professional on aging issues	28.1 (5.2)	4.4 \pm 0.1
TV or radio	27.8 (5.0)	3.0 \pm 0.2
Community center personnel	26.9 (5.2)	4.1 \pm 0.2
Colleague or coworker	23.8 (4.9)	4.0 \pm 0.2
Library	21.4 (4.7)	4.3 \pm 0.1
Transportation professional	15.7 (4.3)	4.0 \pm 0.2
Clergy (e.g., minister, imam, rabbi)	14.4 (4.2)	4.3 \pm 0.2
Attend classes or lecture	11.0 (3.8)	4.3 \pm 0.3
Car dealership	8.2 (3.5)	4.0 \pm 0.4
Other source	27.7 (5.4)	4.2 \pm 0.2
Don't know	6.0 (2.3)	*
Refused	2.1 (1.3)	*

* No rating given.

Those who reported using other non-Internet sources provided the following verbatim answers:

- AARP Magazine
- Assisted living places
- Call entities
- Call the VA
- Church
- City website
- DHS office
- Google
- I get mail
- Leukemia Foundation
- Medicare/Medicaid Provider -Aetna
- Newsletters and Magazines
- Referrals
- Senior Services
- Senior center, people from various agencies
- Word of mouth (2 responses)
- Call someone, Talk to the VA Rep

- Community center for aging; police dept.; county DVD on aging;
- Insurance carriers & home nurses
- Magazines
- Online
- People in stores
- Senior groups, insurance company for auto,
- The mail, AARP magazine, a policeman
- Transit agency website

The final set of questions related to awareness of the SDSO strategy and use of the website. Respondents (n = 189) were asked if they had heard of or come across the phrase "*Safe Drivers Smart Options: Keys to Lifelong Mobility*." Slightly more than 10% (n = 17) of all respondents were aware of the strategy slogan and tag line. Those who were aware of the phrase were asked where they had heard it (with respondents allowed to select more than one source). Fifty-five percent reported TV/radio, 32% reported the Internet, 17% reported a professional on aging issues, 12% reported a physician or other health professional, 9% reported a family member or friend, 6% reported the Secretary of State office, and less than 3% reported each of several other sources (class/lecture, clergy, transportation professional, and community center personnel). None mentioned colleagues/coworkers or automotive dealerships, but 20% reported other sources. Respondents reported the following other sources:

- Magazine
- The various agencies
- Word of mouth

When told about the SDSO website, 2% (n = 4) of respondent reported having visited the website and these respondents had only visited it a few times in the past year.

As mentioned for the older adult survey, one purpose of this study was to determine any changes in awareness among Michigan caregivers from the similar surveys conducted in 2016 (both reported in Eby et al., 2016). Table 13 shows these comparisons.

Table 13: Changes in Awareness of the SDSO Strategy Slogan and Website from 2016 to 2023 among Michigan Caregivers

	2016 Wave 1 n=250	2016 Wave 2 n=250	2023 n=220
Aware of the phrase <i>Safe Drivers Smart Options: Keys to Lifelong Mobility</i>	10%	10%	10%
Visited SDSO website	3%	1%	2%

Two-proportion z-tests found no differences between 2016 Wave 1 survey and the 2023 survey or between 2016 Wave 2 survey and the 2023 survey for awareness of SDSO (2023 vs 2016 Wave 1 phrase: $z = -0.4132, p = 0.68$; 2023 vs 2016 Wave 2 phrase: $z = -0.5185, p = 0.60$) or having visited the website (2023 vs 2016 Wave 1 website: $z = -0.6543, p = 0.52$; 2023 vs 2016 Wave 2 website: $z = 0.3879, p = 0.70$).

