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Driving self-regulation and ride service utilization in a multicommunity, multistate sample of U.S. older adults

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Abstract

Objectives: This study examined a multicommunity alternative transportation program available 24 hours a day, 7 days a week, for any purpose, offering door-through-door service in private automobiles to members who either do not drive or are transitioning away from driving. Specific aims were to describe the characteristics of members by driving status and ride service usage of these members.

Methods: Data came from administrative records maintained by a nonprofit ride service program and include 2,661 individuals aged 65+ residing in 14 states who joined the program between April 1,2010, and November 8,2013. Latent class analysis was used to group current drivers into 3 classes of driving status of low, medium, and high self-regulation, based on their self-reported avoidance of certain driving situations and weekly driving frequency. Demographics and ride service use rate for rides taken through March 31, 2014, by type of ride (e.g., medical, social, etc.) were calculated for nondrivers and drivers in each driving status class.

Results: The majority of ride service users were female (77%) and aged 65–74 years (82%). The primary method of getting around when enrolling for the transportation service was by riding with a friend or family member (60%). Among the 67,883 rides given, nondrivers took the majority (69%) of rides. Medical rides were the most common, accounting for 40% of all rides.

Conclusions: Reported ride usage suggests that older adults are willing to use such ride services fora variety of trips when these services are not limited to specific types (e.g., medical). Further research can help tailor strategies to encourage both nondrivers and drivers to make better use of alternative transportation that meets the special needs of older people.

Keywords

Driving; aging; older adult; motor vehicle; mobility; self-regulation; older driver; senior transportation

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Introduction

The U.S. population aged 65 years and older is expected to double from 47.8 million in 2015 to 98.2 million by 2060 (U.S. Census Bureau 2014)—and an estimated 1 in 4 older adults will live into their 90s. The majority of older adults are continuing to drive, with 89% of men and 73% of women 65 years and older reporting driving in 2009 (Lynott and Figueiredo 2011). However, physical changes that occur with age, including visual impairment and mobility limitations, can reduce older adults' ability to drive safely. As a result, many older adults stop driving (Dellinger et al. 2001) and others self-regulate by decreasing their driving frequency or avoiding certain driving situations (Adler and Rottunda 2006; Molnar and Eby 2008; Unsworth et al. 2007). Some use driving selfregulation as a way to transition away from driving, whereas others stop driving without ever transitioning (Gwyther and Holland 2012).

Older adults who have stopped or limited their driving can also be limited in their access to goods and services as well as social contacts (Satariano et al. 2012; Spinney et al. 2009). Alternative transportation options could provide another way to get around. Public transportation is not widely available in suburban or rural areas; even when available, seniors are unlikely to use public transportation if they never used it when they were younger (Rosenbloom 2013). Many consider public transportation inconvenient and not responsive to their travel needs (Adler and Rottunda 2006; Hendrickson and Mann 2005). Older adults also shy away from conventional taxi services, which they consider expensive and unsafe (Johnson 1999; Oxley and Whelan 2008).

In this exploratory study, we sought to contribute to an understanding of how older adults use an alternative transportation service designed to resemble private motor vehicle use by examining data from a multistate organization that provides such a service in many geographic locations in many states. Specific aims of the study were to describe the characteristics of older adult members of the service by driving status and ride usage of these members by driving status.

Methods

Data for this study were obtained from ITNAmerica (http://www.itnamerica.org), the national headquarters of a network of over 20 affiliated, independent, nonprofit ride service programs currently located in 21 states around the United States. These programs offer on-demand, door-through-door transportation services for any ride purpose to seniors (age of eligibility varies between 60+ and 65+ by affiliate) and adults of any age with visual impairments. Details on this program including participating cities and membership terms have been previously described (Freund and McKnight 1997; Wolk 2007).

