

Winter 1-25-2019

Converting Whole Blood Donors to Apheresis Donors

Collin Anderson

UVM Larner College of Medicine

Racquel DeCastro

UVM Larner College of Medicine

Alexa Golden

UVM Larner College of Medicine

Sidney Hilker

UVM Larner College of Medicine

Flora Liu

UVM Larner College of Medicine

See next page for additional authors

Follow this and additional works at: https://scholarworks.uvm.edu/comphp_gallery

 Part of the [Community Health and Preventive Medicine Commons](#), and the [Health Services Research Commons](#)

Recommended Citation

Anderson, Collin; DeCastro, Racquel; Golden, Alexa; Hilker, Sidney; Liu, Flora; Nocera, Vincent; Wolf, Seth; Lamping, Jenny; and Fung, Mark, "Converting Whole Blood Donors to Apheresis Donors" (2019). *Public Health Projects, 2008-present*. 276.
https://scholarworks.uvm.edu/comphp_gallery/276

This Book is brought to you for free and open access by the Public Health Projects, University of Vermont College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Public Health Projects, 2008-present by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.

Authors

Collin Anderson, Racquel DeCastro, Alexa Golden, Sidney Hilker, Flora Liu, Vincent Nocera, Seth Wolf, Jenny Lamping, and Mark Fung

Introduction

Donating blood is a noble act with real potential to save lives. Although millions of Americans donate blood each year, supplies of one blood component—platelets—is in chronically short supply. This is in part due to its significantly shorter shelf life (5-7d) vs. red blood cells (28-42d) or plasma cells (1yr). Platelet apheresis donation offers the opportunity to donate platelets more frequently and in higher quantities but accounts for only a small percentage of all donations. Our study aimed to better characterize perceived barriers in conversion to platelet apheresis donation.

Methods

- A survey was distributed by email to 7,814 platelet donors and 3,805 whole blood (WB) donors from a list provided by the ARC who met inclusion criteria.
- 2,979 platelet donors and 708 whole blood donors completed the survey.
- Both surveys were available online via hyperlink for two weeks.
- Inclusion criteria were chosen to target WB donors who were eligible for platelet donation, and to maximize similarity between the two groups.
- The survey contained questions assessing current donation behavior, influence of potential barriers to platelet donation, and demographic information.
- Potential barriers were rated on a 5-point Likert scale. All other questions were in multiple choice format.
- Data were analyzed to determine the most significant barriers to platelet donation and characteristics of current WB and platelet donors.

Acknowledgments

American Red Cross

References

- American Red Cross, Annual Report Website, 2017
- Bagot K et al, Transfusion, 2013.
- Pagliariccio A et al, Transfusion and Apheresis Science, 2003.
- Ringwald J et al, Vox Sanguinis, 2007.

Motivators of Platelet Donation and Platelet Donation Statistics

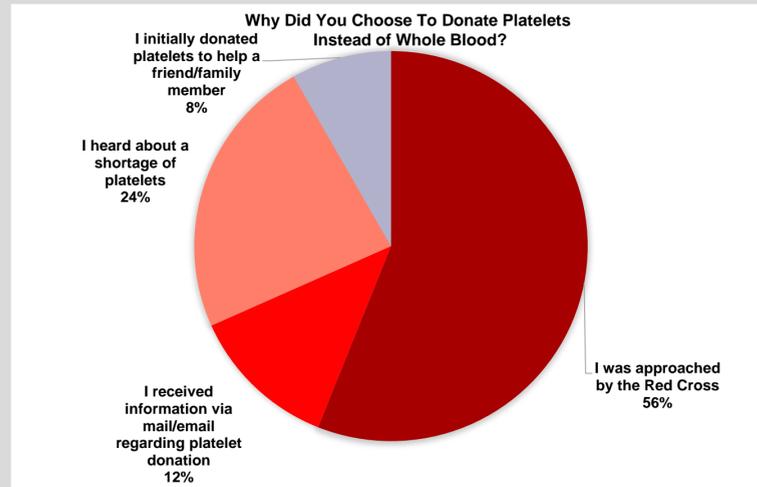


Figure 1: Majority of WB donors (56%) chose to donate platelets because they were approached by the Red Cross.

Age of First Donation

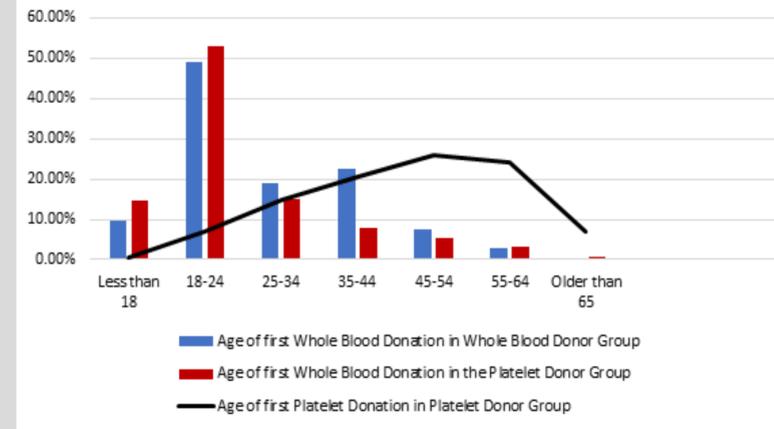


Figure 2: Majority of WB and platelet donors (47%, 51% respectively) were between ages 18-24 years when they first donated.

