

Enrolling Older Adults into an ADRD Research Registry via Electronic Health Record Message: A Feasibility Study

Kristin Harkins¹, Amy Bleakley², Erin Maloney², Morgann Adams¹, Jessica Langbaum³

¹University of Pennsylvania, Philadelphia, PA, USA; ²University of Delaware, Newark, DE, USA; ³Banner Alzheimer's Institute, Phoenix, AZ, USA.



Background

- Addressing the public health challenge of Alzheimer's Disease and Related Dementias (ADRD) requires studies to enroll many participants who are representative of individuals with ADRD or those at high-risk for developing the disease.
- There is growing interest in Electronic Health Record (EHR) patient portals as research recruitment tools, but evidence of their effectiveness is needed.
- Previous research has developed theory-driven, evidence-based messages to recruit cognitively healthy older adults into ADRD research registries via social media ads.
- This pilot study assessed the feasibility of deploying these same messages through the EHR.

Methods

We used the “SlicerDicer” analytic tool to identify Penn Medicine patients who met the following criteria:

- age 50 to 80
- “activated” EHR patient portal
- residing in zip codes indicating proximity to Penn campus
- No diagnoses indicating cognitive impairment
- opted-in to EHR contact for research.

We targeted an equal split among invites sent across the following demographic characteristics: **race and ethnicity** (non-Latino White, non-Latino Black, and Hispanic/Latino), **age** (50-59, 60-69, and 70-80), and **sex** (female and male).

Methods

- We sent EHR messages inviting patients who met the eligibility criteria to join the Penn Memory Center Brain Health Research Registry. We sent ~200 invitation messages per week for four weeks.
- Patients who received the message could select “not interested” or “interested.”
- Those who responded “interested” received a follow-up message with a link to join the registry, which requires providing contact and demographic information.
- We tracked rates of joining the registry overall and within demographic groups.

Results

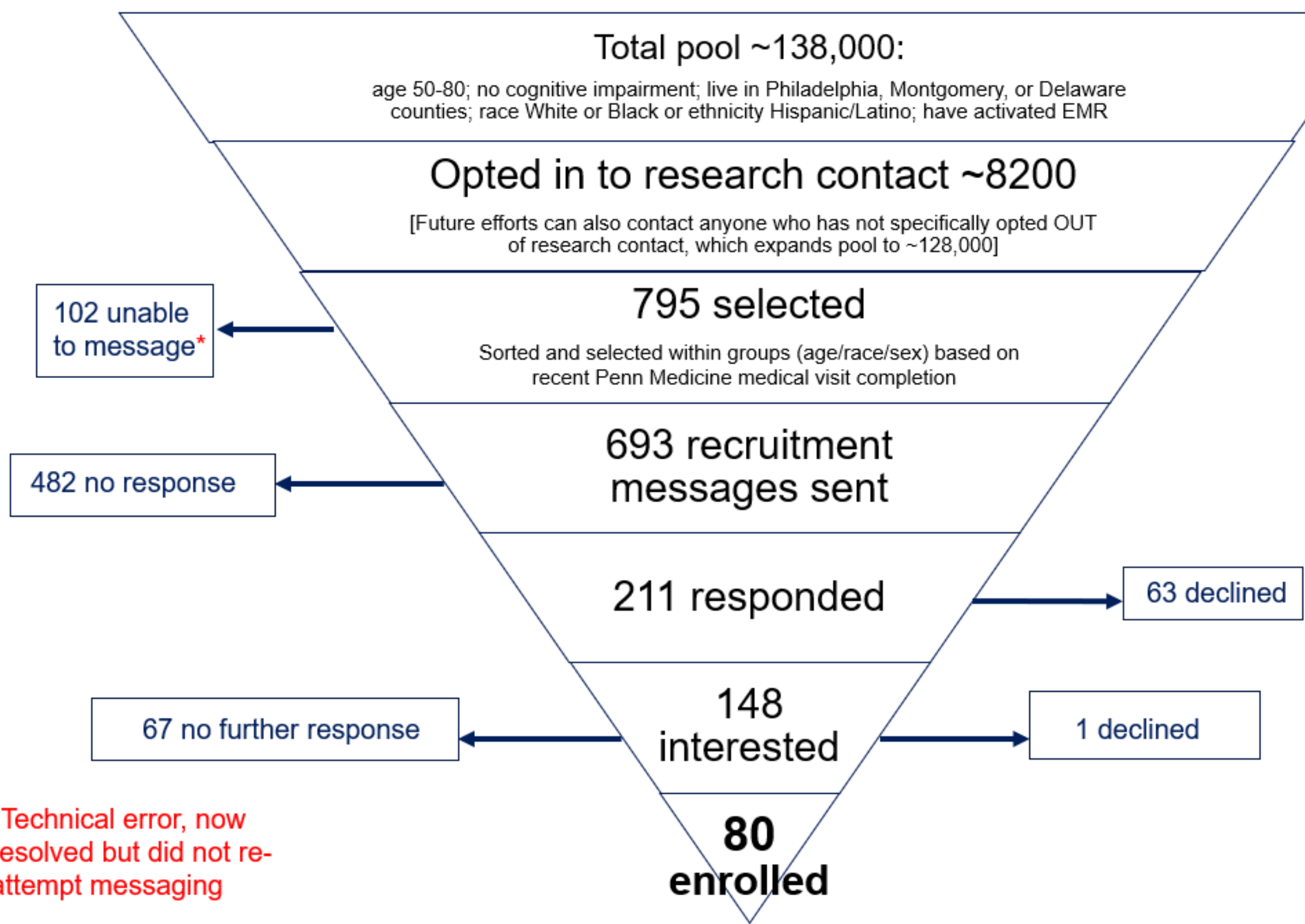


Figure 1: Recruitment Funnel

Results

- 693 recruitment messages were sent via EHR.
- The response rate was **30.4%** and 80 patients enrolled for a join rate of **11.5%**.
- Join rates were similar for men (11.8%) and women (11.2%) and across age groups (50-59: 10.4%, 60-69: 11.7%, 70-80: 12.8%) (all χ^2 $p>0.05$).
- Differences were seen between racial and ethnic groups, with the highest join rate for non-Latino White patients (16.2%) followed by Hispanic patients (9.9%) and non-Latino Black patients (8.9%) (χ^2 $p=0.03$)

Conclusions

- Evidence-based recruitment messages developed for social media were an efficient means of enrolling older adults into an ADRD research registry through the EHR.
- EHR outreach may be more effective at enrolling non-White participants and men than social media ads at lower cost.
- Future research is needed to assess whether patients who enroll in a registry via EHR message ultimately join an ADRD clinical study.

Acknowledgements

This work was supported by the National Institute on Aging (R01AG063954).