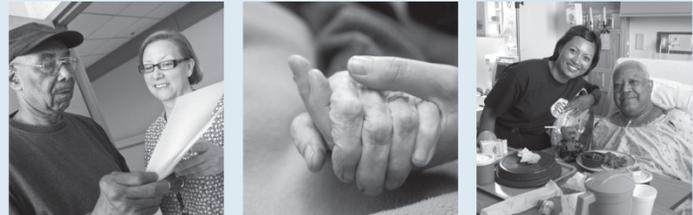


WAYS I CARE
VALUES WE LIVE BY



EVALUATING THE USABILITY OF A MOBILE APPLICATION FOR SELF-MANAGEMENT OF UNHEALTHY ALCOHOL USE

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INTEGRITY

COMMITMENT

ADVOCACY

RESPECT

EXCELLENCE



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Background and Problem

- Unhealthy alcohol use, from risky drinking to alcohol use disorder, represents a major cause of preventable morbidity and mortality
- One of the most common conditions among post-9/11 service members and Veterans
 - estimates range from 22% to 40%
- Only a small minority of post-9/11 Veterans receive alcohol-related care
 - Common barriers to care include concerns about anonymity (stigma), time constraints, and travel distance
 - Those that do seek care often take years
- Mobile applications, delivered on smartphones, may address these barriers

Hawkins et al., *Drug Alcohol Depend*, 2010; Hoge et al., *N Engl J Med*, 2004; Stecker et al, *Psychiatr Serv*, 2013; Goldberg et al., *Psychiatr Serv*, 2019; Kim et la., *Psychiatr Serv*, 2010

Step Away

- Developed by faculty at the University of Alaska
 - iOS operating system
- Conceptual framework:
 - Motivational enhancement therapy (MET) – time-limited, non-judgmental approach that supports a person's motivation to change
 - Relapse prevention strategies – help persons identify and cope with situations that increase risk of relapsing or drinking inconsistently with their goals
 - Community reinforcement – highlights the importance of a person's social life and the role of supportive others; non-drinking activities in achieving goals

Key Step Away Features



Study Aims

- The aims of this pilot study were to assess:
 - 1) Acceptability, usability and use of Step Away among post-9/11 Veterans,
and
 - 2) Participants' self-reported heavy drinking days and consequences of alcohol use over 6 months

Methods

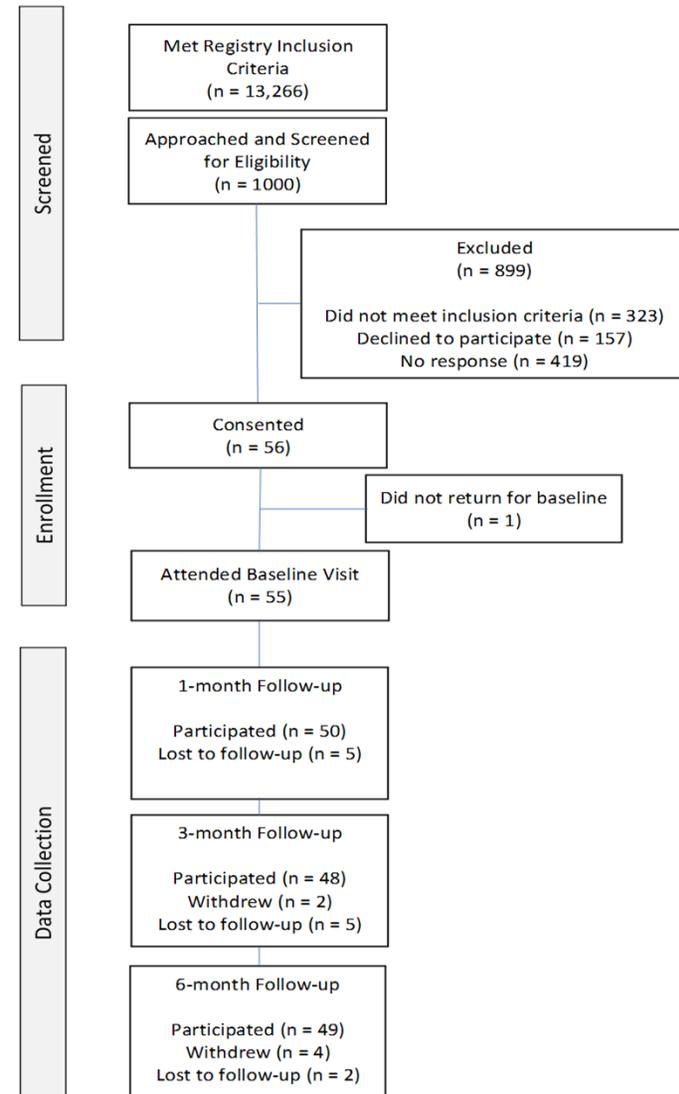
- Participants: Post-9/11 Veterans with AUDIT-C scores >4 who used VA care in prior 6 months
- Design: single-arm prospective cohort study
 - Baseline research assessment and follow-up at 1, 3, and 6 months
 - Participants compensated up to \$150
- Recruitment:
 - Identified post-9/11 Veterans with AUDIT-C >4 in electronic medical record
 - Mailed invitation letters followed by up to 3 telephone calls
 - Brief Telephone Screen
- Eligibility:
 - Men: ≥ 5 standard drinks any day or ≥ 15 drinks/week in prior 4 weeks
 - Women: ≥ 4 standard drinks any day or ≥ 8 drinks/week in prior 4 weeks
 - Served post-9/11
 - Own an iPhone
 - 18-55 years old

