



Feasibility of Organ Donation Registration at a University Health Center

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Abstract

In Maryland, over 95% of all organ donation registration occurs at the Department of Motor Vehicles. This decision-making environment is neither personal nor conducive for health-related questions regarding organ donation. At the University of Maryland, College Park University Health Center (UHC), we explored the feasibility of organ donation registration. Participants were surveyed regarding their organ donor registration status at the University of Maryland, College Park University Health Center between 5/2019-6/2019. Responses were compared using Fisher's exact and chi-square tests. Among the 235 participants, the median age bracket was 24 or older, 49% were white, and 51% were male. Most were university students (84%). Many were already organ donors; however, 47% were either not registered or unsure if they were currently registered. Compared to those who were already registered, most non-registered participants were Asian (45% vs. 14%, $p < 0.001$). Of the non-registered participants, 27% registered to be an organ donor at that time and 89% wanted informational material. In this health-related setting, participants were able and willing to register to become organ donors, highlighting the feasibility of and necessity for outreach on college campuses.

Introduction

- In Maryland, organ donation registration predominantly occurs at the Motor Vehicle Association (MVA) when people secure and renew their driving permits and licenses.¹
- Number of misconceptions surrounding the process and implications of registering as an organ donor frequently lead to a distrust of organ donation as both a concept and an institution, thus decreasing registration rates and consequently the supply of potential donation grafts.^{2,3,4}
- Alternatively, health-related settings provide people with the space and time to ask questions and allow for additional resources regarding health-related issues, including organ donation. In a northwest Ohio community, the majority of respondents did not feel comfortable discussing matters related to organ donation at the Motor Vehicle Association and would rather have the conversation with a health care provider.⁵
- Additionally, according to Natt et. al, primary care clinics have been successful in increasing the organ donation registration rate.⁶ However, more research on primary care clinics as modes of organ donation registration have yet to be done.
- College students are more susceptible to accidents and other factors that lead to deaths.⁷ Most college students are willing to become registered organ donors; the majority support the concept of organ donation registration.⁸
- According to the US Department of Health and Human Service's Human Resources and Services Administration's 2012 National Survey of Organ Donation Attitudes and Behaviors, when asked if they would be willing to grant permission for organ donation by joining their state's organ donor registry, the majority (76.9%) of 18-34-year-olds said yes, but few were actually registered as organ donors.⁹
- While these students are more likely to receive health and wellness initiatives directed at them, they receive fewer programs centered on organ donation.¹⁰ The efficacy of using a university health center (UHC) as a health-related setting for organ donation registration remains unknown.
- The goal of this study was to determine the feasibility and efficacy of organ donation registration at a university health center.

