Evaluating the Effectiveness of E-Strategies in Research Volunteer Enrollment

Office of Patient Recruitment
NIH Clinical Center
Kirsten Turnbull
Boston University, MA

Background

The NIH Clinical Center Office of Patient Recruitment (OPR) plays a vital role in identifying and referring callers to clinical trials done here at the NIH. OPR is the bridge between research teams and the study volunteers (patients and healthy) needed to participate in our studies. In recent years, according to both peer-reviewed literature[1,2,3] and research completed by a previous OPR intern, study volunteer recruitment using electronic strategies (e-strategies) has become critical to enrolling volunteers.

Objective

To determine if e-strategies are effective and which ones are producing the most successful enrollment results here at the NIH.

Methods

- Sorted call data from March, 2014 – March, 2016 in Microsoft Excel based on type of e-strategy (data included information on callers that were matched, screened, and referred to research studies)
- Searched each caller's name in the Clinical Research Information System (CRIS) to determine if the referral resulted in enrollment
- Interpreted the data based on the following three categories: First Time Enrollment, Subsequent Enrollment, and Same IC Enrollment
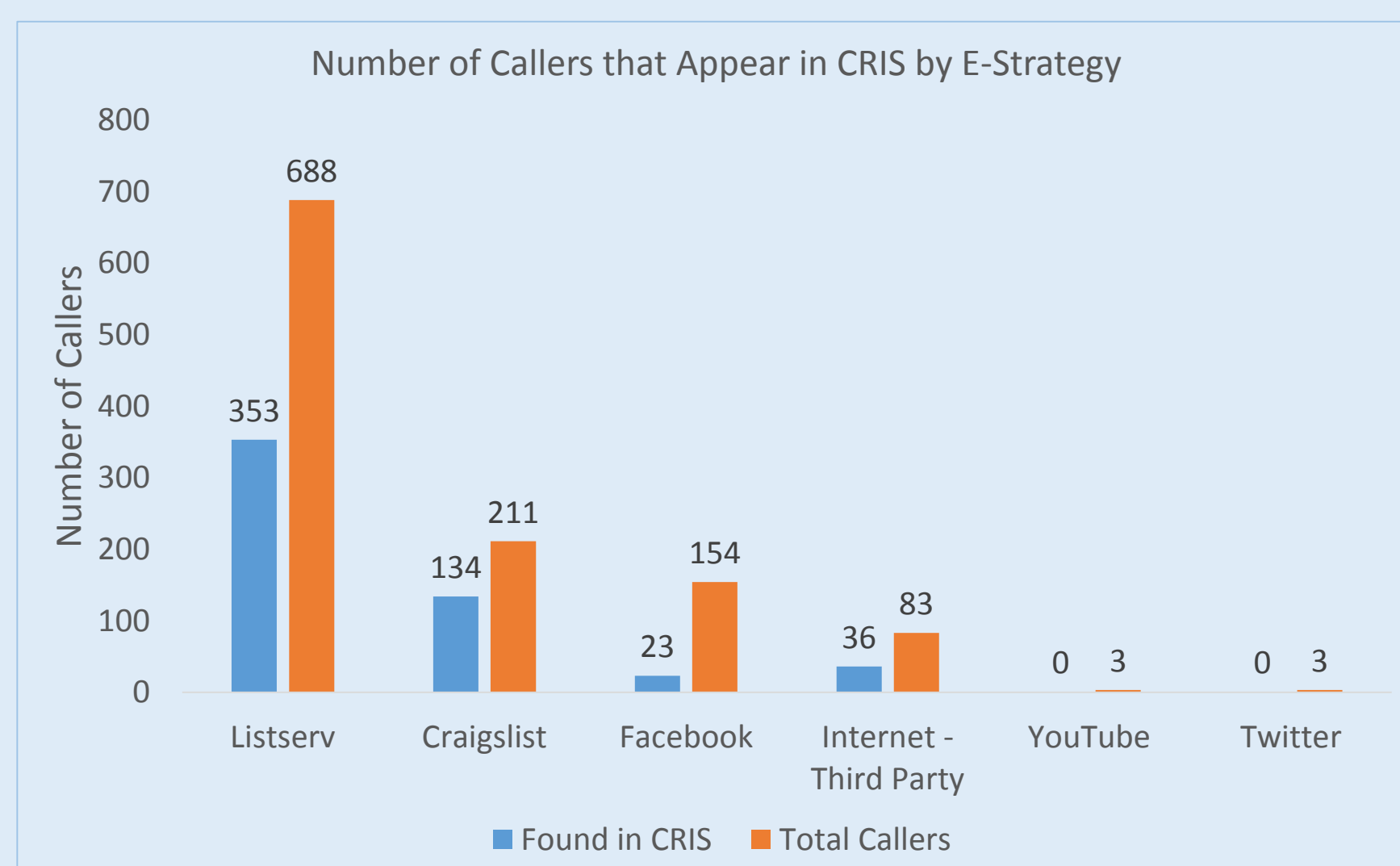
Results