Measures, Outcomes and Administration

Measure	Instrument/ Definition
Usability (Effectiveness, efficiency, satisfaction)	System Usability Scale (SUS) (1-100; ≥ 70 acceptable)
Acceptability and Satisfaction	Semi-structured Interviews
Step Away Use	App use
% of participants using app	
Mean number of episodes per week	
Mean minutes per week	
Alcohol	
Heavy drinking days (HDD) prior 30 days	Time-Line Follow-Back Interview
Drinking-related consequences prior 3-months	Short Inventory of Problems-Revised

Recruitment Results

- **1,000 potentially eligible Veterans were sent letters and contacted by phone**
 - 576 (58%) did not respond or declined to participate
 - 323 (32%) screened ineligible
 - No iPhone (23%)
- **55 enrolled in study**
 - Subsample invited to complete interviews
- **Follow-up rates**
 - 1-month – 91%
 - 3-months – 87%
 - 6-months – 89%

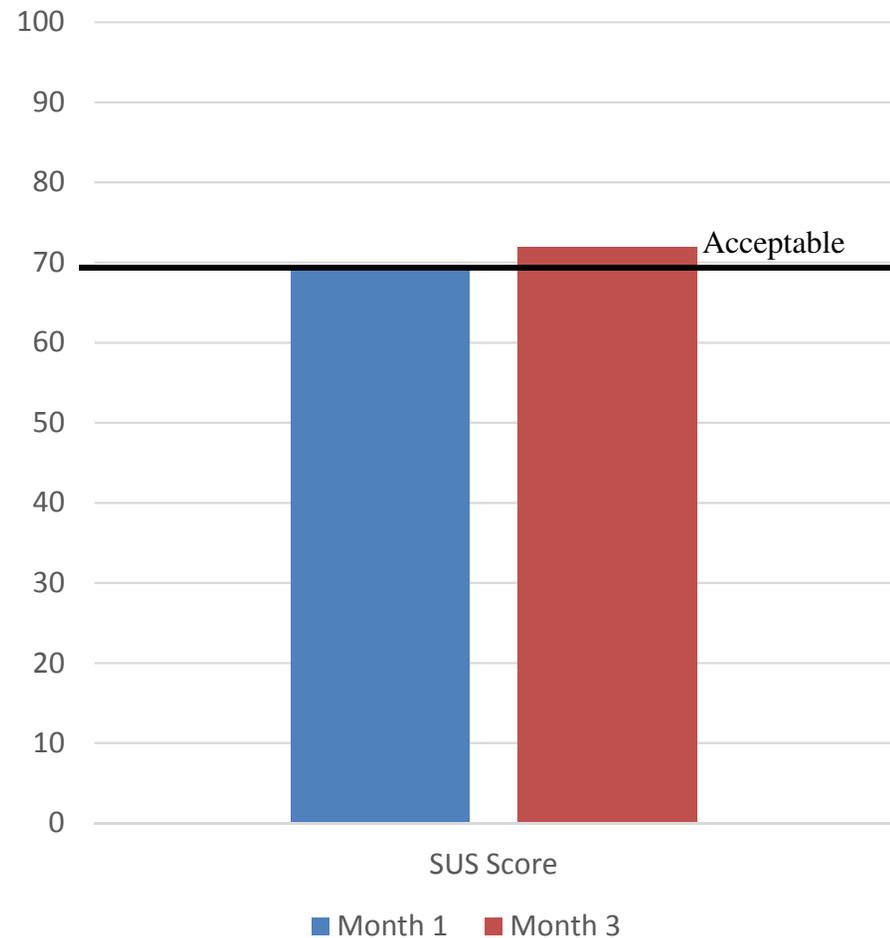


Participant Characteristics

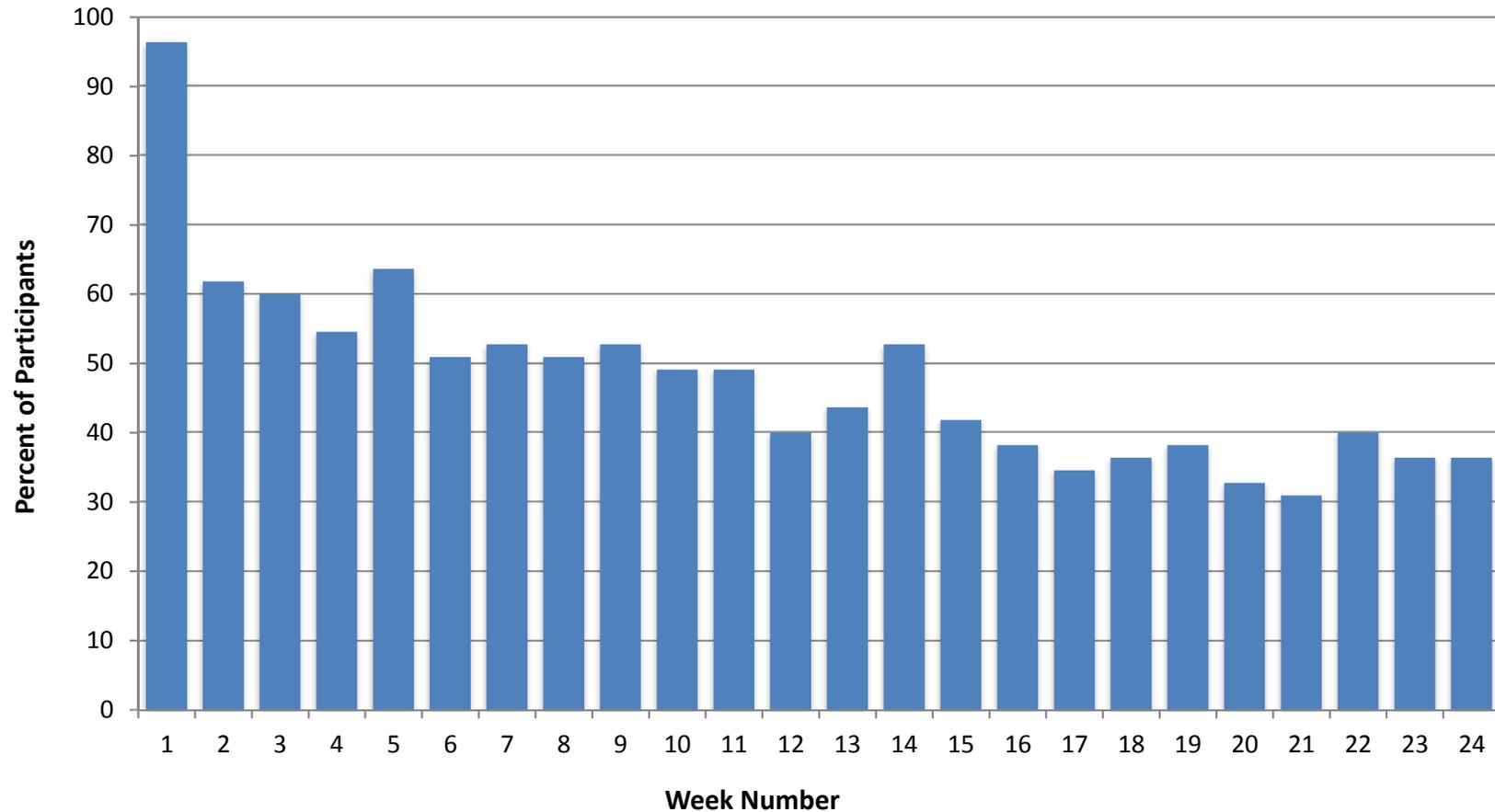
	Mean (SD) or % n = 55
Demographics	
Age	37.4 (7.6)
Women	16.4%
White	81.8%
Employed	76.4%
Income > \$50K	50.9%
Clinical	
Alcohol Use Disorder	82%
Heavy Drinking Days	8.7

Step Away Usability

- Participants' mean SUS scores at 1- and 3-months were 69.3 (SD=19.7) and 71.9 (SD=15.8), respectively
- Scores suggest Step Away has acceptable usability ratings