Methods

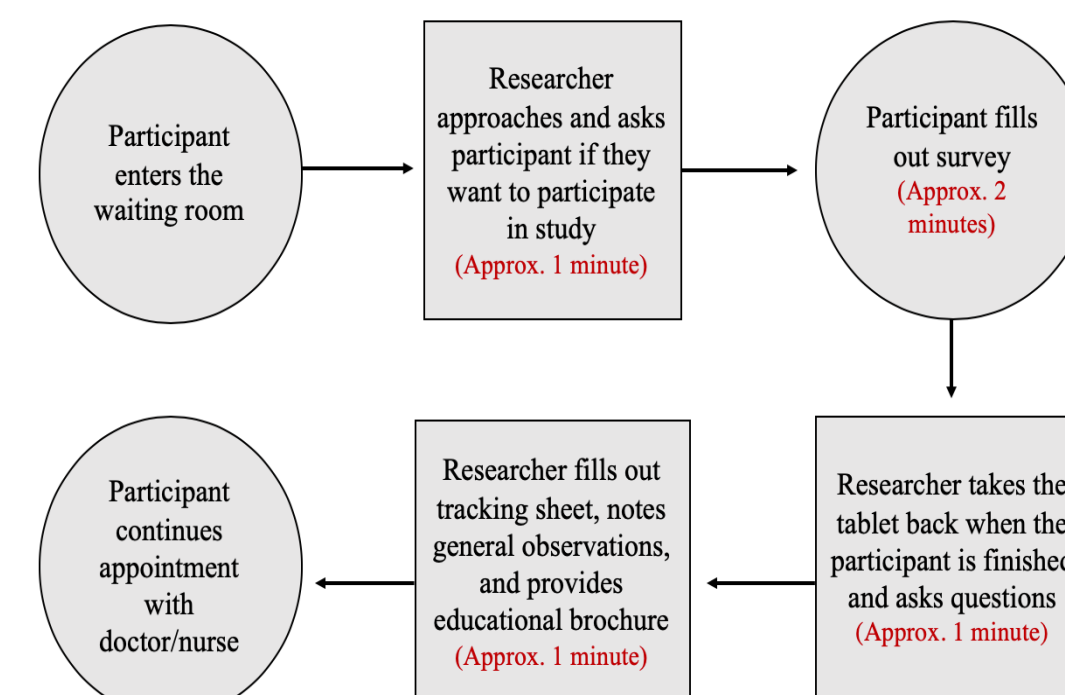


Fig. 1. Process map of waiting room. The process map for the study. The participant would enter the waiting room or are triaged waiting for their provider and the researcher would approach them and begin the IRB approved interactions with the survey.

- An initial survey instrument of seven items created and tested at the University Health Center at the University of Maryland, College Park (UMDCP). This study was reviewed and approved by the University of Maryland Institutional Review Board.
- Survey questions included demographic questions and organ donation information questions.
- If the participant chose to register, the survey would redirect to Donate Life Maryland's secure registration link. For the informational materials on organ donation, an informational brochure from the Health Resources and Services Administration (HRSA) was provided. Approval to use the brochure in the research study was sought and granted.
- Participants were recruited from the University Health Center at the University of Maryland, College Park (UMDCP) between May and June 2019 during operating hours. Researchers either approached participants who were sitting in the general waiting area or were in patient rooms waiting for their provider for primary care appointments. Informed consent was administered orally detailing the purpose of the study, confidentiality, and voluntary nature. The participants would then consent to the survey on the tablet and receive a physical copy of the informed consent form for their records. Survey was administered via a tablet and took approximately two minutes to complete. Once the survey was completed, the researcher would ask whether they would like informational material on organ donation.
- Association between baseline characteristics and organ donor status was estimated using t-tests for pseudonormally distributed continuous variables and chi-square tests for categorical variables. P values of < 0.05 were considered statistically significant.