Professionals Survey

One hundred eighty four (184) professionals completed the questionnaire between April 1 and June 7, 2023. All respondents reported that their work involved contact with people age 60 or older or their families/caregivers. Respondents were associated with a variety of organizations: health care (30%, $n = 56$), law enforcement (20%, $n = 36$), state government (30%, $n = 30$), services to the aging (19%, $n = 19$), occupational therapy (10%, $n = 19$), community volunteer (5%, $n = 10$; federal government (5%, $n = 9$), educational institution (7%, $n = 3$), non-profit (2%, $n = 3$), planning (1%, $n = 2$), public/private transportation provider (1%, $n = 1$), driving instructor (1%, $n = 1$), attorney (1%, $n = 1$), and safety training (1%, $n = 1$)

Respondents were asked several questions about their job in relation to older adults/caregivers and transportation. Respondents were asked how often they interacted professionally with older adults/families and 41% indicated that they had daily interaction, 28% reported weekly interaction; 13% reported monthly interaction, and 18% reported interactions every few months or less. Respondents were asked about the information that they needed in order to serve the needs of the older adults/families they worked with and could report more than one topic of information. Table 14 shows the percentages of professionals reporting that they needed various information by topic.

Table 14: Percent of Respondents Reporting Needing Information by Topic

Topic	% Respondents
Availability of non-driving transportation options	65.5
Resources to help aging adults retire from driving	65.5
Information for families of aging adults	56.7
Instructions/details on how to refer an older adult to the Secretary of State	42.1
Contact information for agencies	42.1
Types of advanced vehicle technologies that can help older adults drive more safely	40.9
General information about aging and transportation	40.4
Laws and policies regarding aging drivers and/or mobility for aging adults	39.8
Learning how to use advanced automotive technologies	26.9
Forms	12.9
Other	6.8

Respondents that reported “other” provided the following topics presented verbatim:

- Ability to get into and out of a car after being hospitalized.
- Affordable/accurate/reliable way to assess whether older adult is safe to drive. After an older adult is accurately deemed inappropriate for driving, ways to help older adults and their family transition unsafe driver out of driving. Resources for affordable/reliable/timely/trustworthy transportation assistance options for driving impaired elders in rural communities to enable access to basics like medicine, groceries, laundry facilities.

- I test cognition, vision (oculomotor), and physical abilities to assess safety on the road.
- Info about how seniors can access ride sharing services without a smart phone or computer literacy (Lyft, Uber, etc.).
- Information regarding senior transportation for limited ability/disability.
- Name and DOB.
- Primarily do taxes for elderly.
- Unsure how to answer this question as I am versed in each of these areas and work weekly with each one.
- Partners to engage with.
- People willing to transport, transporting those with impaired mobility.

Respondents were asked where they acquired the information that they need in their job related to older adults/families and transportation. Table 15 shows the percentages of professionals reporting where they acquired information, and more than one source could be reported that they needed various sources information by topic.

Table 15: Percent of Respondents Reporting Various Information Sources

Topic	% Respondents
Website from a professional organization	55.8
Other colleague/co-worker	53.3
Government website	45.4
Supervisor/employer	37.0
Training session	21.8
Resource office	7.3
Vehicle owner’s manual	4.2
TV or radio	4.2
Library	2.4
Automotive dealership	0.6
Other	10.9

Respondents that reported “other” provided the following sources:

- AARP.
- ADED The Association for Driver Rehabilitation Specialists.
- Commission on aging, but resources are very limited, not available nor timely for new/urgently needed antibiotics such as for urinary tract infection, where client may go septic if they don't get medicine.
- Community organizations.
- Internet searches.
- Internet. Senior Services in client’s community.
- Local bus/public transportation authority.
- My previous outpatient position where I specialized in driver rehabilitation. We had resources and assessments I would use to assess in clinic safety then refer to complete an on the road test if applicable.

- Phone to State Analysts.
- Registration process.
- Safe Drivers Smart Options website.
- Trauma Services Department.
- Referral to occupational therapy driving program.

