

Organ donation video messaging in motor vehicle offices: results of a randomized trial

Context—Since nearly all registered organ donors in the United States signed up via a driver's license transaction, motor vehicle (MV) offices represent an important venue for organ donation education.

Objective—To evaluate the impact of organ donation video messaging in MV offices.

Design—A 2-group (usual care vs usual care + video messaging) randomized trial with baseline, intervention, and follow-up assessment phases.

Setting—Twenty-eight MV offices in Massachusetts.

Intervention—Usual care comprised education of MV clerks, display of organ donation print materials (ie, posters, brochures, signing mats), and a volunteer ambassador program. The intervention included video messaging with silent (subtitled) segments highlighting individuals affected by donation, playing on a recursive loop on monitors in MV waiting rooms.

Main Outcome Measures—Aggregate monthly donor designation rates at MV offices (primary) and percentage of MV customers who registered as donors after viewing the video (secondary).

Results—Controlling for baseline donor designation rate, analysis of covariance showed a significant group effect for intervention phase ($F=7.3$, $P=.01$). The usual-care group had a significantly higher aggregate monthly donor designation rate than the intervention group had. In the logistic regression model of customer surveys ($n=912$), prior donor designation ($\beta = -1.29$, odds ratio [OR]=0.27 [95% CI = 0.20-0.37], $P < .001$), white race ($\beta = 0.57$ OR = 1.77 [95% CI = 1.23-2.54], $P = .002$), and viewing the intervention video ($\beta = 0.73$, OR = 1.54 [95% CI = 1.24-2.60], $P = .01$) were statistically significant predictors of donor registration on the day of the survey.

Conclusion—The relatively low uptake of the video intervention by customers most likely contributed to the negative trial finding. (*Progress in Transplantation*. 2015;25[4]:332-338)

©2015 NATCO, The Organization for Transplant Professionals
doi: <http://dx.doi.org/10.7182/pit2015166>

James R. Rodrigue, PhD,
Aaron Fleishman, BA,
Sean Fitzpatrick, MPA,
Matthew Boger, MA

Beth Israel Deaconess Medical Center (JRR, AF), Harvard Medical School (JRR), Boston, Massachusetts, New England Organ Bank, Waltham, Massachusetts (SF, MB)

Corresponding author: James R. Rodrigue, PhD, The Transplant Institute, Beth Israel Deaconess Medical Center, 110 Francis Street, 7th Floor, Boston, MA 02215 (e-mail: jrrodrig@bidmc.harvard.edu)

To purchase electronic or print reprints, contact:
American Association of Critical-Care Nurses
101 Columbia, Aliso Viejo, CA 92656
Phone (800) 899-1712 (ext 532) or (949) 448-7370 (ext 532)
Fax (949) 362-2049
E-mail reprints@aacn.org

Although most people have favorable attitudes toward organ donation,¹ the current donor registration rate in the United States (44%) falls short of the 50% goal established by Donate Life America.² Leveraging favorable donation attitudes to increase donor registry enrollment is a strategic objective of organ procurement organizations. On an individual level, registering as an organ donor provides documentation of one's donation intention, which makes the donation request process less stressful for many grieving families and legally authorizes organ procurement at the time of a donation-eligible death.³⁻⁵ On a societal level, higher donor registration rates increase organ availability for transplant,² which lowers waiting list mortality,

improves quality of life, and reduces health care costs associated with end-organ disease management.

Efforts to increase the number of registered donors have focused largely on public education about the need for more organ donors and removing barriers to registration.^{6,7} Translating favorable donation attitudes into actionable behavior (ie, registration), however, has proven elusive for many social and practical reasons.⁷ One common practical limitation has been the inability to provide organ donation education in close time proximity to the targeted behavior of joining a registry. Recently, motor vehicle (MV) offices have emerged as a potential venue to deliver organ donation information to the general public at a time when the

donor registration option is presented. MV offices are familiar to most adults, they serve as the primary portal for donor registration, and with nearly 200 million licensed drivers nationwide, there is potential for widespread dissemination of effective educational strategies.