Figure 1 (above): Graph of the number of callers found in CRIS and the total number of callers, divided by e-strategy.

First Time Enrollment: can be claimed only if: 1) a volunteer receives a *new* medical record number, 2) is referred to *any* study and 3) the date of referral is prior to enrollment date.

First Time Enrollment			
E-Strategy	First Time Enrollment	Total Number of Callers	First Time Enrollment Rate (%)
Twitter	0	3	0
Craigslist	61	211	29
Facebook	17	154	11
Listserv	117	688	17
YouTube	0	3	0
Internet-third party	20	83	24

Figure 2 (left): Chart of the First Time Enrollment Data

"First Time Enrollment Rate" refers to the number of first time enrollees divided by the total number of callers, for each e-strategy.

The Higher the Rate, The Better the Enrollee:Caller Ratio!

Results

Figure 3 (right): Pie chart describing the e-strategies that first time enrollees used to learn about clinical trials.
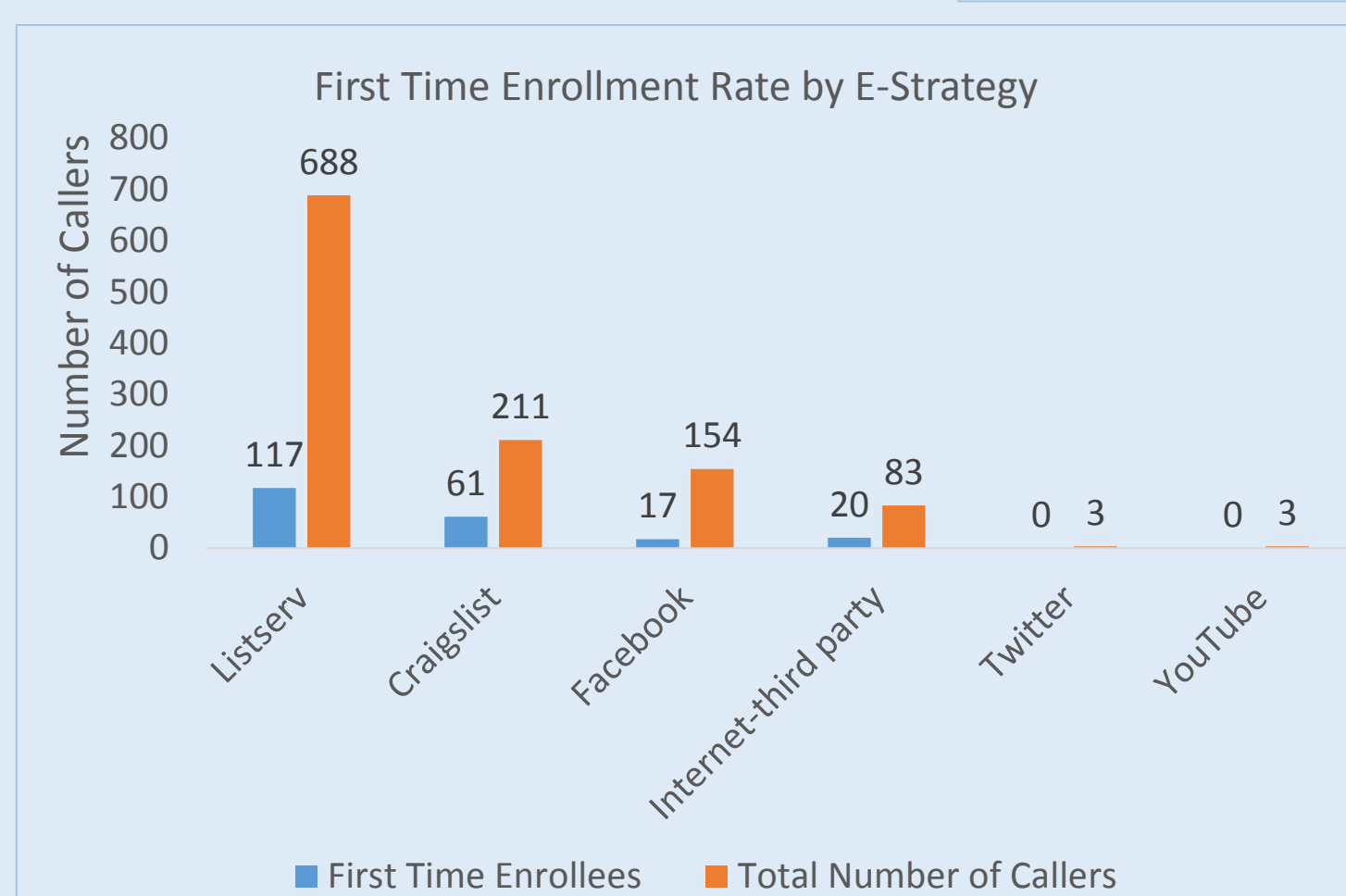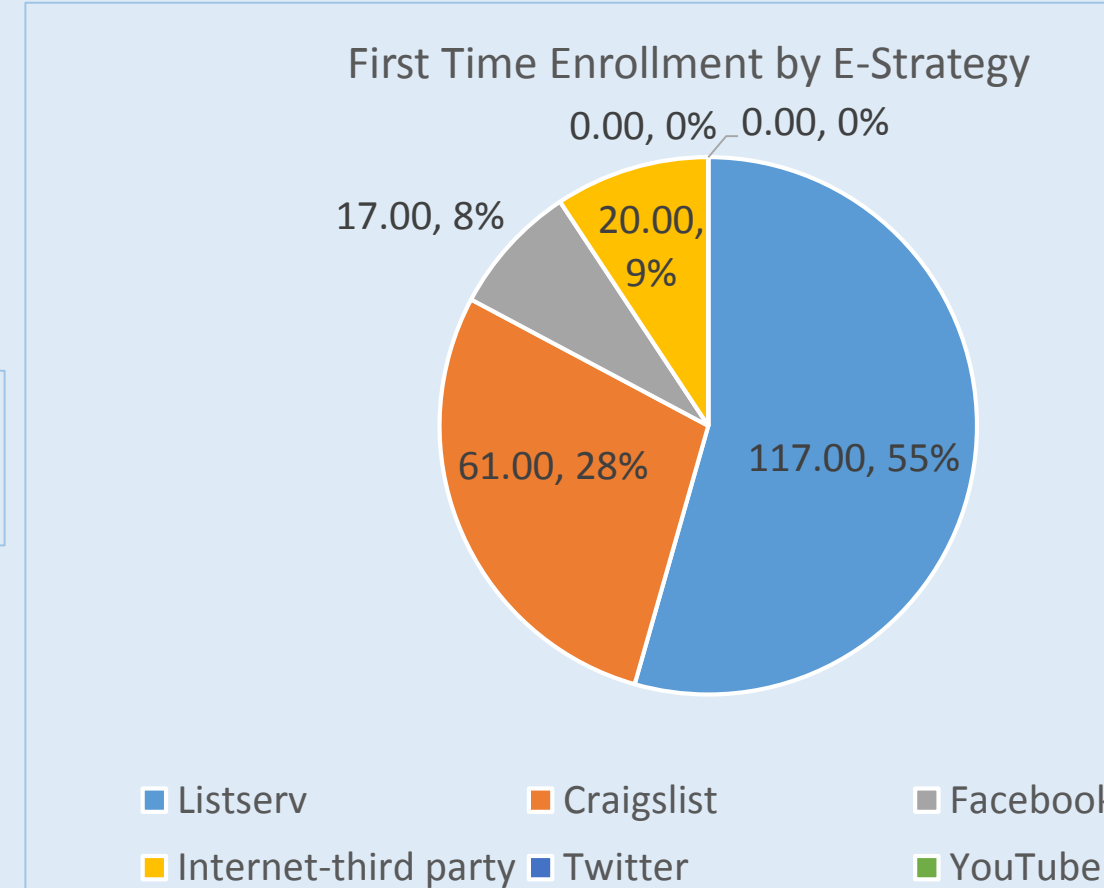
Figure 4 (left): Graph of the number of first time enrollees and the total number of callers, divided by e-strategy.

