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1-18-2017

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Bernard, Christopher; Brown, Taylor; Ghantasala, Ramya; Hazarika, Obhijit; Leonard, Nicole; Polonski, Cori; Wunrow, Zachary; Heleba, Michelle; Carney, Jan; and Fung, Mark K., "Willingness To Donate Blood During the Summer" (2017). *Public Health Projects, 2008-present*. 240.
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Willingness To Donate Blood During the Summer

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INTRODUCTION

Nearly every summer, Blood Banks across the U.S. are challenged by a decrease in blood donations. Exacerbating this is that although up to 60% of the 300 million residents of the United States are eligible to donate blood at any given time, only about 5-7% of these individuals actually donate each year[1]. Decreased summer blood donations have been attributed to vacation, travel, and national holidays[2,3,4,5]. When seasonal shortages occur, the availability of blood for transfusions decrease to a one or two-day supply, or even less in unusual situations[1]. A diminished blood supply may pose serious risks to patients' health during acute situations in which the proper type and amount of blood are not available.

Our project asked blood donors about their donation habits during the summer months, particularly during vacation travel. We aim to identify barriers to donation during this time period and generate ideas that could ameliorate annual shortages.

METHODS

Paper surveys were distributed to blood donors at the American Red Cross center in Burlington, VT and other centers around the state from October 20 to November 5. This anonymous survey consisted of 16 questions that assessed donors' availability to donate during the summer and willingness to donate while on vacation. Respondents answered questions about frequency of blood donation, travel during the summer, donating blood while on vacation, interest in donating blood while on vacation, and reasons for not donating blood while on vacation. Demographic information was obtained (Table 1). The survey also posed questions about how donors schedule appointments, and how likely they would be to use a smartphone app to find a local blood donation site. The questions were a combination of "yes/no," best-answer, five-point Likert scale, and "check all that apply." The study was exempt from the IRB at the University of Vermont and approved by the American Red Cross.

RESULTS

Table 1. Respondent demographics

Variable	Value (n=293)
Age	
18-24	12 (4.1%)
25-34	36 (12.2%)
35-44	35 (11.9%)
45-54	56 (19.0%)
55-64	84 (28.6%)
64 and over	71 (24.2%)
Male	141 (48.1%)
Female	152 (51.9%)
Donation Frequency (per year)	
First time donor	7 (2.4%)
Less than once	8 (2.7%)
1 time	13 (4.4%)
2-3 times	124 (42.2%)
4-5 times	92 (31.3%)
6 or more	47 (16.0%)
Race	
White	289 (98.3%)
Black of African American	2 (.7%)
Hispanic, Latino, or Spanish	1 (.3%)
American Indian and Alaska Native	7 (2.4%)
Asian	2 (.7%)
Other	2 (.7%)
Occupation	
Student	12 (4.1%)
Part time employed	25 (8.5%)
Full time employed	178 (60.5%)
Retired	78 (26.5%)
Not employed	6 (2.0%)
Other	5 (1.6%)
Highest Level of Education	
Some high school, high school graduate, or GED	57 (19.4%)
Some college or Associate's degree	68 (23.2%)
Bachelor's, graduate, or professional degree	167 (56.8%)

Figure 1. Were you previously aware of the summer blood shortage?
If not, does knowing about it make you more willing to donate? (n=291)

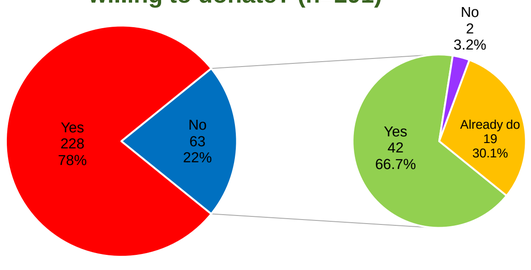


Table 2. Barriers to donation in the summer amongst respondents

Barriers to Donation	Value (n=258)
Locating a blood donation site	35 (13.6%)
Too busy	71 (27.5%)
Scheduling a convenient time	46 (17.8%)
Nature of activities	58 (22.5%)
Traveling is a time for me to relax	79 (30.6%)
Other	53 (20.5%)

Figure 2. Preferred way to schedule donation appointments (n=292)

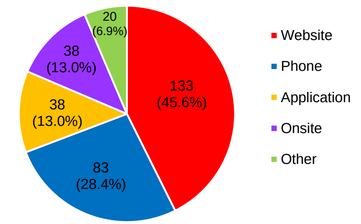
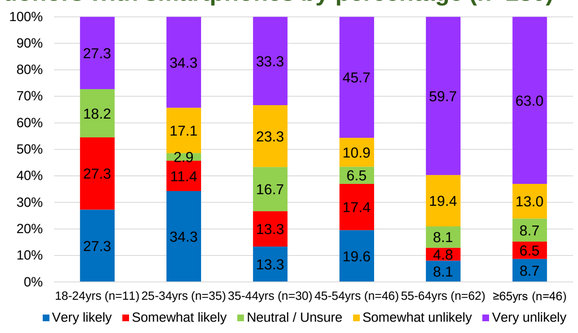


Figure 3. Likelihood of using ARC app among donors with smartphones by percentage (n=230)



ADDITIONAL RESULTS

- Survey respondents across multiple demographic groups cited similar barriers to donation, namely "Too busy" and "Traveling is a time for me to relax."
- 3.4% of people donate while traveling out of town during the summer.
- Of the 96.6% of people who do not donate while traveling out of town in the summer, 36.5% donate at another time during the summer.
- 36.4% of people that don't travel reported that they donate over the summer.

DISCUSSION AND CONCLUSION

- Very few people that traveled in the summer reported donating blood while traveling, which identifies a large population of potential donors who could help alleviate the blood shortage in the summer months.
- Data on barriers to donation identified desire to relax and lack of time in busy schedules as the most common reasons for not donating while on vacation.
- Given no significant difference in donation barriers when broken down by any demographics surveyed, any intervention could be broadly applicable.
- Travel alone cannot account for the lack of blood donation during the summer months as the donation rate for those who travel and those who don't was the almost the same.
- The main limitation to this study is a potential difference in intentions versus what people actually do because of the nature of a survey.
- A future study could address barriers to summer donation for people that do not travel in order to explain the low rate of donation during this time.
- In conclusion, the most successful interventions could be aimed at the general population of donors, not only those who travel out of town in the summer. As seen in the awareness data, further education about summer blood shortage could be helpful in increasing summer donations and this would best be communicated via the ARC website and potentially, by helping willing donors download and use the app.

ACKNOWLEDGEMENTS

Volunteers for printing and distributing our surveys and Dr. Tom Delaney of UVM for project support.

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