Individuals who wish to use the ride service complete a detailed Application for Transportation Services, which is retained in a proprietary database, ITNRides. The application collects information on demographic characteristics (i.e., age, gender, and marital status, along with living and dwelling arrangements), visual impairments, use of assistive devices (i.e., cane, walker, or wheelchair), and special health needs (i.e., anxiety

disorder, deaf, or bladder or bowel control problems). If applicants are still driving at the time they complete the application, they are asked about driving frequency (measured as less than once a week; 1–2 days per week; and 3 or more days per week) and avoidance of 7 driving situations (nighttime, highway, left turns, bad weather, alone, high traffic, and unfamiliar areas). For each of these 7 driving situations, response options include always, sometimes, or never avoid. Applicants who do not drive are asked to give reasons from a list that includes options such as never licensed, traffic accident, do not feel safe, doctor's orders, illness, and family request. They may select more than one reason.

In anticipation of research uses, the Application for Transportation Service includes an Informed Consent page that applicants sign. This project received an exemption from institutional review board review from the Office of Research Integrity and Outreach at the University of Southern Maine.

Our initial sample included all individuals aged 65 and over who joined an ITN affiliate between April 1, 2010, and November 8, 2013. This represented a total of 3,023 individuals from 20 affiliates in 14 states. This study excluded individuals younger than 65 and those who reported being blind, those who reported having Alzheimer's or other forms of dementia, and those who had data missing for key variables. The final sample (N = 2,661) includes 874 people who were still driving at the time they joined an ITN affiliate, 1,653 former drivers, and 134 people who never held a driver's license. The number, percentage, and 95% confidence interval were calculated by demographic and transportation variables for the total sample, those who took a ride using the service (n = 2,094), and those who did not take a ride (n = 567). The overall sample was compared with the national census for selected characteristics.

Among the 874 participants who reported that they were still driving, latent class analysis was used to characterize driving status using reported driving frequency and avoidance of the 7 driving situations. We determined the optimal number of latent classes based on a balance of fit, parsimony, and interpretabil-ity using the deviance statistic G^2, the Akaike information criterion, and the Bayesian information criterion to assess model fit (Lanza et al. 2003). We selected a 3-class model because it had the lowest Bayesian information criterion and could also be assigned meaningful labels for classes. The 3 classes were low self-regulation (drivers who do not often avoid the 7 driving situations and drive frequently), high self-regulation (drivers who often avoid driving in the 7 driving situations and do not drive frequently), and medium self-regulation (drivers who are in between the other 2 classes). Additionally, the 1,787 nondrivers were included as a fourth driver status.

Ride services covered the period April 1, 2010, through March 31, 2014. Ride service data are automatically recorded in the ITNRides database when the ride is taken. Affiliate ride coordinators use a system of 61 discrete ride types, which are aggregated into 11 ride purpose groups (medical, consumer, social, religious, recreational, employment, volunteer, general, education, intermodal, professional services). To assure adequate numbers in each analytic cell, we grouped rides taken for religious and recreational purposes into the social rides category; grouped rides for employment, education, and volunteer work into the employment category; and grouped rides for general, intermodal, and professional services

into an “other” category. Person-months were calculated for each member beginning with the time they joined an ITN affiliate through March 31, 2014, which was the end of the study period. The person- months for the 567 individuals who never used the ride service were excluded. Annual use rates were calculated within driver status by demographic variables and for total by dividing the total number of rides taken in each category by the total number of person-months in each category and multiplying by 12. Within driver status, annual use rates and 95% confidence intervals for the rates were calculated for ride purpose (e.g., medical or social rides) by age group (65–84,85 and over). For this calculation, ages were grouped into 65–84 and 85 and over to ensure a sufficient sample size in each cell.

