



Special Report from the CDC

Travel-related behaviors, opinions, and concerns of U.S. adult drivers by race/ethnicity, 2010[☆]

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The Journal of Safety Research has partnered with the Office of the Associate Director for Science, Division of Unintentional Injury Prevention in the National Center for Injury Prevention & Control at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, USA, to briefly report on some of the latest findings in the research community. This report is the 31st in a series of CDC articles.

ARTICLE INFO

Article history:

Received 9 September 2013

Accepted 9 September 2013

Available online 1 October 2013

Keywords:

Travel behaviors

Transportation

Race

Ethnicity

ABSTRACT

Introduction: The U.S. population is shifting to become both older and more racially and ethnically diverse. Our current understanding of U.S. drivers' travel-related needs and concerns by race/ethnicity is limited. **Methods:** Data from the 2010 HealthStyles survey, an annual, cross-sectional, national mail-panel survey of persons ages 18 years or older living in the United States, were used to calculate weighted percentages of travel-related behaviors, opinions, and concerns by race/ethnicity. Logistic regression was used to explore associations between race/ethnicity and specific travel-related concerns, while adjusting for other demographic characteristics. **Results:** Adequate transportation alternatives to driving were reported by a greater percentage of persons in certain minority groups compared to whites (Hispanic: 34.7%; white: 23.4%). Concern for the availability of alternatives to driving in the future was greater among minority groups (black: 57.7%; Hispanic: 47.3%; other: 50.9%) compared to whites (37.5%). Additionally, among persons with a household income of \$25,000 +, minorities were generally more likely than whites to report concern about having alternative transportation options to driving, whereas concern was consistently high among all racial/ethnic groups for those earning less than \$25,000 annually. In each racial/ethnic group, more than 10% of persons reported not knowing how they would get around if they could no longer drive. **Conclusions:** Important variations by race/ethnicity in both travel behaviors and concerns for adequate alternatives to driving were found, revealing the need for further research to better understand reasons for these differences and to identify ways to meet the transportation needs of the changing U.S. population demographics. **Impact on Industry:** Further research on adequate alternatives to driving and transportation needs is needed.

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1. Introduction

Over the next few decades, the U.S. population will become both older and more racially and ethnically diverse. The U.S. Census Bureau predicts that minority racial/ethnic populations will increase from 116 million in 2010 (37% of the population) to 186 million by 2040 (49% of the population; U.S. Census Bureau, 2013).

Research has shown that travel-related behaviors vary considerably by both age and race/ethnicity and are influenced by several factors, including socioeconomic (e.g., household composition, employment status, income, education, vehicle availability) and location characteristics (e.g., land use, population density; Giuliano, 2000; Polzin, Chu, & Rey, 2000). Moreover, at older ages, travel-related behaviors may change due to lifestyle adjustments or declines in health and can have dramatic effects on a person's quality of life (Bailey, 2004; Edwards, Lunsman, Perkins, Rebok, & Roth, 2009; Mezuk & Rebok, 2008; Molnar et al., 2013; Ragland, Satariano, & MacLeod, 2005).

As U.S. population profiles continue to shift, it is important to not only understand current differences in travel-related behaviors and opinions, but also to understand personal concerns and needs for the future. Few studies have examined concerns about future travel options by race/ethnicity. The purpose of the present study was to provide recent estimates of key travel behaviors, opinions, and concerns of U.S. adult drivers by race/ethnicity.

[☆] Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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2. Methods

Data from the 2010 HealthStyles survey were used for analysis. HealthStyles is an annual, cross-sectional, national mail-panel survey of persons ages 18 years or older living in the United States. The HealthStyles survey is sent to a random sample of respondents from Porter Novelli's (Washington, DC) ConsumerStyles survey. In April and May 2010, the ConsumerStyles survey was mailed to a stratified, random sample of 20,000 persons. Responses were received from 10,328 people for a response rate of 51.6%. Of the respondents who returned the ConsumerStyles survey, a random sample of 6,253 respondents was sent the HealthStyles survey in September and October 2010. Responses were received from 4,198 people for a response rate of 67.1%. In return for their participation, respondents were provided with small incentives (a cash incentive totaling less than \$10 and a lottery entry to win between \$50 and \$1,000). HealthStyles survey data were weighted on five demographic variables: gender, age, income, race/ethnicity, and household size to match the 2009 Current Population Survey of the U.S. Census.

This analysis was restricted to survey respondents who responded "yes" when asked if they had driven in the last 30 days. Respondents were then asked several questions about their travel-related behaviors, opinions, and concerns, including how often they get out of their home and go somewhere, how often they used specific modes of travel (e.g., drive oneself, obtain a ride with family or friends, walk, bike, take a taxi, use public transportation), whether they thought there were adequate alternatives to driving for people in their community, how concerned they were about having safe and alternative transportation options if they were no longer able to drive, and how they thought they would most often get around if they could no longer drive. Additionally, data were collected on several demographic characteristics, including age, sex, race/ethnicity (categorized as white, black, Hispanic, or other), income, and population density (categorized as metropolitan area or non-metropolitan area).