Results

Feasibility of UHC

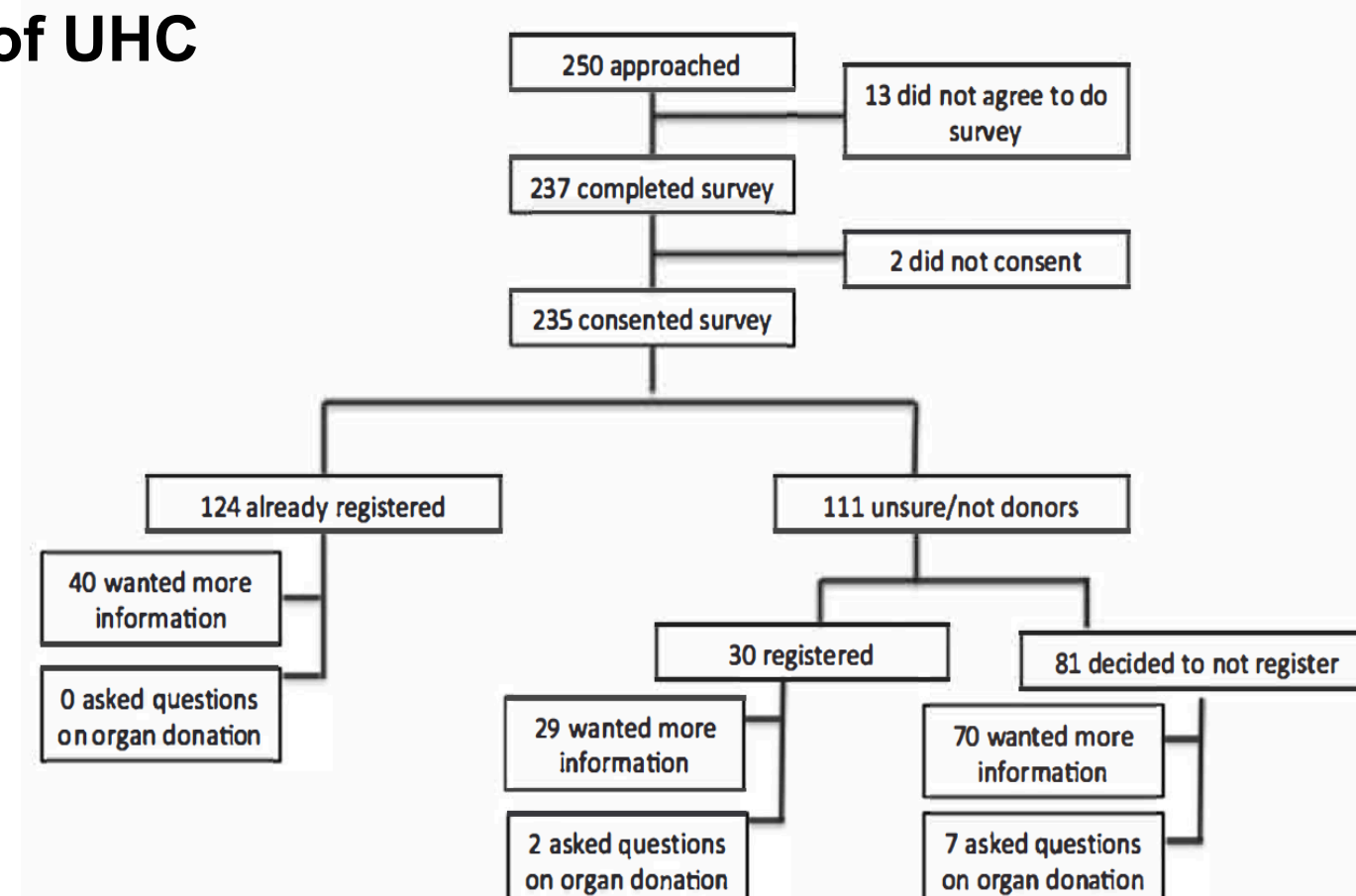


Fig. 2. Flowchart of participants. Of the 250 people approached, 235 consented and completed the survey. Of the 235 participants in the study, 124 were already registered donors while 111 (47%) were not sure or not registered. Of the 111 unsure or not registered participants, 30 (27%) registered at the survey and 99 (89%) wanted informational material on organ donation.