Results

Women comprise three quarters of the riders (77%); a similar proportion (81%) is aged 75 years and older (Table 1). About 73% of riders were widowed, divorced, or single, and 64% lived alone. Regardless of their living arrangements, 63% of all applicants still lived in private homes at the time they completed their Applications for Transportation Service. Most (93%) of the sample was white. Compared to the U.S. older adult population, the sample was significantly more likely to be female, older, widowed, divorced or single, and white. When enrolling for the transportation service, the primary means of getting around for the majority (60%) was riding with a friend or family member, followed by driving themselves (30%). Half of the riders used an assistive device (cane, walker, or wheelchair) to support their mobility. Almost a fifth (19%) of riders required driver assistance (e.g., folding walkers, carrying packages, offering an arm, buckling a seat belt, opening doors), and 16% were visually impaired. A higher proportion of those who took a ride with the service, when compared to those who did not, were female (77% vs. 70%), widowed/divorced/single (73% vs. 65%), lived alone (64% vs. 58%), and lived in independent retirement communities (22% vs. 17%).

Of the 2,661 study participants, 567 (21%) took no rides, and the remaining 2,094 took 67,883 rides during the study period (data not shown) at a rate of 16.2 rides/person-year (Table 2). Five people had an annual ride rate over 500 rides per person-year, with a maximum of 1,286 rides/person-year, and 16% of the sample had less than 1 ride/person-year (data not shown). High self-regulating drivers and nondrivers had the highest ride rates, 17.4 and 16.8 rides/person-year, respectively, followed by low and medium self-regulating drivers (14.5 and 13.6 rides/person-year, respectively). Females had significantly higher ride rates for all classes of driver except nondrivers. Those who were 75–84 years had the highest overall rate (18.7 rides/person-year) compared to those 65–74 years (13.4 rides/person-year) and those 85 years and over (15.5 rides/person-year). The highest annual rates were 23 rides/person-year for nondrivers who used a private service as their main form of transportation and 23.9 and 27.7 rides/person-year for medium and low self-regulating drivers who had other dwelling arrangements.

Among nondrivers, reasons for not driving differed by gender (Figure 1). The leading cause for women was not feeling safe (24%), whereas that for men was doctor’s orders (19%). Only 5% of women and 4% of men gave traffic accident as a reason, and 2% of women and

4% of men reported having their license revoked. Illness was a factor for 11% of women and 19% of men.

Medical rides were the most frequent overall type for each age group, with 5.9 rides/person-year for ages 65–84 and 6.7 rides/person-year for ages 85 and over (Table 3). Social and consumer rides were the second and third most frequent overall type. This pattern was consistent for all groups with the exception of high self-regulating drivers aged 85 years and over, whose most common type of ride was social followed by medical and consumer. Riders 65–84 years had a significantly higher rate of rides (16.8 rides/person-year) compared to those 85 years and over (15.5 riders/person-year) and had higher ride rates for every category except for medical.

Discussion

This study documented nearly 68,000 rides taken by older adults over a 4-year period, providing evidence of their willingness to use this type of transportation service. Findings suggest that an alternative transportation service for older adults that offers characteristics similar to private automobile ownership is a feasible option for older adults to maintain mobility. The adults who used this service were more likely to be older compared to the U.S. older adult population, female, and not married or partnered. This finding is consistent with the characteristics of nondriving older adults in other studies (D'Ambrosio et al. 2008; Dellinger et al. 2001; Donorfio et al. 2008; Kostyniuk and Shope 2003; Oxley and Charlton 2009). Though nondrivers took the majority of rides in the current study, members who still reported driving also used the ride service. This indicates that older drivers of different driving statuses benefit from this transportation alternative.

Older adults used this rideshare service for just over 16 rides on average annually. In 2009 (the latest year of data available), older adults reported 1,230 annual trips on average (USDOT, 2016). However, our study sample is likely in poorer health with more mobility limitations than the average older adult and therefore might not take the same average annual number of rides. A small number of members took over 500 rides/person-year, which, given the average annual number of reported older adult rides, means that these members were using the ride service for 40% or more of their rides. The transportation service in this study was designed to overcome barriers of other forms of transportation mentioned by older adults, including but not limited to having to walk to get to a bus, the expense of a taxi cab, and not having others available to give a ride when needed (Coxon and Keay 2015). However, most members likely do not use the service for the majority of their rides. Qualitative studies to better understand transportation decisions could optimize this and other older adult transportation services. Additionally, looking at members' ride usage over time could help determine whether annual rates increase as members become more familiar with this type of alternative transportation.