Organ donation researchers have implemented and evaluated novel educational strategies within MV offices.⁸⁻¹⁵ In Michigan, for instance, Harrison et al^{9,10} found that priming the general public with a targeted media campaign (eg, billboards, radio ads) combined with using donation signage in MV offices and volunteers who tried to engage MV customers in talking about organ donation led to substantial increases in donor registry enrollment. In Ohio, Zaramo et al¹¹ similarly found that a culturally tailored intervention that included donation print materials, distributing donation videos, interacting with customers to increase donation awareness, and an interoffice competition to increase registry enrollment produced significant increases in donor registration, especially in MV offices with predominantly minority customers. In a statewide randomized trial in Florida, Rodrigue et al¹² found that a multipronged approach of donation materials, customer engagement, and staff education at MV offices contributed to significantly higher donor registration rates than providing only donation pamphlets and posters in MV waiting areas. Collectively, these campaigns provide feasibility and effectiveness data in support of MV-based donation campaigns.

Of particular relevance to the current investigation, Thornton et al¹³ randomized MV customers who were not currently registered as organ donors to be shown a 5-minute organ donation video on an iPod immediately before entering the MV office or to a no-video usual care condition. The video featured discussions among individuals personally affected by organ donation or transplant and was designed to address common concerns about organ donation (eg, disfigurement, inadequate medical care if designated as donor, medical mistrust, not consistent with religious beliefs) and to highlight the need for more organs. Customers who watched the donation video were significantly less likely to feel that they had insufficient information about donation and more likely to register as organ donors during their MV visit.

Despite its effectiveness, feasibility and cost-effectiveness concerns of the individually administered 5-minute iPod video intervention may limit its widespread dissemination and adoption. Therefore, we developed a brief organ donation video that could be displayed on a repetitive loop in MV waiting areas and evaluated its effect on donor designation rates. We hypothesized that MV offices displaying the video intervention would have higher donor designation rates than would offices without the video.

Methods

Study Overview

This 2-group randomized trial involved 28 MV branch offices in Massachusetts, with primary outcome assessments occurring during baseline, intervention, and follow-up phases, each 5 months in duration. The study occurred between May 2012 and December 2014. Monthly data on donor designation rates, broken down by sex and age, were provided by the Massachusetts Department of Transportation's Information Technology Office for each MV branch office. Additionally, research assistants identified as being affiliated with Beth Israel Deaconess Medical Center and the Harvard Medical School conducted brief exit interviews with MV customers who completed driver's license transactions at 14 of the MV offices. Data were gathered on customers' sex, age, race/ethnicity, donor designation status before/after driver's license transaction, whether they saw any organ donation materials during their MV office visit, and, if so, the type of materials seen. Interviews generally lasted less than 1 minute, and participants were offered a candy bar for answering interview questions. Study procedures were approved by the Beth Israel Deaconess Medical Center's Committee on Clinical Investigation.

Randomization

A mixed randomization scheme was used for allocating MV offices to the video intervention or usual care group. Using 2010 US census data, we identified 10 MV offices serving moderate to high proportions of ethnic/racial minority drivers. Considering the lower rates of donor registry enrollment among minorities,^{1,16} we first randomized these 10 MV offices equally to the 2 groups. We then used a simple randomization scheme to assign the remaining 18 MV offices to groups. Research assistants conducted onsite customer exit interviews on multiple days at MV offices in the intervention group. We did not conduct customer interviews at 2 offices due to logistics or failure to obtain branch manager approval.

Usual Care

A few years ago, the New England Organ Bank (NEOB) created a full-time director of state relations position to increase organ donation awareness in governmental agencies, work with lawmakers to develop and pass legislation to facilitate organ donor registration, and to work closely with MV administrators and staff in its 5-state donation service area. In this context, the director conducts an annual organ donation awareness workshop for MV staff, ensures that all MV offices have visible point-of-decision organ donation materials (eg, signing mats, posters, brochures) in the waiting areas and transaction counters, and works

with the NEOB volunteer services coordinator to ensure that patient and donor family volunteers visit MV staff regularly. As part of the volunteer program, transplant recipients and donor family members periodically staff tables with organ donation information in MV waiting rooms and interact with MV staff, describing their personal narratives or stories and thanking staff for the important role they play in introducing the organ donation option to customers. Additionally, the director meets at least quarterly with the MV registrar and branch managers and conducts informal monthly visits at each branch office. All MV offices participating in the study received usual care as just defined.