Weighted percentages and corresponding 95% confidence intervals (CIs) for each of the travel-related behaviors, opinions, and concerns were calculated by race/ethnicity. Logistic regression was used to further examine the relationships between race/ethnicity and specific travel-related opinions and concerns, while adjusting for age group, sex, income, and population density. Interactions between race/ethnicity and other covariates in the models were assessed using backward stepwise regression. When examining the relationship between race/ethnicity and concern for having safe and alternative transportation options when no longer able to drive, two interaction terms were significant, race/ethnicity and population density and race/ethnicity and income. Since there was multicollinearity when both interaction terms were included in the model, two separate models, each with one interaction term, were specified. In all instances, p -values < 0.05 were considered statistically significant. All analyses were completed using SAS software, version 9.3 (SAS Institute, Inc., Cary, North Carolina).

3. Results

In 2010, 12.9% of drivers reported that they got out of their home once or less per week; however, percentages varied by race/ethnicity. A greater percentage of Hispanics (19.3%; 95% CI: 14.1%–24.6%) reported that they got out of their home once or less per week compared to whites (10.5%; 95% CI: 8.8%–12.1%; Table 1). Travel behavior differences also existed by race/ethnicity with respect to modes of travel used each week. While most persons reported driving themselves at least once per week, differences existed in the percentages of persons that reported walking as a mode of travel by race/ethnicity. Specifically, more Hispanics (45.1%; 95% CI: 37.7%–52.5%) reported walking as a mode of travel at least once per week than whites (30.9%; 95% CI: 28.3%–33.6%).

When asked about adequate alternatives to driving in their community, more than a third of all Hispanics (34.7%; 95% CI: 27.4%–42.0%) agreed that there were adequate alternatives compared to 23.4% (95% CI: 20.6%–26.2%) of whites (Table 1). Additionally, about half of all white (51.5%; 95% CI: 48.4%–54.5%), black (48.3%; 95% CI: 38.3%–58.3%), and other (50.3%; 95% CI: 41.4%–59.1%) drivers disagreed that there were adequate alternatives, compared to 34.1% of Hispanics (95% CI: 27.8%–40.5%). However, when asked about their level of concern related to having safe and

Table 1
Travel behaviors, opinions, and concerns of U.S. adult drivers aged ≥ 18 years by race/ethnicity, HealthStyles, 2010.

	White		Black		Hispanic		Other	
	Count	Weighted % (95% CI)	Count	Weighted % (95% CI)	Count	Weighted % (95% CI)	Count	Weighted % (95% CI)
Total	2694		365		390		334	
<i>How often you get out of the home</i>								
At least once a day	988	35.3 (32.5–38.0)	93	22.1 (15.8–28.3)	109	33.8 (26.4–41.3)	96	36.7 (27.1–46.2)
2–6 times per week	1373	54.3 (51.3–57.2)	190	56.5 (46.4–66.6)	184	46.8 (39.8–53.8)	179	49.8 (40.7–58.8)
Less than or equal to once a week	257	10.5 (8.8–12.1)	59	21.4 (10.8–32.0)	81	19.3 (14.1–24.6)	46	13.6 (8.2–18.9)
<i>Use the following mode of travel at least once per week^a</i>								
Drive yourself	2494	97.7 (97.1–98.3)	327	93.1 (88.9–97.4)	356	96.4 (94.3–98.5)	297	94.3 (89.9–98.7)
Get a ride with family or friends	616	29.2 (25.9–32.6)	82	21.9 (15.3–28.6)	77	20.8 (15.1–26.4)	101	27.5 (20.9–34.2)
Walk	833	30.9 (28.3–33.6)	137	40.7 (30.6–50.9)	149	45.1 (37.7–52.5)	124	37.8 (29.1–46.5)
Other (e.g., bicycle, taxi, public transportation, special service, private driver)	261	10.2 (8.3–12.2)	46	10.5 (6.6–14.3)	53	18.1 (11.1–25.1)	48	15.1 (9.3–20.9)
<i>Level of agreement with the statement: there are adequate alternatives to driving for people in my community</i>								
Strongly or moderately agree	580	23.4 (20.6–26.2)	119	33.1 (24.8–41.3)	123	34.7 (27.4–42.0)	95	24.7 (18.7–30.8)
Neither agree nor disagree	642	25.1 (22.3–28.0)	82	18.7 (13.5–23.8)	121	31.2 (24.9–37.5)	92	25.0 (18.6–31.5)
Strongly or moderately disagree	1422	51.5 (48.4–54.5)	155	48.3 (38.3–58.3)	133	34.1 (27.8–40.5)	142	50.3 (41.4–59.1)
<i>Level of concern for having safe and alternative transportation options when no longer able to drive</i>								
Very or extremely concerned	965	37.5 (34.6–40.4)	193	58.7 (49.7–67.7)	178	47.3 (40.4–54.3)	158	50.9 (41.8–59.9)
Somewhat concerned	870	31.4 (28.7–34.1)	78	23.9 (17.1–30.7)	101	29.6 (22.6–36.5)	85	27.1 (19.7–34.4)
Not at all or not very concerned	745	31.1 (28.1–34.1)	72	17.4 (12.2–22.6)	90	23.1 (17.8–28.4)	75	22.1 (14.8–29.4)

CI = Confidence Interval.

^a Will not sum to 100%, as respondents could choose more than one.

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