Subsequent Enrollment: can be claimed only if: 1) a volunteer has a *pre-existing* medical record number, 2) they enroll in the *same* protocol that they were referred to by OPR and 3) the date of referral is before enrollment.

Subsequent Enrollment			
E-Strategy	Subsequent Enrollment	Total Number of Referrals	Subsequent Enrollment Rate (%)
Twitter	0	3	0
Craigslist	9	293	3
Facebook	0	208	0
Listserv	54	975	6
YouTube	0	4	0
Internet-third party	4	118	3

Figure 5 (left): Chart of the subsequent enrollment data.

"Subsequent Enrollment Rate" refers to the number of subsequent referrals that resulted in patient enrollment divided by the total number of referrals, for each e-strategy.
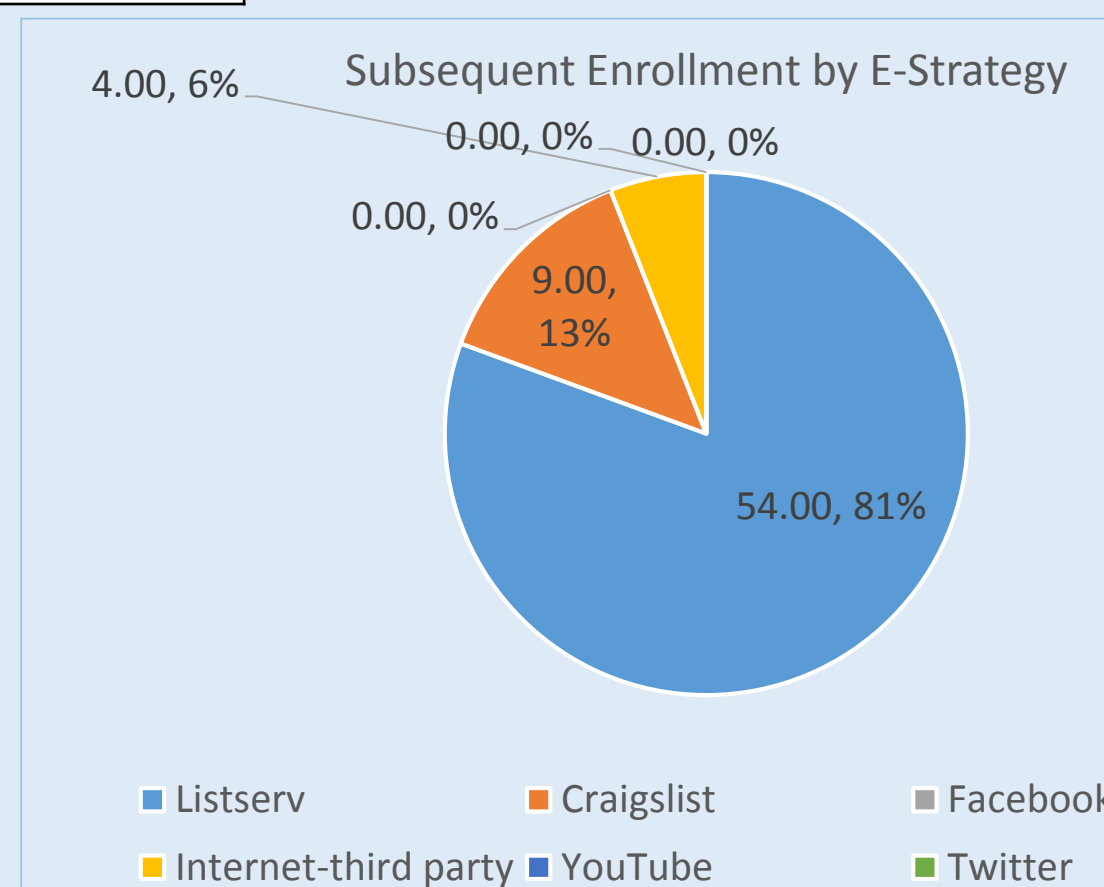
Figure 6 (right): Pie chart describing the e-strategies that enrollees used to find subsequent studies.
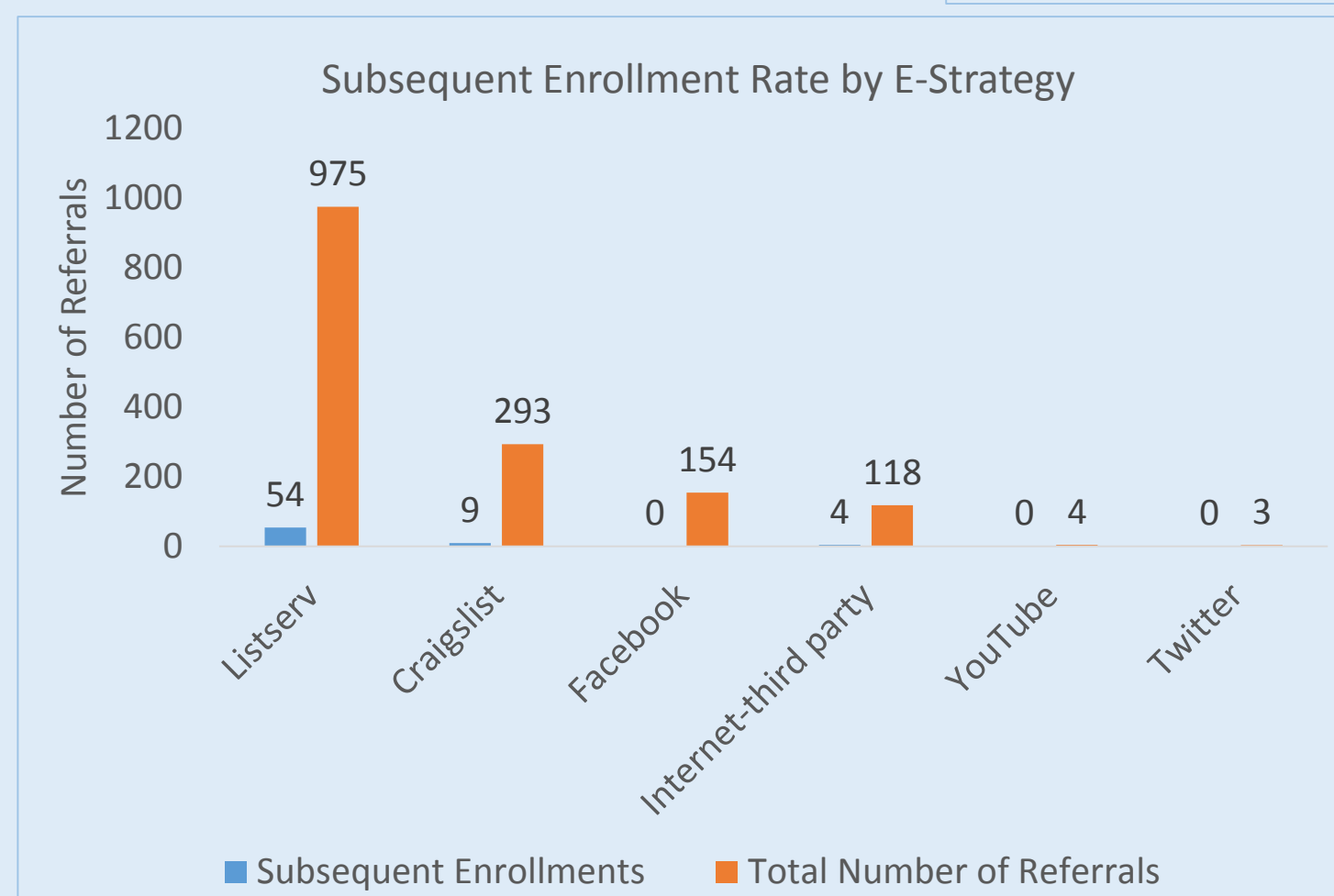
Figure 7 (left): Graph of the number of subsequent referrals that resulted in enrollments and the total number of referrals, divided by e-strategy.