Medical rides were the most common type of ride taken, followed closely by social rides and consumer rides, showing that older adults are willing to use ride services for a variety of trips when these services are not limited to specific types (e.g., medical). In a previous study (Collia 2003), the most common destination of older adults, regardless of the transportation

method used, was social/recreational (19.4%), followed by shopping (18.3%), with medical/dental accounting for just 2.6% of daily travel. Though social and consumer rides were the second and third most common type of rides taken using the service in the present study, rides for medical purposes accounted for 40% of all rides and the overall rate was significantly higher than the rate for any other single type of ride. Contrary to expectations expressed in earlier studies (Rudman et al. 2006; Yassuda et al. 1997), it appears that a substantial proportion of people who enroll in an alternative transportation service do not use it to meet all of their transportation needs. Earlier studies also showed that engaging in activities out of the home and socializing are related to a better quality of life for older adults (Ravula-parthy et al. 2013) and that driving cessation is associated with a moderate to severe impact on the older adult's family or caregivers (Azad et al. 2002). This study showed that, though older adults use a door-through-door transportation service for social and consumer rides, they are more likely to use the service for medical rides. This may indicate that the decision process about how to travel and for what purpose is more complex than previously understood.

Our study has limitations. The sample is not representative of the larger population of older adults but is representative of the members enrolled in the 20 geographically dispersed ITN affiliates that participated in the study. Data used to assess demographics and driving status were self-reported at the time individuals applied for services and the rides data were collected over a period of time from enrollment until the cutoff date for this study (April 1,2010-March 31,2014). Enrollment date and the end of the study (March 31, 2014) were used to determine person-months. As a result, death, relocation, long-term hospitalization, and other events were not accounted for in these analyses. If present, these censoring events would result in an overestimation of person-months and an underestimation of annual ride rates.

This study reports on the frequency and purpose of a single kind of alternative transportation use among older adults. The population aged 65 years and older is projected to double by 2060. Given that a growing number of older adults will live to see a time when they can no longer drive, it is important to explore transportation options that are both feasible and acceptable to older adults. Future research could explore how and why older adults either use or do not use such alternative transportation services, the impact of those services on families and adult children, the impact on quality of life for older adults and their families, and the connectionbetween alternative transportation, driving status, and other significant life transitions. Findings could be used to inform strategies to increase use and availability of such alternative transportation services and, as a result, provide more safe transportation options.

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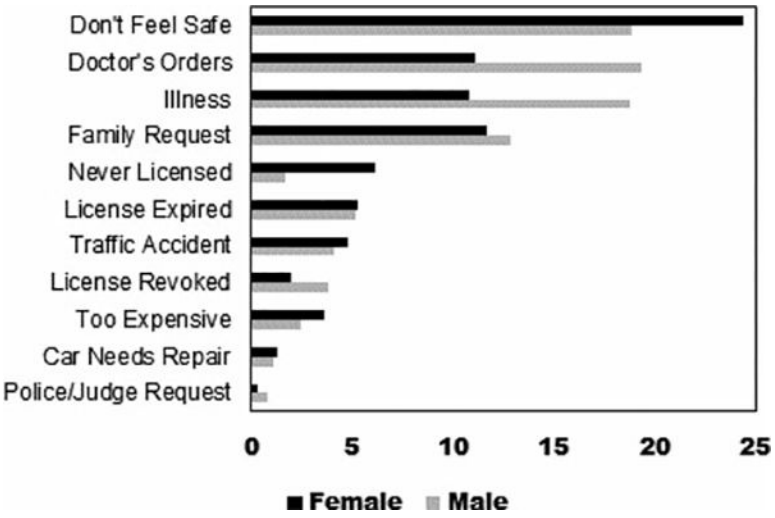

Figure 1.