Video Intervention

The intervention was a continuous series of 5 video segments looped sequentially on 37-inch monitors that were installed inside MV waiting areas. Only 1 monitor was installed in each MV office receiving the intervention. The video segments are described elsewhere.¹⁷ In brief, we professionally produced 4 videos featuring local individuals to highlight the positive impact of organ donation, the negative impact of the organ donor shortage, and the benefit of documenting one's donation intentions, as follows: a 6-year-old transplant recipient, a 37-year-old on the transplant waiting list, a family of a 20-year-old who died waiting for a transplant, and a family whose 18-year-old died in an automobile accident and who donated his organs because of donor designation documentation. Additionally, the intervention included an informational video produced by the Health Resources and Services Administration that emphasizes the need for organ donation to facilitate transplants for the thousands of people on the waiting list. Although all videos were produced initially with sound, MV administration permitted only the use of silent videos in their waiting areas, in consideration of the busy work environment in which we were implementing the study. Therefore, all videos were professionally subtitled and displayed without sound.

Each video segment was about 1 minute in duration, and all were subtitled in English. The videos ran sequentially and on a repetitive loop during all hours of MV operation for 5 consecutive months. No other content was displayed on the monitors. Although we requested specific locations for monitors, the final decision was made by the MV branch manager and then monitors were mounted and wired by a contracted electrician. Because of logistic and administrative constraints (eg, approvals, permits, electrical rewiring, electrician availability), monitors were not installed concurrently in the MV offices, but rather sequentially over a period of several months. Periodic on-site checks were made to ensure proper functioning and display of the video intervention.

MV Customer Surveys

Surveys were designed to be very brief (<1 minute) to maximize participation and to avoid disrupting the MV work environment. Research assistants (typically working in teams of 2) approached all customers exiting the MV office and asked if they completed a driver's license transaction during their MV office visit. Only those customers who completed a driver's license transaction and who spoke English were asked to participate in the anonymous survey immediately following their MV transaction. In addition to gathering information about age, sex, and race/ethnicity, we asked customers whether they had registered to be an organ donor during their driver's license transaction, were previously registered as an organ donor before the day's driver's license transaction, and saw any organ donation materials while visiting the MV office immediately before the interview. Regarding the latter question, customers were handed a laminated sheet with pictures of different organ donation materials and asked to identify the ones they saw, if any. These pictures included images of materials we knew to be available in every MV waiting area (organ donation signing mat, posters, brochure, and the video) and one image of an item we knew not to be available in any MV office (donation tote bag). Customers who completed the survey were given a candy bar. All interviews were conducted between 9 AM and 4 PM during weekdays only.

Blinding

Because of the nature of the intervention, it was not possible for MV staff or research assistants conducting the on-site interviews to be blinded to MV office group assignment. However, the staff member from the Department of Transportation who was providing monthly donor registration data was blinded to group assignment.

Outcomes

The primary outcome was the monthly donor designation rate for the MV office. This group level outcome was selected to match the delivery of the intervention (ie, MV office). In Massachusetts, all individuals completing a driver's license transaction are required to provide a "yes" or "no" response to the following question: "Do you want to be, or continue to be, registered as an organ and tissue donor?" Each month, DoT staff provided us with an aggregate summary, for each MV office, of the number of individuals completing license transactions and the number of individuals with a "yes" response to the donation question, from which we then calculated a donor designation rate.