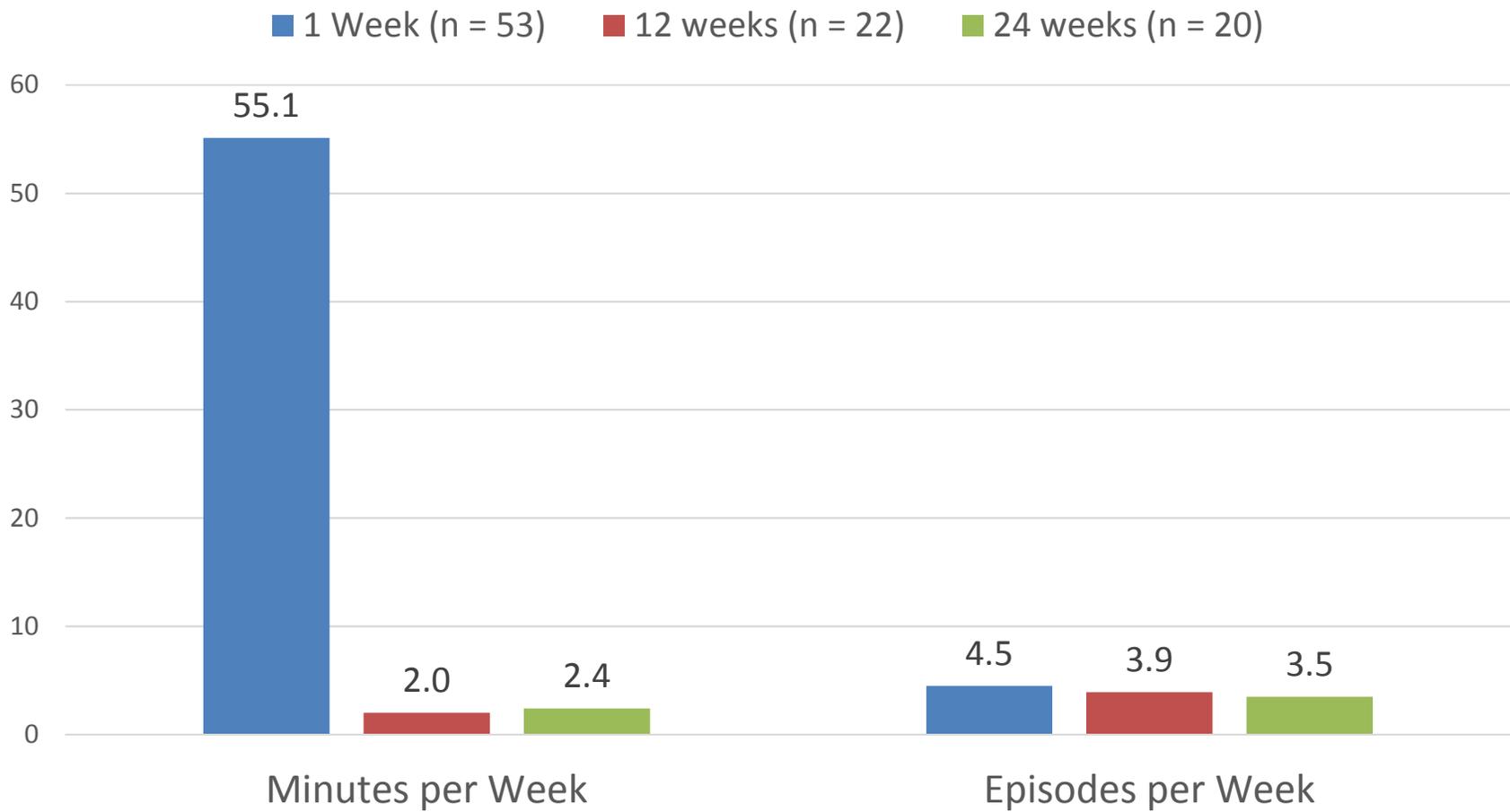


Participants' use of Step Away



Participants primarily used on-going assessment and feedback and high risk times features

Mean Number of Minutes and Episodes per Week in Step Away



Participants' Self-reported Impact of Step Away (n = 21)