Reasons for not driving by gender among nondriving adults aged 65 and over enrolled in an alternative transportation program. Participants could check multiple reasons for not driving.

Table 1.

Demographic and other characteristics of adults aged 65 and older enrolled in an alternative transportation program compared to the 2010 U.S. Census (*n* = 2,661).

	Overall (*n* = 2,661)			Riders (*n* = 2,094)			Nonriders (*n* = 567)			2010 U.S. Census	
Characteristic	***N***	**%**	**95% CI[a]**	***N***	**%**	**95% CI[a]**	***N***	**%**	**95% CI[a]**	***N* (1,000s)**	**%**
Sex[b]											
Female	1,999	75	74–77	1,603	77	75–78	396	70	66–74	21,820	57
Male	662	25	23–27	491	23	22–25	171	30	26–34	16,793	43
Rider age											
65–74	491	18	17–20	396	19	17–21	95	17	14–20	20,956	54
75–84	904	34	32–36	698	33	31–35	206	36	32–40	12,964	34
85+	1,266	48	46–49	1,000	48	46–50	266	47	43–51	4,693	12
Marital status[b]											
Married/partnered	751	29	27–31	556	27	25–29	195	35	31–39	21,747	56
Widowed/divorced/single	1,859	71	69–73	1,496	73	71–75	363	65	61–69	16,867	43
Race											
White	2,417	93	92–94	1,900	93	92–94	517	92	90–95	33,414	87
African American	78	3	2–4	64	3	2–4	14	2	1–4	3,405	9
Other	110	4	3–5	81	4	3–5	29	5	3–7	1,794	5
Living arrangemen[b]											
Live alone	1,637	63	61–64	1,314	64	62–66	323	57	53–62		
Live with someone	981	37	36–39	742	36	34–38	239	43	38–47		
Dwelling arrangement											
Private home	1,638	63	61–65	1,269	62	60–64	369	66	62–70		
Independent–retirement[b]	558	21	20–23	461	22	21–24	97	17	14–21		
Assisted living	180	7	6–8	128	6	5–7	52	9	7–12		
Other	237	9	8–10	197	10	8–11	40	7	5–9		
Primary means of transpor[c]											
Ride with family/friend	1,595	60	58–62	1,248	60	57–62	347	61	57–65		
Drive	797	30	28–32	619	30	28–32	178	31	28–35		

Characteristic	Overall (*n* = 2,661)			Riders (*n* = 2,094)			Nonriders (*n* = 567)			2010 U.S. Census	
	N	%	95% CI[a]	*N*	%	95% CI[a]	*N*	%	95% CI[a]	*N* (1,000s)	%
Walk	392	15	13–16	312	15	13–16	80	14	11–17		
Public transportation	239	9	8–10	203	10	8–11	36	6	4–8		
Taxi	239	9	8–10	203	10	8–11	36	6	4–8		
Private service	120	5	4–5	99	5	4–6	21	4	2–5		
Other	189	7	6–8	156	7	6–9	33	6	4–8		
Special needs/mobility assistanc[c]											
Assistive device use[d]	1,341	50	48–52	1,043	50	48–52	298	53	48–57		
Driver assistance	513	19	18–21	410	20	18–21	103	18	15–21		
Visually impaired	406	15	14–17	335	16	14–18	71	13	10–15		
No high vehicle	365	14	12–15	283	14	12–15	82	14	12–17		
Special health needs[e]	278	10	9–12	223	11	9–12	55	10	7–12		
Full-size vehicle[f]	106	4	3–5	75	4	3–4	31	5	4–7		
Personal assistant	51	2	1–2	40	2	1–2	11	2	1–3		

Source: ITN Application for Transportation Service, U.S. Census (http://www.itnportland.org/).

[a] CI = Confidence interval.

[b] 95% Confidence intervals do not overlap between those who took rides and those who did not.