Secondary outcomes were the percentage of new donor designations, which could be assessed only via

Table 1 Baseline characteristics of motor vehicle offices participating in study

Characteristic	Total (N=28)	Group assignment		Statistics ^a
		Usual care (n=12)	Intervention (n=16)	
Monthly driver's license transactions, mean (SD)	2270.55 (1157.32)	1439.53 (584.59)	2893.81 (1092.46)	$t=4.17, P<.001$
Monthly donor designations, mean (SD)	1105.09 (604.36)	710.52 (286.81)	1401.01 (615.77)	$t=3.59, P=.001$
Donor designation rate, mean (SD)	49.38 (4.90)	49.97 (4.77)	48.94 (5.10)	$t=0.54, P=.59$
Sex				
Male	45.25 (4.64)	45.28 (4.70)	45.22 (4.76)	$t=0.03, P=.98$
Female	53.72 (5.33)	54.81 (5.01)	52.91 (5.58)	$t=0.93, P=.36$
Age, years				
<30	61.51 (7.56)	61.17 (6.90)	61.77 (8.24)	$t=0.20, P=.84$
30-55	53.09 (5.64)	54.95 (5.00)	51.70 (5.84)	$t=1.55, P=.10$
>55	37.56 (4.39)	38.38 (4.05)	36.95 (4.65)	$t=0.85, P=.40$

^a Usual-care and intervention groups compared via a *t* test.

the customer interviews because of the manner in which the donation question is worded on the written application, and uptake of the different organ donation materials while visiting the MV office.

Statistical Analysis

Descriptive analyses were first conducted to summarize MV office characteristics as well as MV customer data. Student *t* tests were used to examine for any baseline differences between MV offices assigned to the usual-care or intervention group. Analysis of covariance was used with the baseline donor designation rate as a covariate to assess main effects for the primary outcome. All MV offices randomized were included in the analyses according to the original intention-to-treat design. Finally, logistic regression was used to examine predictors (ie, previous donor registration status, sex, race, age, and exposure to donation materials) of donor designation on the day of survey. PASW 17.0 (SPSS, Inc) was used for all statistical analyses.

Results

MV Office Characteristics

Twenty-eight of the 30 MV offices in Massachusetts were allocated to either the usual care (n=12) or intervention (n=16) group. MV offices in Martha's Vineyard and Nantucket were excluded from the study because both locations are accessible only by ferry or plane and conduct fewer than 250 driver's license transactions per month. All MV offices allocated to the intervention group received the intervention. No MV offices closed or otherwise withdrew from the study.

Table 1 shows the baseline characteristics of the MV offices. Compared with MV offices in the usual-care group, those in the intervention group conducted significantly more driver's license transactions per month ($P<.001$) and had more donor designations by

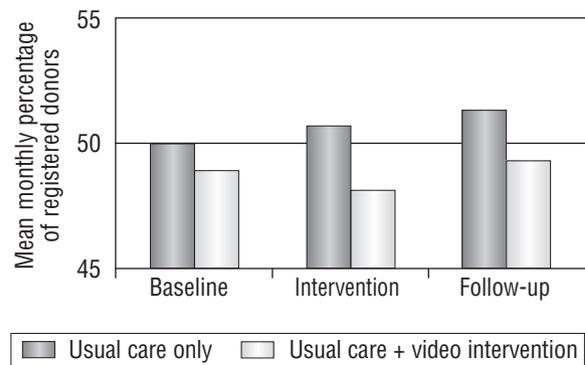


Figure Aggregate monthly donor designation rates by phase (baseline, intervention, and follow-up) and group (usual care, intervention).

volume per month ($P=.001$). However, the 2 groups did not differ on overall baseline donor designation rates ($P=.59$) or on donor designation rates by sex or age (all P 's $>.05$).

Intervention Effectiveness

The Figure shows the aggregate monthly donor designation rates by phase (baseline, intervention, and follow-up) and group (usual care, intervention). With baseline donor designation rate controlled for, analysis of covariance showed a significant group effect for intervention phase ($F=7.3, P=.01$). The usual-care group had a significantly higher aggregate monthly donor designation rate than did the intervention group. The group effect for follow-up phase donor designation rate did not reach statistical significance ($F=2.5, P=.13$).