The questionnaire asked respondents about the primary technology that they used to access the Internet and websites for their work-related information seeking. About one-half (52%) reported using a laptop computer, 31% reported using a desktop computer, 13% reported using a smartphone, 2% used a tablet, and the rest (2%) did not use the Internet for work.

The survey included questions regarding the SDSO strategy. Respondents were asked if they had heard the phrase *Safe Driver Smart Options: Keys to Lifelong Mobility* in the past 12 months. Overall, 20% ($n = 33$) of respondents reported having heard this phrase. Those who reported having heard the phrase were also asked where they heard it and 32 respondents answered as shown in Table 16.

Table 16: Percent of Respondents Reporting Where they Heard the SDSO Slogan and Tagline by Source

Source	% Respondents
Colleague/co-worker	59.4
Transportation professional	37.5
Aging professional	15.6
From the Internet	12.5
Class or lecture	12.5
Physician or other health professional	6.2
Family member or friend	3.1
Care recipient, TV/radio, automotive dealership	0
Other	21.7

Respondents that reported “other” provided the following sources:

- On the SDSO committee.
- Work.
- When started new job.
- Documents at work.

Respondents were shown the *Safe Drivers Smart Options* logo and asked if they had seen the logo in the past 12 months and 25% ($n = 44$) reported that they had. Those that reported seeing the logo were asked where they encountered it and 73% reported on printed materials such as a brochure or bookmark, 71% reported on a website, and 5% reported in a video. All respondents were provided with a description of the *Safe Drivers Smart Options* website and asked if they had ever visited it and 17% ($n = 29$) reported that they had. Respondents that had visited the website were asked how often they visited it the past 12 months. More than 60% reported no more than a few times, 24% reported once a month, 7% reported once a week, 3% reported

several times a day. Finally, respondents were asked if there was anything else about the SDSO website they wished to share and provided these comments:

- No, Nothing, Not at this time, NA.
- Stop wasting money on your incompetent decisions.
- Have found "The Hartford" "We need to talk...Family conversations with older drivers" helpful in transitioning some elders/families to ease unsafe elder out of driving.
- This population also needs information on wheelchair transportation that doesn't cost them a lot out of pocket.
- There need[s] to be more programs available in rural areas.
- Unless I missed it, I didn't see a link for the program.
- I often forget about it. It needs to be advertised more.
- Spread the word, it is not a known resource.
- I have never heard of SDSO, I would find a way to better educate the public.
- I have never heard of it before.
- Never heard of this website, wish I had learned about this earlier; also accessibility for patients with vision impairment would be important.
- Never saw this, will check it out.
- No, I'd like to learn more.
- No, thank you for teaching me about this resource.
- I will check out that website.
- Many of us in the "industry" know the information contained therein, so going to it may be infrequent, but I am aware of the general content and will use it to explore a topic further from time to time.
- I find it to be a very useful website.
- I ordered the booklets for my clients.
- Useful and informative.
- It is very helpful.

As mentioned for the older adult and caregiver survey, one purpose of this study was to determine any changes in awareness among Michigan's aging and transportation professionals from the similar surveys conducted in 2016 (both reported in Eby et al., 2016). Table 17 shows these comparisons. As shown in this table, all three awareness measures showed significant decreases in awareness in 2023 as compared to 2016.

Table 17: Changes in Awareness of the SDSO Strategy Slogan and Website from 2016 to 2023 among Michigan Aging and Transportation Professionals

	2016 Wave 1 n=289	2016 Wave 2 n=169	2023 n=184
Heard the phrase <i>Safe Drivers Smart Options: Keys to Lifelong Mobility</i> in the past 12 months	37%*	40%*	20%
Saw SDSO logo in the past 12 months	45%*	50%*	25%
Visited SDSO website	22%	28%*	17%

*Significantly greater than 2023 based on two-proportion z -tests: phrase 2016 Wave 1 ($z = -4.4340, p < .0001$); logo 2016 Wave 1 ($z = -4.6327, p < .0001$); phrase 2016 Wave 2 ($z = 4.6315, p < .0001$); logo 2016 Wave 2 ($z = -5.1421, p < .0001$); website 2016 Wave 2 ($z = -2.7515, p = .01$).