Same IC Enrollment: can be claimed only if: 1) a volunteer enrolls in a protocol in the *same* institute or center of the protocol that they were referred to by OPR and 2) the date of referral is before enrollment.

Same IC Enrollment			
E-Strategy	Enrollment	Total Number of Referrals	Enrollment Rate (%)
Twitter	0	3	0
Craigslist	57	293	19
Facebook	14	208	7
Listserv	157	975	16
YouTube	0	4	0
Internet-third party	37	118	31

Figure 8 (left): Chart of the Same IC enrollment data.

"Enrollment Rate" refers to the number of referrals that resulted in enrollment in the same institute or center the caller was referred to divided by the total number of referrals, for each e-strategy.

Results

Figure 10 (right): Pie chart describing the e-strategies that Same IC enrollees used to find clinical trials.
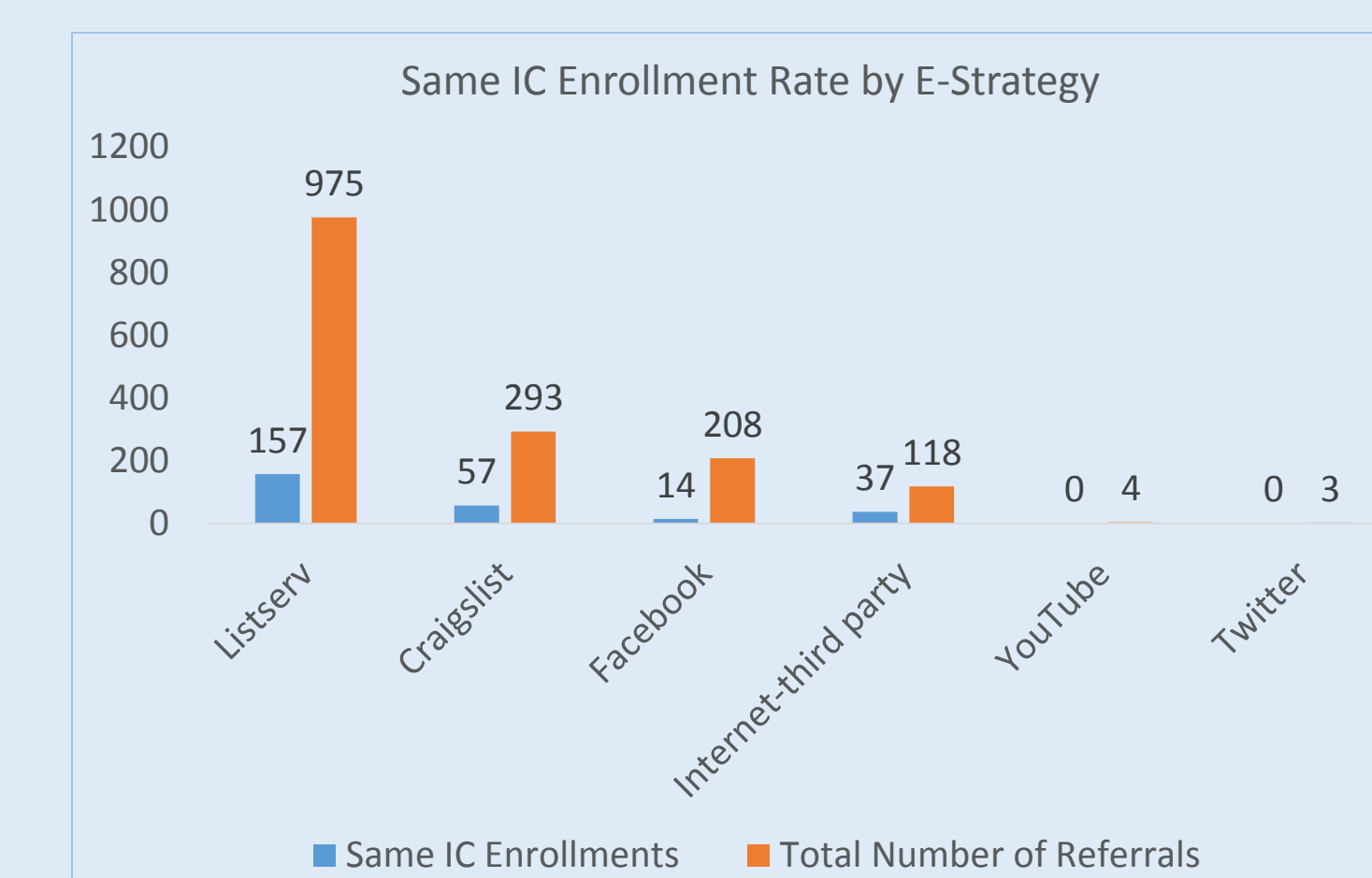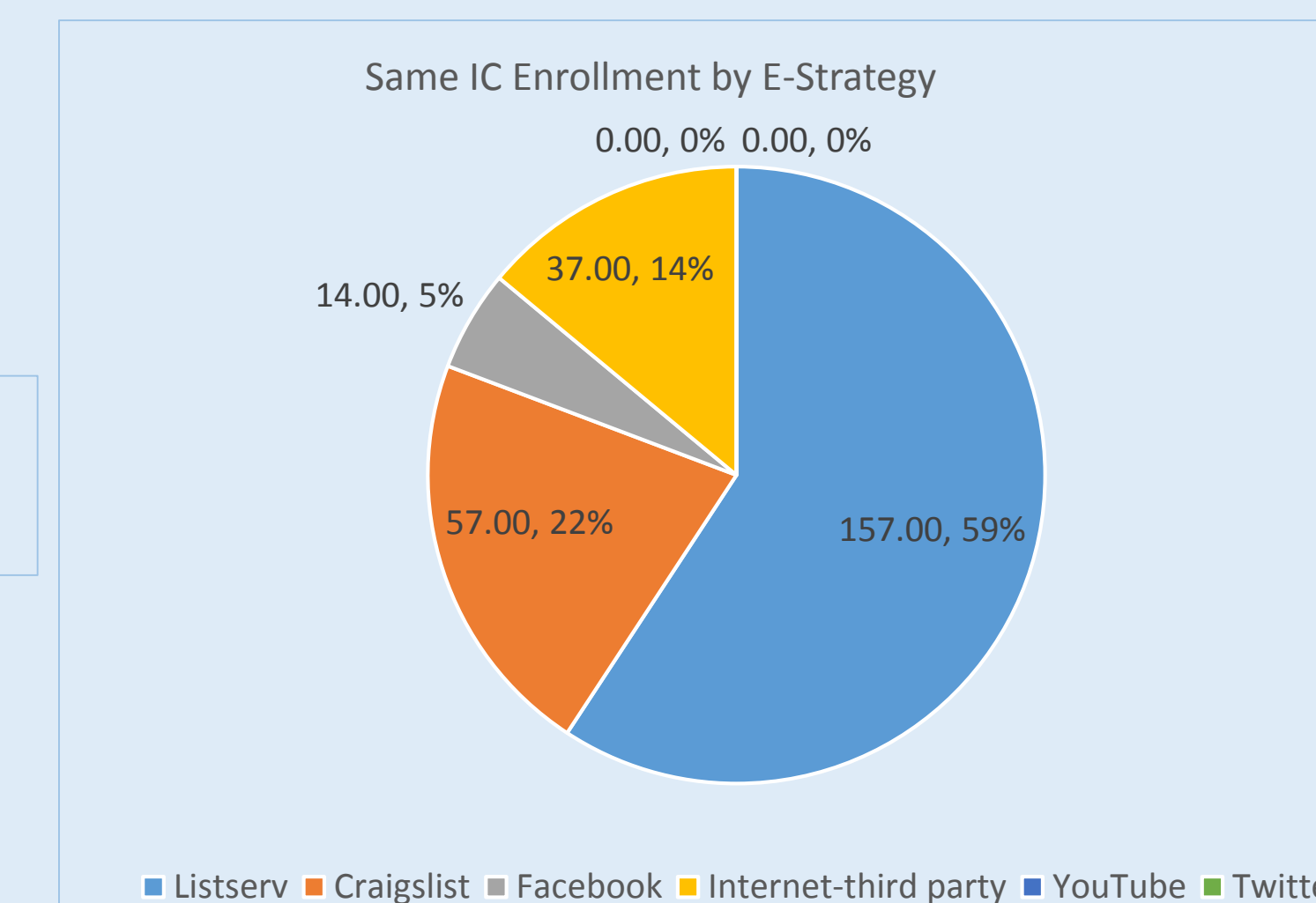
Figure 11 (left): Graph of the number of referrals that resulted in Same IC enrollments and the total number of referrals, divided by e-strategy.