Relationship Between Donation Material Exposure and Donor Designation Rate

We interviewed 912 customers following a driver's license transaction at MV offices in the intervention

Table 2 Characteristics and survey responses of the customers in the motor vehicle office who completed the interview survey (N=912)

Characteristic	No. (%)
Sex	
Male	533 (58.4)
Female	379 (41.6)
Race or ethnicity	
White	668 (73.2)
Hispanic	59 (6.5)
Black	135 (14.8)
Asian	50 (5.5)
Age, years	
<21	93 (10.2)
21-30	246 (27.0)
31-40	131 (14.4)
41-50	112 (12.3)
51-60	152 (16.7)
>60	178 (19.5)
Donor registration status before/after motor vehicle license transaction	
Registered/registered	207 (22.7)
Registered/not registered	211 (23.2)
Not registered/registered	98 (10.8)
Not registered/not registered	395 (43.4)
Donation material seen at motor vehicle office	
None	437 (47.9)
Brochure	102 (11.2)
Signing mat	50 (5.5)
Poster	307 (33.7)
Intervention video	172 (18.9)
Tote bag (sham)	9 (1.0)

group. Sample characteristics and survey responses are presented in Table 2. The majority of respondents were male, white, and 21 to 50 years old. Four hundred eighteen (45.8%) reported being a registered donor before visiting the MV office, but only half (n=207, 49.5%) of those previously registered reported renewing their registration as a donor on the day of the survey. Half (n=475, 52.1%) of all survey respondents reported seeing at least 1 organ donation messaging during their visit to the MV office. The donation poster was the most commonly seen messaging (n=307, 33.7%), whereas 18.9% (n=172) reported watching the organ donation intervention video. Only 9 customers (1%) reported seeing a sham tote bag.

In the logistic regression model, prior donor designation ($\beta = -1.29$, odds ratio [OR]=0.27 [95% CI=0.20-0.37], $P < .001$), white race ($\beta = 0.57$, OR=1.77 [95% CI=1.23-2.54], $P = .002$), and viewing the intervention video ($\beta = 0.73$, OR=1.54 [95% CI=1.24-2.60], $P = .01$) were statistically significant predictors of donor registration on the day of the survey, accounting for 22% of the variance in the outcome ($P < .001$) and correctly classifying 69% of MV customers. Sex,

age, and exposure to other donation materials were not retained in the model.

Post Hoc Analysis

Considering the primary negative finding of the randomized controlled trial, we examined whether monitor placement was associated with intervention video uptake and donor designation rates. Two investigators who were familiar with the MV offices independently rated monitor placement as follows: 1 = ideal location (monitor visible when seated anywhere in waiting area, n=4), 2 = good location (monitor visible when in line, but only partially visible when seated in waiting area, n=8), and 3 = poor location (monitor not entirely visible when in line or when seated in waiting area, n=4). Discrepancies in ratings were discussed and if agreement was not reached, a third investigator familiar with monitor placements did the final rating. Controlling for baseline donor registration rate, analysis of covariance showed a significant effect for monitor placement ($F = 3.0$, $P = .03$). MV offices with monitors in an ideal location had a significantly higher aggregate monthly donor designation rate than those with monitors in a poor location at both the intervention and follow-up phases.

MV customers were more likely to report seeing the intervention video if the monitor placement was in an ideal (n=63, 21%) or good (n=94, 20%) location compared with a poor location (n=15, 10%; $\chi^2 = 8.0$, $P = .02$). Customers who visited a MV office with a monitor in an ideal (n=104, 35%) or good (n=185, 40%) location were significantly more likely to register as donors on the day of the survey than were customers visiting an office with poor monitor placement (n=17, 12%; $\chi^2 = 38.4$, $P < .001$).