Conclusions

This report presents the findings from three surveys conducted with samples of people who are the target audiences for the SDSO strategy being implemented in Michigan: older adults, caregivers (family members/friends); and professionals who work with these groups on aging and transportation-related issues. The primary purpose of the surveys was to assess awareness of the SDSO strategy and website, with secondary purposes of gaining a better understanding of what information target audiences are seeking, how they seek this information, and their thoughts about the website/strategy. Several conclusions can be drawn from these results:

- *Awareness of the SDSO strategy phrase and website is low and has stayed the same or decreased since the 2016 surveys.* Only 6% of older adults and 10% of caregivers had heard the *Safe Drivers Smart Options: Keys to Lifelong Mobility* slogan and tagline in the current survey and very few people in either group had visited the website, which did not differ significantly from the awareness surveys conducted in 2016. Awareness of the SDSO strategy, logo, and website was highest for the professionals: 20% had heard of SDSO, 25% had seen the logo, and 17% had visited the website. However, all of these awareness measures were significantly lower than in 2016. These results show that the current efforts to promote SDSO are failing somewhat to reach the target audiences for which the strategy was intended, and that new marketing efforts and approaches might be necessary to raise awareness of SDSO among Michigan residents. It is encouraging that many of the professional respondents who were unaware of the strategy prior to completing the survey, mentioned the value of the website and commented on its potential value and the need for better advertisement.
- *Older adults, caregivers, and professionals are interested in having information about advanced driver assistance systems (ADAS).* Of all topics reported by older adults in Michigan, information about advanced technologies in a current or future vehicle was reported more than twice as often as the most frequently reported topic. Caregivers, as well, reported information about ADAS as one of the most frequent topics sought. About 41% of Michigan professionals reported that they sought information about types of advanced vehicle technologies that can help older adults drive more safely, although several other topics were more frequently mentioned. These findings suggest that the SDSO website should include information about ADAS and older drivers. Indeed, as a separate part of the present project, UMTRI is developing a list of resources and several new resources to be included on the SDSO website (Eby et al., 2023a, 2023b, 2023b).
- *Use of the Internet to find transportation and aging related information is increasing for both older adults and caregivers.* In 2016, about 45% of older adults and about 67% of caregivers reported using the Internet to seek information related to transportation and

older adults. In the present survey, 61% of older adults and 82% of caregivers reported using the Internet to seek this information. Given that the SDSO strategy largely depends on the Internet for providing information and resources, this finding supports the longevity of the SDSO strategy and website.

- *The transportation-related information that the three groups seek is generally available on the SDSO website.* Excluding ADAS, the top types of information being sought by 10% or more of older adults and/or their caregivers were: general information about transportation and aging; how aging affects driving; organizations that address transportation and aging; getting around after driving retirement; state laws and licensing of older drivers; reducing or stopping driving; and evaluating your own driving ability. Each of these types of information is addressed in the SDSO strategy and website. For professionals, the top seven types of information sought, excluding ADAS, were: availability of non-driving transportation options; resources to help aging adults retire from driving; information for families of aging drivers; instructions/details of how to refer an older adult to the Secretary of State office; contact information for agencies; laws and policies regarding aging drivers; and/or mobility for aging adults. The SDSO website also contains resources related to these topics. These findings, which were similar to those in 2016, support the utility and value of the SDSO strategy.
- *The primary types of assistance given by Michigan caregivers is related to getting older adults to and from destinations.* Nearly all caregivers (95%) reported that they drove older adults around and 47% also reported that they help to arrange rides. These findings show that the SDSO website, particularly the “find a ride” section of the website, is providing the type of information that Michigan caregivers may need.

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