- Increased awareness of alcohol consumed

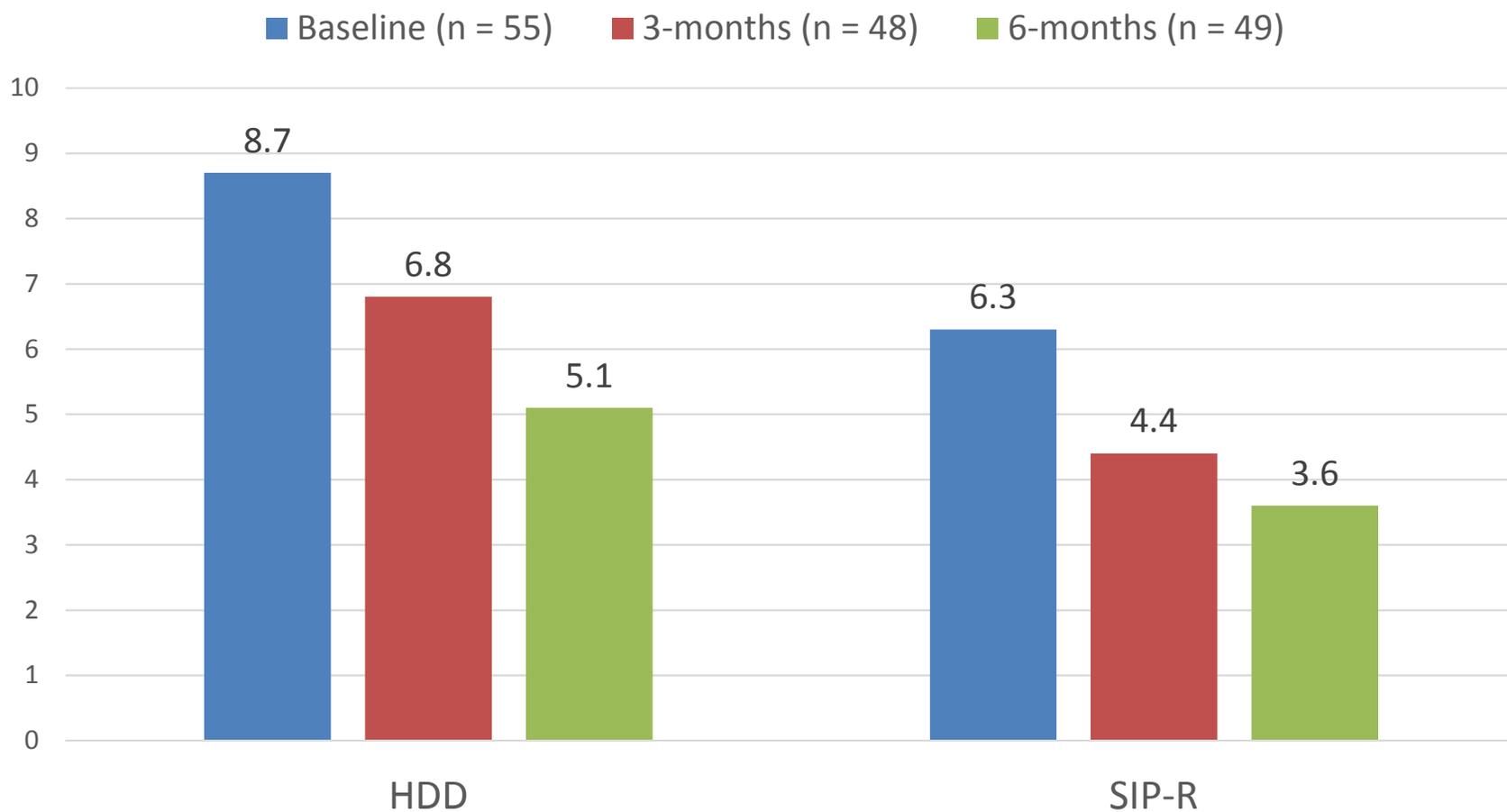
“the use of the features ... are providing me with a consciousness of the fact that I've been going down the wrong road where alcohol is concerned. It's on my mind all the time now.”

Participants' self-reported impact of Step Away (n = 21)

- Promoted decisions to reduce alcohol use

“... I've actually cut back quite a bit in consumption and it's made a big difference to me. It's educational, it inspires me on thinking about why and how and the reasons other people might drink as well and I think that's opened up a big window to me as far as prevention and not drinking as much.”

Heavy Drinking Days and Alcohol-related Problems



Conclusions

- Step Away use may be associated with reductions in heavy drinking days and drinking related problems
- Post-9/11 participants reported Step Away as helpful in increasing awareness of alcohol use, which may influence readiness to change drinking patterns
- Participants' use of Step Away declined over time and primarily involved accessing daily interview and weekly feedback features after week 1
- Limitations include single-arm prospective cohort design, repeated assessment and demand characteristics
- Next steps include future evaluation using RCT design and control condition

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The views expressed reflect the opinions of the authors and not the Department of Veterans Affairs

Questions

- Questions
- Contact information: Eric.Hawkins@va.gov
- Thank you!