Discussion

In this randomized trial, we found that the recursive looped playback of an organ donation video message in the MV waiting area did not lead to higher donor designation rates compared with MV offices with printed organ donation materials only. We randomized at the level of the MV office and, therefore, asserted no control over customer-level exposure to the intervention. However, exit surveys showed that customers who were not registered as organ donors before visiting the MV office were more likely to join the donor registry if they watched the video. This latter finding is consistent with prior research that showed that watching an organ donation video before a driver's license transaction at the MV office increased rates of donor registration.¹³

The negative primary finding of the trial has several plausible explanations. Most importantly, MV customer uptake of the video intervention was much

more limited than anticipated. Only 18.9% of customers surveyed following their driver's license transaction reported exposure to the video, which most likely muted the intervention's effectiveness overall. The poor uptake may be attributed, in part, to the less than ideal location of monitors in some MV waiting areas. However, even in those MV offices with ideally placed monitors, while showing evidence of higher donor designation rates, uptake of the video intervention was still somewhat limited. Anecdotally, customers appeared more focused on completing pretransaction forms and using personal electronic devices (smart phones, tablets) than watching video monitors in the waiting area.

Being restricted to using silent videos most likely adversely affected video intervention uptake and may have limited the impact on donor designation rates. We have previously shown that the video segments used in this study have strong emotional appeal and produce favorable behavioral intentions to register as organ donors, but these effects are stronger when the videos are viewed with sound.¹⁷ We first produced the video segments with sound and then had to edit them into silent videos because of the restrictions imposed by the MV offices. In retrospect, had we focused principally on producing silent videos that could convey appropriate donation messaging and yield positive emotional valence, MV customer uptake may have been higher.

Determining how best to reach MV customers before their driver's license transaction and identifying the most effective delivery strategy for donation messaging continue to be important aims for future research. In Massachusetts alone, more than 60 000 driver's license transactions occur in MV offices per month and all of these individuals must be presented with the organ donor question. Increasingly, such transactions are occurring online, which presents other opportunities for evaluating the most effective organ donation messaging to facilitate registry enrollment. While interpersonal interactions with customers and individual iPod videos have proven to increase donor designations in MV offices, these strategies have not been widely disseminated, perhaps because they are too time intensive and costly.^{10,12,13} Low-cost interventions that engage MV customers in thinking about organ donation before being asked the donor registry question and that can be widely disseminated if proven effective are desperately needed.

One unexpected finding of the study is that only half of the MV customers previously registered as organ donors reported renewing their registration as a donor on the day we surveyed them. Also, we found that only one-third of the customers we interviewed said that they had registered as donors on the day of

the survey, which is less than what would be expected based on the baseline donor designation rates. Importantly, we did not confirm customer donor registration status before or after visiting the MV office, so it is entirely possible that many customers thought they were previously registered when, in fact, they were not and vice versa. Also, we did not ask them why they chose to not register this time around or whether this represented an active refusal to participate in the organ donor registry. Nevertheless, these data suggest that the decision to register or not register as a donor may be less stable than previously thought, and this issue of decision stability warrants further research.

Study findings should be considered within the context of a few methodological limitations. The practical realities in conducting this type of field research have been noted here. Other limitations include producing the intervention video (and subtitles) and conducting MV customer interviews only in English, thus findings cannot be generalized to non-English-speaking MV customers. Customer survey findings may be affected by selection bias. Those more willing to speak to the researchers may be more altruistic than those who refused, which may be associated with higher rates of donor designation in this cohort. We conducted interviews only at intervention MV offices; thus, we could not examine whether organ donation materials other than the video affected donation decision similarly across the 2 groups. Also, although we asked MV customers about their donation designation, we did not cross-check this self-report with their driver's license. Finally, for those customers who reported watching the intervention video, we did not ask whether it (or any of the other donation materials) influenced their donation decision, whether they watched all video segments, or which video segments were most appealing to them. Despite the limitations, the study benefited from a randomized design, inclusion of nearly all MV offices in the state, and the collection of MV customer surveys.

Conclusion

Although MV offices may be an excellent venue for delivering organ donation information to the public, the use of silent, subtitled personal narratives in MV waiting areas did not prove to be an effective strategy to increase donor designation rates at the MV office level in this particular study. Future research should focus on how best to deliver donation information in this venue to maximize donor registry enrollment.

Acknowledgments

The authors are thankful for the assistance provided by Denny Tsai, Maeve Moore, Jodi Dattadeen, Alexa Hiley,

Nicholas Kwan, Julia Morrissey, and Suchie Ravindran in the conduct of this study.