Barriers to Platelet Donation

Whole Blood Donor likelihood to convert to platelet donation by age

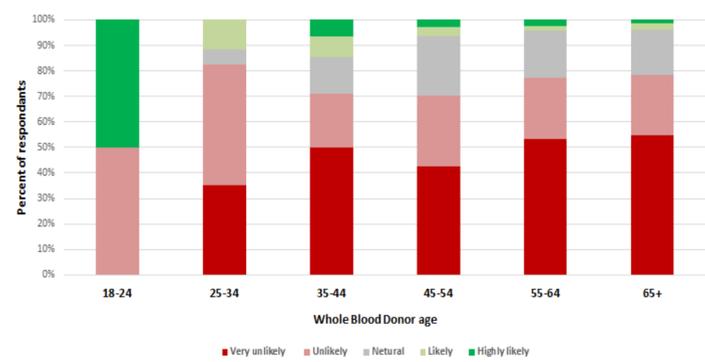


Figure 3: WB donors under 44 yrs. may be most likely to consider platelet donation.

Barriers to Platelet Donation by Donor Type

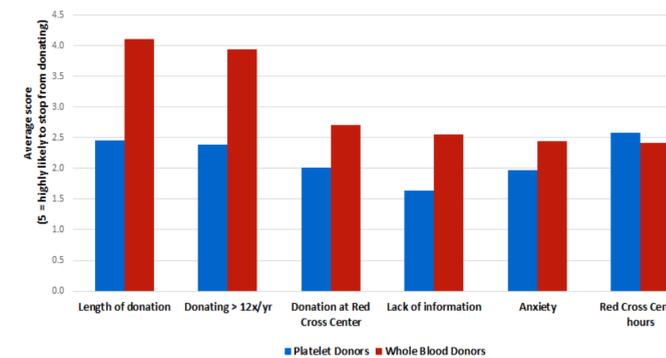


Figure 4: WB donors report five of six measured barriers as greater deterrents to platelet donation vs. current platelet donors.

WB donor - I was anxious about the donation process

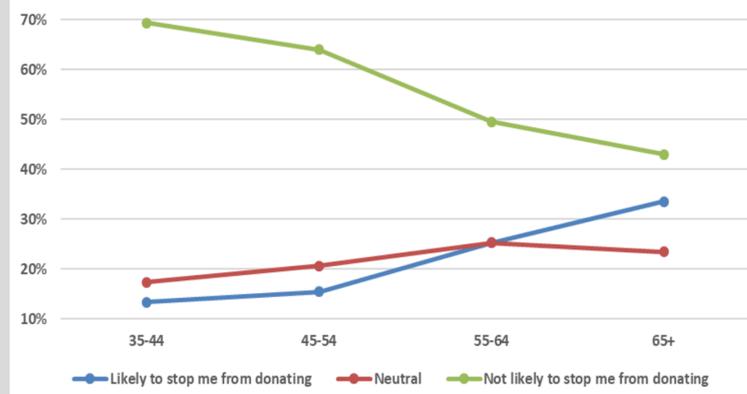


Figure 5: Anxiety about platelet donation process more likely to prevent WB donors aged 55+ vs. those 35-54. P-value < 0.001.

WB donor - Not having enough information about the donation process

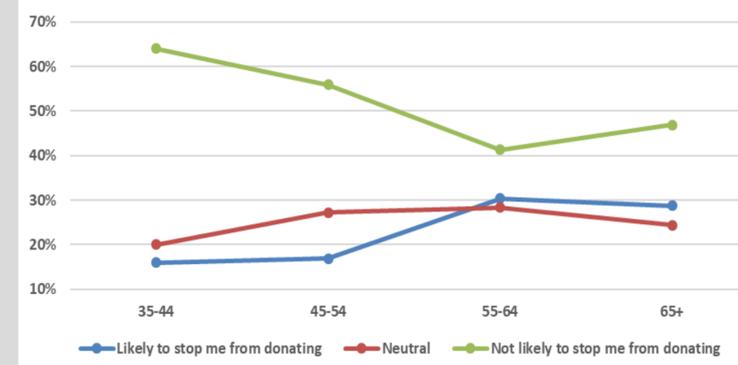


Figure 6: Lack of information about platelet donation process more likely to prevent WB donors aged 55+ vs. those 35-54. P-value 0.006.

Results

- 68% of WB donors were asked to donate platelets with 75% of those individuals being not at all likely to donate in the next year, and only 8% having ever donated platelets.
- Only 6% of WB donors report being likely to donate platelets in the next year.
- Platelet donors are mostly male (70.6%), as this population is sought after for platelet donation for many reasons.
- Average age of WB donors and platelet donors were both 57 years of age.
- The most common race was non-Hispanic white for both WB (82.4%) and platelet donors (92.6%).
- Average years of donating WB prior to converting to platelet donations was 18.5 years.
- Distance to donation center did not have a significant impact on willingness to donate while owning a car or having access to public transportation were positively correlated to willingness to donate.

Conclusions

- The survey results suggest that the most significant barriers to platelet donation are the length of donation and the perceived commitment to donate 12 times per year.
- Regular whole blood donors are unlikely to convert to plateletpheresis despite many reporting being asked by the ARC.
- Future areas of opportunity may include providing more education about the process of platelet donation, decreasing anxiety surrounding plateletpheresis, and changing language surrounding desired donation frequency.
- Future areas of study: impact of transportation vouchers on plateletpheresis, targeted study of potential donors age 18-24.