

Purpose or objective

Knowledge of Source Plasma (SP) donor demographics sheds light on the SP collection industry. Many misperceptions abound pertaining to SP donation. Knowing basics such as donor age, weight, and donation frequency helps understand who donates. Thus, SP industry donation data were analyzed to provide a donor profile. Information about SP donation volume and frequency have previously not been available.

Methods

An industry-wide collection of donor demographic data for 2012 on approximately 1.5 million donors and 25.2 million donations from 7 participating companies were analyzed. The data included age, weight, and gender of donors, and how often they donated. Donation volume limits, set by FDA memorandum, are weight dependent. The collection volume (SP and anticoagulant) for a donor 110-149 lbs is 690 ml; 150-174 lbs, 825 ml; and 175+ lbs, 880 ml. Donor distributions are presented.

Results

Overall, 61% of SP donors are male. Thirty percent of total donations are given by donors age 25-34, and about 55% by donors <35 years old (Figure 1). The overall donation rate is highest for 55-64 year olds, 31/year (Figure 2). For those weighing 110-129 lbs, 71% are female; for those 130-149 lbs, female and male percentages are approximately equal (49%-51%); and ≥150 lbs, a greater percentage is male (e.g. 71% male at 350+ lbs) (Figure 3).

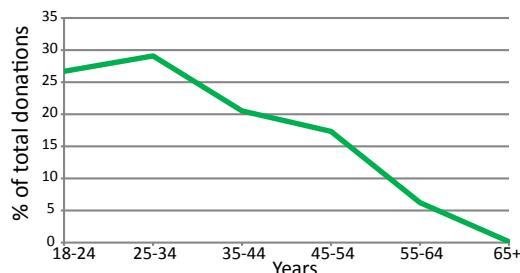


Figure 1% of Total Donations, by Age

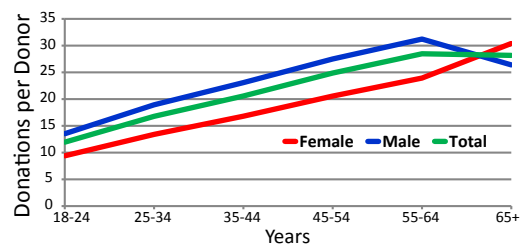


Figure 2. Donations per Donor, by Age and Gender

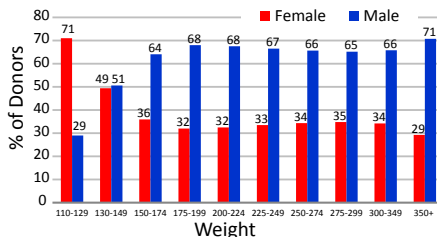


Figure 3. % of Female and Male Donors, in Weight Group

Overall, the highest percentage of female and all donors weigh 150-174 lbs (Figure 4). For males, the highest percentage of donors weigh 175-199 lbs (Figure 4). Donation frequency increases with increasing weight: 10 donations for the lightest donors vs. 17.3 for those 300-349 lbs (Figure 5). The highest donation rate for both females and males is for those weighing 300-349-lbs (Figure 5) though they comprise a small percent of donors.

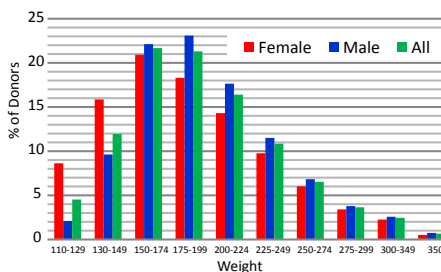


Figure 4. Donor Distribution, by Gender and Weight

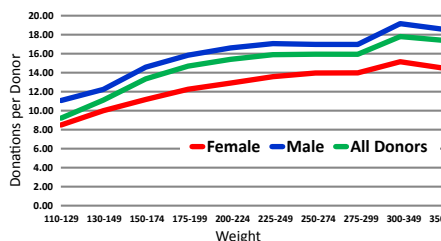


Figure 5. Donations per Donor, by Gender and Weight

Discussion

62% of donors donated the maximum volume, gave 66% of all donations and accounted for 69% of SP collected. SP donors tend to be heavier than the general population. Of male donors, 42.3% are 200+ lbs (35.9% of U.S. males) and 13.5% are 250+ lbs (9.2%); of female donors, 35.0% are 200+ lbs (20.6% of U.S. females) and 11.6% are 250+ lbs (6.1%). The average number of donations/donor was 17.3. 49% donated <7 times, and 9.8% >50 times (Table 1).

For 12 months from their last donation, the number increased to 21.4. 49% of donors made ≤10 donations, and 14% made >50. Contrary to misconception, few donors approach the maximum number of donations; 0.3% give >100 times. 51% of donors were donors for 6 or fewer months in the past 10 years (Table 2).