Financial Disclosures

This study was supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) under grant numbers D71HS22061 and D71HS24204. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the US Government.

References

1. US Department of Health and Human Services, Health Resources and Services Administration, Healthcare Systems Bureau. *2012 National Survey of Organ Donation Attitudes and Behaviors*. Rockville, MD: US Department of Health and Human Services; 2013.
2. Donate Life America. National donor designation report card. 2014. http://donatelife.net/wp-content/uploads/2014/06/Report-Card-2014-44222-Final_Edit_819.pdf. Accessed April 8, 2015.
3. Siminoff LA, Gordon N, Hewlett J, Arnold RM. Factors influencing families' consent for donation of solid organs for transplantation. *JAMA*. 2001;286(1):71-77.
4. Rodrigue JR, Cornell DL, Howard RJ. Organ donation decision: comparison of donor and nondonor families. *Am J Transplant*. 2006;6(1):190-198.
5. Siminoff LA, Agyemang AA, Traino HM. Consent to organ donation: a review. *Prog Transplant*. 2013;23(1):99-104.
6. Childress JF, Liverman CT, eds. *Organ Donation: Opportunities for Action*. Washington, DC: The National Academies Press; 2006.
7. Feeley TH, Moon S. A meta-analytic review of communication campaigns to promote organ donation. *Commun Reports*. 2009;22:63-73.
8. Harrison TR, Morgan SE, Di Corcia MJ. Effects of information, education, and communication training about organ donation for gatekeepers: clerks at the Department of Motor Vehicles and organ donor registries. *Prog Transplant*. 2008;18(4):301-309.
9. Harrison TR, Morgan SE, King AJ, et al. Promoting the Michigan organ donor registry: evaluating the impact of a multifaceted intervention utilizing media priming and communication design. *Health Commun*. 2010;25(8):700-708.
10. Harrison TR, Morgan SE, King AJ, Williams EA. Saving lives branch by branch: the effectiveness of driver licensing bureau campaigns to promote organ donor registry sign-ups to African Americans in Michigan. *J Health Commun*. 2011;16(8):805-819. doi:10.10810730.2011.552001.
11. Zaramo CE, Morton T, Yoo JW, Bowen GR, Modlin CS. Culturally competent methods to promote organ donation rates among African-Americans using venues of the Bureau of Motor Vehicles. *Transplant Proc*. 2008;40(4):1001-1004.
12. Rodrigue JR, Krouse J, Carroll C, Giery KM, Fraga Y, Edwards E. A Department of Motor Vehicles intervention yields moderate increases in donor designation rates. *Prog Transplant*. 2012;22(1):18-24.
13. Thornton JD, Alejandro-Rodriguez M, León JB, et al. Effect of an iPod video intervention on consent to donate organs: a randomized trial. *Ann Intern Med*. 2012;156(7):483-490. doi:10.7326/0003-4819-156-7-201204030-00004.
14. Quick B, Harrison TR, King AJ, Bosch D. It's up to you: a multi-message, phased driver facility campaign to increase organ donation registration rates in Illinois. *Clin Transplant*. 2013;27(5):E546-553. doi:10.1111/ctr.12208.
15. King AJ, Williams EA, Harrison TR, Morgan SE, Havermahl T. The "Tell Us Now" campaign for organ donation: using message immediacy to increase donor registration rates. *J Appl Commun Res*. 2012;40(3):229.
16. Siminoff LA, Burant CJ, Ibrahim SA. Racial disparities in preferences and perceptions regarding organ donation. *J Gen Intern Med*. 2006;21(9):995-1000.
17. Rodrigue JR, Fleishman A, Vishnevsky T, Fitzpatrick S, Boger M. Organ donation video messaging: differential appeal, emotional valence, and behavioral intention. *Clin Transplant*. 2014;28(10):1184-1192. doi:10.1111/ctr.12449.

Copyright of Progress in Transplantation is the property of American Association of Critical-Care Nurses and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.