[c] Respondents could select multiple answers.

[d] Includes cane, walker, and wheelchair.

[e] Includes deaf, bladder control, and anxiety disorder.

[f] Full-size vehicles are required for older adults with large assistive devices such as wheelchairs.

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Table 2.

Rate of rides taken by adults aged ≥65 years (n = 2,094) by demographics and driving status, 2010–2014, ITNAmerica.

	Nondrivers (n = 1,407)		High self-regulation (n = 183)		Medium self-regulation (n = 327)		Low self-regulation (n = 177)		Overall (n = 2,094)	
Characteristic	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**
Total	16.8	16.7–17.0	17.4	17.0–17.8	13.6	13.3–13.9	14.5	14.1–14.9	16.2	16.0–16.3
Sex										
Female	16.8	16.7–17.0	18.0	17.5–18.4	13.8	13.5–14.1	15.1	14.6–15.5	16.3	16.2–16.4
Male	16.8	16.5–17.1	14.0	13.0–15.0	12.7	12.1–13.3	13.3	12.6–14.0	15.7	15.5–15.9
Age										
65–74	12.7	12.4–13.0	16.9	15.6–18.3	16.0	15.2–16.8	13.8	13.0–14.5	13.4	13.1–13.6
75–84	19.3	19.0–19.6	20.5	19.7–21.4	15.3	14.8–15.8	19.3	18.4–20.1	18.7	18.5–18.9
85+	16.8	16.6–17.1	15.8	15.3–16.3	11.8	11.4–12.2	12.0	11.4–12.5	15.5	15.3–15.6
Race										
Caucasian	17.0	16.8–17.2	16.8	16.4–17.3	13.9	13.7–14.2	14.7	14.3–15.1	16.3	16.1–16.4
African American	13.3	12.6–14.0	—	—	—	—	—	—	14.1	13.4–14.8
Other	12.5	11.9–13.2	—	—	—	—	—	—	13.3	12.8–13.9
Marital status										
Single, widowed, divorced	17.3	17.1–17.5	18.1	17.6–18.6	13.7	13.3–14.0	14.7	14.2–15.1	16.5	16.4–16.7
Partnered	16.0	15.7–16.3	15.4	14.6–16.3	14.0	13.5–14.5	12.3	11.6–13.0	15.3	15.1–15.5
Living arrangement										
Live alone	17.5	17.3–17.7	20.6	20.0–21.1	13.3	12.9–13.6	14.4	13.9–14.9	16.8	16.7–17.0
Live with someone	14.9	14.6–15.1	11.1	10.5–11.7	13.4	12.9–13.9	14.8	14.2–15.5	14.3	14.2–14.5
Dwelling arrangement										
Private home	17.2	17.0–17.4	17.2	16.7–17.7	12.3	12.0–12.6	14.1	13.6–14.6	16.0	15.9–16.2
Independent–retirement	17.3	16.9–17.6	21.6	20.4–22.9	12.2	11.6–12.7	10.2	9.5–11.0	16.1	15.8–16.3
Assisted living	16.4	15.9–17.0	—	—	—	—	—	—	16.7	16.2–17.2
Other	13.3	12.9–13.8	—	—	23.9	22.5–25.4	27.7	26.1–29.3	16.4	15.9–16.8
Primary means of getting around[b]										
Drive	17.6	16.9–18.3	18.4	17.9–18.9	13.1	12.8–13.4	14.5	14.1–14.9	15.0	14.8–15.2
Ride with family or friends	16.9	16.8–17.1	17.0	16.4–17.5	16.9	16.4–17.4	15.1	14.3–15.9	16.9	16.7–17.0