Donations (N)	% Donations > N	
	12 Months From Last Donation	Calendar Year
1	90.8	88.1
2	79.9	74.9
7	58.4	51.0
8	55.6	48.1
10	51.0	43.3
20	35.7	28.2
30	25.8	19.3
50	14.0	9.8
70	6.7	4.5
84	3.0	2.0
100	0.3	0.2
104	0 (=0.07)	0 (=0.03)
Average	21.4 donations	17.3 donations

Table 1. Donation frequency

- In 12 months, 49% of donors made 10 or fewer donations
- 14% made > 50 donations
- 0.3% made > 100 donations

Months	Group %	Cumulative %
≤12	63.3	63.3
13-24	12.9	76.1
25-60	14.8	90.9
61-108	5.6	96.4
>108	3.6	100
Total %	100	100

Table 2. % Donors by Months as Donor in 10 years

- 63.3%: 12 mos or less
- 12.8%: >1-2 yrs
- 14.8%: >2-5 yrs
- 3.6%: >9 yrs

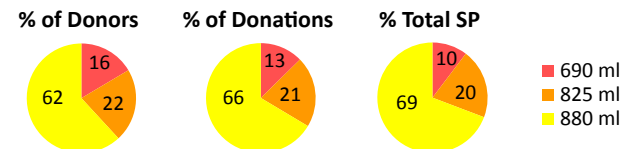


Figure 6. % Donors, % Donations, and % Total SP, by Donation Volume

Summary/conclusions

In contrast to blood donors, the majority of SP donors are male (61%). Young donors, <35 years old, make fewer donations than older donors but make the majority of all donations. Heavier donors donate the most frequently. Fewer than 10% of donors give more than ½ the maximum allowable donations. 76% had been donating for 2 years or less, indicating the need to continue to recruit new donors. Donors who commit to repeated donations are essential for the manufacture of life-saving plasma protein therapies.

Acknowledgments

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Source Plasma Donors: A Snapshot

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Background/Case Studies: Knowledge of Source Plasma (SP) donor demographics sheds light on the plasma collection industry. Many misperceptions abound pertaining to plasma donation. Knowing basics such as donor age, weight, and donation frequency helps understand who donates. Thus, plasma industry donation data were analyzed to provide a donor profile. Information about SP donation volume and frequency have previously not been available.

Study Design/Methods: An industry-wide collection of donor demographic data for 2012 on approximately 1.5 million donors and 25.2 million donations from 7 participating companies were analyzed. The data included age, weight, and gender of donors, and how often they donated. Donation volume limits, set by FDA memorandum, are weight dependent. The collection volume (plasma and anticoagulant) for a donor 110-149 lbs is 690ml [GI]; 150-174 lbs, 825ml [GII]; and 175+ lbs, 880ml [GIII]. Donation distributional statistics are presented.

Results/Findings: Overall, 61% of SP donors are male. Thirty percent of total donations are given by donors age 25-34, and about 55% by donors <35 years old. The overall donation rate is highest for 55-64 year olds, 31/year. For those weighing 110-129 lbs, 71% are female; in those 130-149 lbs, female and male percentages are approximately equal (49%); and ≥ 150 lbs, a greater percentage is male (e.g. 71% male at 350+ lbs).

Overall, the highest percentage of female and all donors weigh 150-174 lbs. For males, the highest percentage of donors weigh 175-199 lbs. Donation frequency increases with increasing weight: 10 donations for the lightest donors vs. 17.3 for those 300-349 lbs. The highest donation rate for both females and males is for those weighing 300-349-lbs: though they comprise a small percent of donors.

Sixty-two percent of donors fell in GIII; 22% in GII; and 16% in GI. Sixty-six percent of donations were made by GIII donors; 21% by GII; and 13% by GI. Of the total volume collected, 69% was donated by GIII donors; 20% by GII; and 10% by GI. Of male donors, 42.3% are 200+ lbs (35.9% of US male population); 13.5% are 250+ lbs (9.2%); and 3.3% are 300+ lbs (2.5%). Of female donors, 35.0% are 200+ lbs (20.6% of US female population); 11.6% are 250+ lbs (6.1%); and 2.7% are 300+ lbs (1.7%).

The average number of donations per donor was 17.5 in 2012. For the 12 months from their last donation the number increased to 21.4; 49% of donors made ≤ 10 donations; 14% made > 50 ; and 0.3% made > 100 .

Conclusion: In contrast to blood donors, the majority of plasma donors are male. Young donors, <35 years old, who provide fewer donations than older donors, make the majority of donations. Heavier donors donate the most frequently. Frequent donors are essential to achieving critical plasma supplies for manufacturing essential lifesaving protein therapies.