Initial Organ Donor Status Pre-Survey

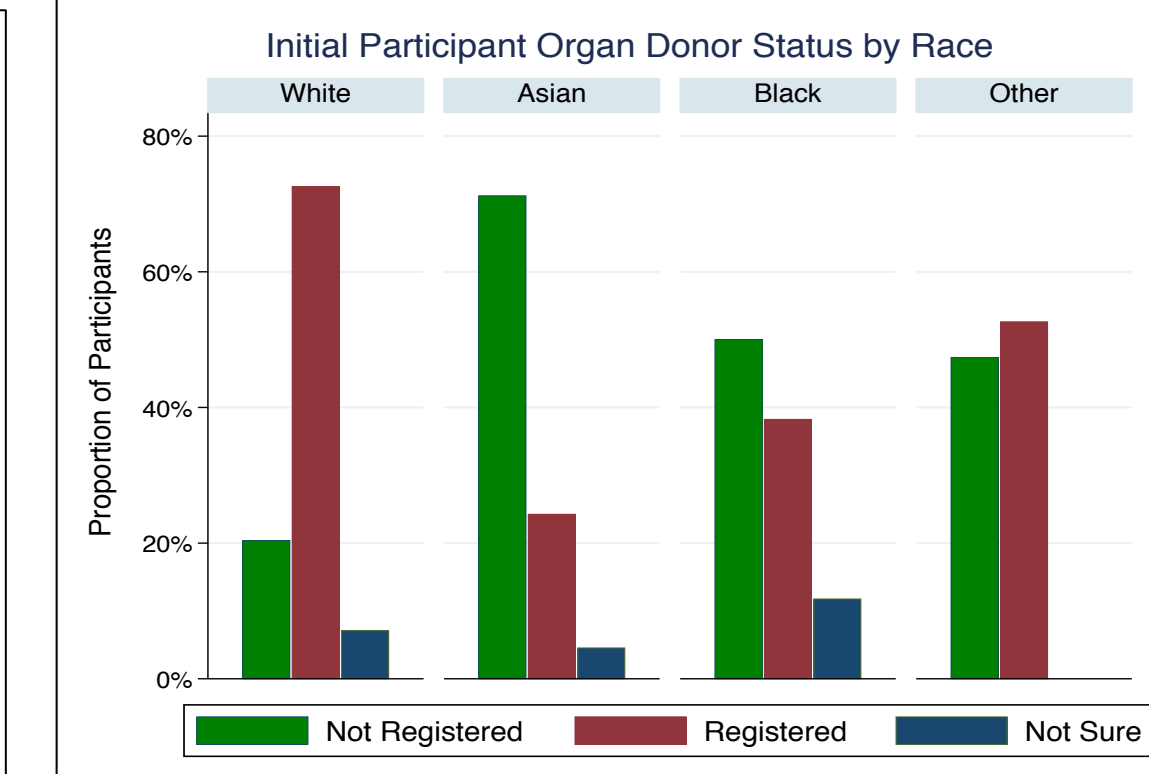
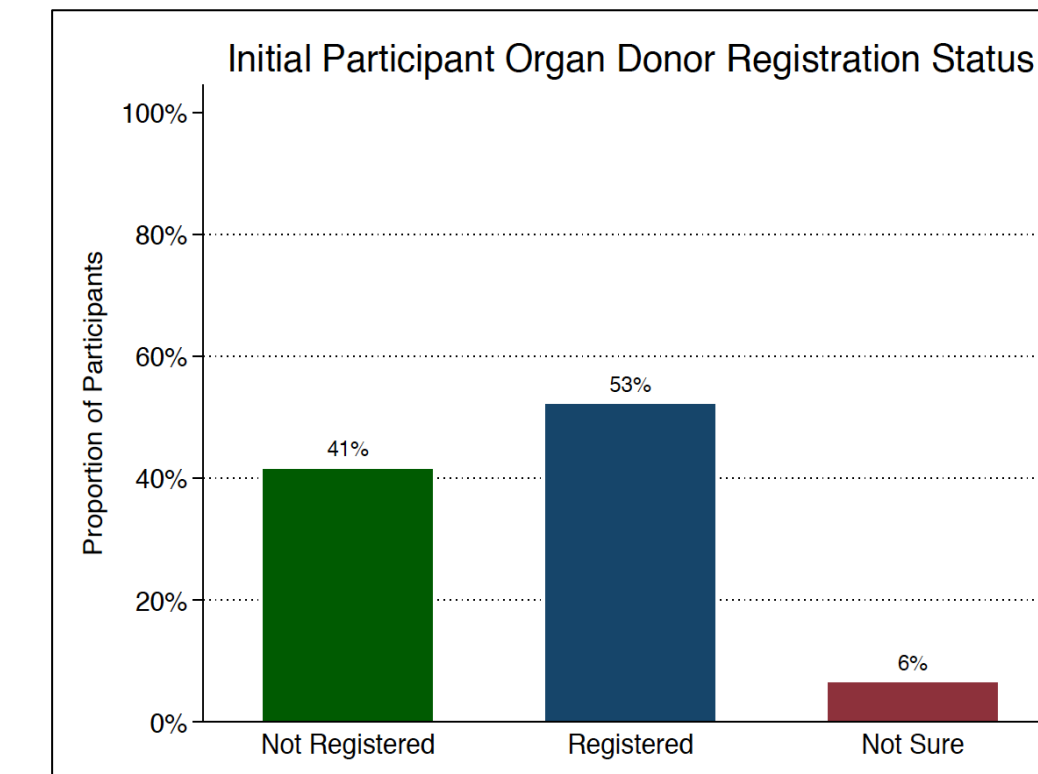


Fig. 3(A-B). A. Initial Participant Organ Donor Registration Status. Of the 235 participants, 53% were already registered organ donors, 41% were not registered, and 6% were unsure if they were registered. **B. Initial Participant Organ Donor Registration Status by Race.** Racial breakdown of the initial organ donor status using proportion of participants within that racial group. Race significantly affected initial registration status ($p < 0.001$). Most White participants were already registered organ donors, whereas the majority of Asian participants were not registered initially.

Discussion

- This single center study explored the feasibility and willingness of organ donor registration at college campus health centers. We found that a large number of participants would register to be an organ donor and even more wanted information on organ donation.
- One of our most distinct findings that was consistent with prior literature was the confirmation of racial barriers to registration. We found that there was a statistical difference in organ donation status based on race. The majority of participants that were already registered donors were white; and there were low numbers across the minority groups that were reported.
- On the other hand, while we found that race was not statistically significant in regard to the decision to register at the survey, the Asian participant population had registered at the survey at a higher amount than the other minority groups (28% for Asian vs. 14% for African American/Black). This was surprising, as many studies had found Asian Americans to have the lowest organ donation registration rates compared to other minority groups due to cultural beliefs and distrust of the healthcare system,^{14,15} which was supported with the initial organ donor status that showed the majority of the Asian participant population were not registered donors (Figure 3B).

Conclusions

- Many people registered to be an organ donor at the UHC and even more wanted information on organ donation and registration.
- Asian participants registered at the survey more than any other minority group.

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