- Of the 1,142 total individuals that heard about trials from these e-strategies and were referred to studies by OPR, 546 (48%) were found in CRIS
- Listservs brought in the most first time enrollees (117), but Craigslist had the highest rate (29%)
- Listservs brought in the most subsequent enrollee referrals (54) and had highest rate (6%)
- Listservs brought in the most Same IC referrals (157), but Third Party sites had the highest rate (31%)

Discussion

- Craigslist, Third Party sites, and the Listservs were clearly effective; is there any way to maximize their effectiveness?
- The wording of the Subsequent Enrollment definition makes it difficult to claim credit: is there a way to change this?
- Twitter and YouTube were ineffective, could the these accounts be used to advertise clinical trials more? Or should they not be used at all?

Acknowledgements

I would like to extend my thanks and appreciation to everyone in the Office of Patient Recruitment, especially my mentor, Ms. Ingrid Frey. I would also like to thank the NIH Clinical Center Summer Internship Program for this amazing opportunity.

References

1. "Engaging E-Patients in Clinical Trials through Social Media. Patient Recruitment and the E-Patient: A Survey Analysis." *Blue Chip Patient Recruitment* (2012). Web. 22 June 2016.
2. Connor, Scott. "Trick or Tweet: Is the New E-Landscape our Answer to Subject Recruitment?" *Monitor* (2010): 37-41. Web. 22 June 2016.
3. Ellis, Lucy. "Pharma's finally booted-up but too robotic for the social web." *Scrip 100* (2012): 62-63. Web. 22 June 2016.