Characteristic	Nondrivers (*n* = 1,407)		High self-regulation (*n* = 183)		Medium self-regulation (*n* = 327)		Low self-regulation (*n* = 177)		Overall (*n* = 2,094)	
	Rate	95% CI[a]	Rate	95% CI[a]	Rate	95% CI[a]	Rate	95% CI[a]	Rate	95% CI[a]
Walk	14.1	13.8–14.5	12.0	11.0–12.9	12.9	12.2–13.7	10.0	9.2–10.8	13.4	13.1–13.7
Private service	23.0	22.2–23.7	—	—	—	—	—	—	20.0	19.4–20.6
Taxi	16.9	16.4–17.3	—	—	17.1	16.0–18.2	—	—	17.5	17.0–17.9
Public transport	16.2	15.8–16.6	—	—	—	—	—	—	16.2	15.8–16.6
Special needs										
Assistive device use[c]	17.2	17.0–17.4	17.0	16.5–17.6	10.7	10.3–11.1	15.7	15.0–16.4	16.3	16.1–16.4
Visually impaired	16.5	16.2–16.9	16.4	15.4–17.5	10.7	10.0–11.4	—	—	15.4	15.1–15.7

[a] CI = confidence interval; annual rate = 12 * (Rides taken/Person-months); —indicates suppressed due to small sample size (*n* < 20).

[b] Respondents could select multiple answers.

[c] Includes cane, walker, and wheelchair.

Table 3.

Rate of rides per year by purpose of ride, rider driving status, and age group in a transportation service for older adults, 2010–2014, ITNAmerica.

	Nondriver		High self-regulation		Medium self-regulation		Low self-regulation		Overall	
Type of ride (by age)	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**	**Rate**	**95% CI[a]**
Age 65–84	(*n* = 748)		(*n* = 75)		(*n* = 171)		(*n* = 100)		(*n* = 1,094)	
Medical	5.7	5.6–5.9	8.0	7.6–8.5	5.5	5.3–5.8	6.6	6.2–6.9	5.9	5.8–6.0
Social[b]	5.0	4.8–5.1	2.9	2.6–3.1	5.4	5.1–5.6	5.1	4.8–5.4	4.9	4.8–5.0
Consumer	4.2	4.1–4.3	7.8	7.4–8.3	2.7	2.5–2.8	4.0	3.7–4.3	4.2	4.1–4.3
Employment/education[c]	1.4	1.3–1.5	0.3	0.2–0.4	1.6	1.4–1.7	0.3	0.2–0.4	1.3	1.2–1.3
Other[d]	0.5	0.5–0.6	0.6	0.5–0.8	0.3	0.3–0.4	0.8	0.6–0.9	0.5	0.5–0.5
Total	16.8	16.6–17.0	19.7	18.9–20.4	15.5	15.1–15.9	16.7	16.1–17.3	16.8	16.6–17.0
Age 85+	(*n* = 659)		(*n* = 108)		(*n* = 156)		(*n* = 77)		(*n* = 1,000)	
Medical	7.7	7.6–7.9	4.8	4.5–5.1	4.6	4.4–4.9	6.1	5.7–6.4	6.7	6.6–6.9
Social[b]	4.0	3.9–4.2	5.9	5.6–6.3	3.4	3.2–3.5	2.6	2.3–2.8	4.0	3.9–4.1
Consumer	3.1	3.0–3.2	3.9	3.6–4.1	2.5	2.4–2.7	2.5	2.2–2.7	3.0	3.0–3.1
Employment/education[c]	1.4	1.3–1.5	0.8	0.7–1.0	0.8	0.7–0.9	0.5	0.4–0.7	1.2	1.1–1.2
Other[d]	0.6	0.5–0.6	0.3	0.3–0.4	0.5	0.4–0.6	0.3	0.3–0.4	0.5	0.5–0.5
Total	16.8	16.6–17.1	15.8	15.3–16.3	11.8	11.4–12.2	12.0	11.4–12.5	15.5	15.3–15.6

[a] CI = confidence interval; annual rate = 12 * (Rides taken/Person-months).

[b] Includes rides for religious, recreational, and social purposes.

[c] Includes rides for education, employment, and volunteer work.

[d] Includes rides for intermodal, professional services, and general purposes.