

AWARD NUMBER: W81XWH-20-1-0756

TITLE: Supporting Caregivers of Veterans with TBI and Mixed Dementia: The REACH Hope Behavioral Intervention

PRINCIPAL INVESTIGATOR: Linda Nichols, PhD

CONTRACTING ORGANIZATION: VA Medical Center, Memphis, TN

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14. ABSTRACT Family members who care for Veterans with post traumatic brain injury (TBI) dementia often have heavy burden. Currently, there is no caregiving intervention that combines one-on-one coaching with digital flexibility for caregivers of Veterans with both TBI and dementia. The Department of Veterans Affairs (VA) national Caregiver Center and Virginia Commonwealth University have developed and are evaluating a one-on-one plus smartphone-based intervention, REACH Hope. REACH Hope combines two award-winning interventions: the VA's REACH VA (Resources for Enhancing All Caregivers Health) one-on-one behavioral caregiving intervention and the Department of Defense's Virtual Hope Box mobile app. The REACH VA component involves training in problem-solving and stress management skills one-on-one from a coach. The customizable Hope Box app provides anytime access to personalized coping and stress reduction content. This randomized clinical trial is testing the ability of REACH Hope to improve caregivers' burden, depression and anxiety, and confidence in themselves as caregivers, as well as Veteran safety. In a wait-list control design, half of 110 caregivers of Veterans with TBI and dementia receive REACH Hope at the beginning of the study and half after three months. Outcomes are measured at the start of the study, 3 months, 6-months for all participants, and 9-months later for wait list control participants.					
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1. INTRODUCTION:

Family members who care for Veterans with both traumatic brain injury (TBI) and dementia often have heavy burden. Currently, there is no caregiving intervention that combines the strengths of one-on-one coaching with digital flexibility. In addition, there are no interventions for caregivers of Veterans with both TBI and dementia. The Department of Veterans Affairs (VA) national Caregiver Center and Virginia Commonwealth University have developed and are evaluating a one-on-one plus smartphone-based intervention, REACH Hope. REACH Hope combines two award-winning interventions: the VA's REACH VA (Resources for Enhancing All Caregivers Health) one-on-one behavioral caregiving intervention and the Department of Defense's Virtual Hope Box mobile app. The REACH VA component involves training in problem-solving and stress management skills one-on-one from a coach. The customizable Hope Box app provides anytime access to personalized coping and stress reduction content. This randomized clinical trial is testing the ability of REACH Hope to improve caregivers' burden, depression and anxiety, and confidence in themselves as caregivers, as well as Veteran safety. In a wait-list control design, half of 110 caregivers of Veterans with TBI and dementia receive REACH Hope at the beginning of the study and half after three months. Outcomes are measured at the start of the study, 3 months, 6-months for all participants, and 9-months later for wait list control participants.

2. KEYWORDS: Provide a brief list of keywords (limit to 20 words).

Brain injuries, Traumatic
Dementia
Caregivers
Veterans
Military Family
Mobile applications

3. ACCOMPLISHMENTS:

What were the major goals of the project?

Goals	Timeline	Dates	Dates and Year 1 % Completed
Major Task 1: Prepare Regulatory Documents	Months		
<i>Milestone Achieved: Local IRB Approval, Memphis, VCU</i>	4	Nov-2021	100%, Memphis 26-Mar-2020 VCU 17-Jul-2020
<i>Milestone Achieved: HRPO Approval</i>	6	Jan-2021	100%, 30-Nov-2020
<i>Milestone Achieved: Local IRB and HRPO Approval as needed and yearly</i>	4-36	Nov-2021 - Aug-2023	Memphis continuing review 11-Jan-2023 VCU continuing review – change in site PI so new approval 2-Aug-2022. HRPO continuing review 25-Jan-2023
Major Task 2: Train Study Staff	Months		
<i>Milestone(s) Achieved: Staff hired</i>	1-6	Aug-2020- Jan-2021	100%, (staff hired 10-Jun-2021; (replacement staff hired 1-Jul-2022)
<i>Milestone(s) Achieved: Staff trained, certified</i>	2-9	Sep-2020- Apr-2021	100%, 28-Jun-2021 (replacement staff hired 1-Jul- 2022)
<i>Milestone Achieved: Maintained trained and certified Staff throughout study</i>	2-36	Sep-2020-- Aug-2023	Ongoing
Major Task 3: Finalize Research Protocol/Manual of Operations (MOP)	Months		
<i>Milestone(s) Achieved: REACH Hope Program Coach Manual with format, topics and scripts</i>	8-9	Mar-2021- Apr-2021	100%, 02-Feb-2021
<i>Milestone(s) Achieved: Caregiver Notebooks</i>	8-9	Mar-2021- Apr-2021	100%, 09-Feb-2021
<i>Milestone(s) Achieved: Data collection forms, scripts, and documentation</i>	8-9	Mar-2021- Apr-2021	100%, 31-Jan-2021
Major Task 4: Screening and Recruitment	Months		
<i>Milestone(s) Achieved: Screening forms and scripts</i>	6	Jan-2021	100%, 01-Jul-2020
<i>Milestone(s) Achieved: Brochures, web site, social media blurbs</i>	6	Jan-2021	100%, Website live 16-Jan-2021; Brochures mailed 15-Feb-2021

Goals	Timeline	Dates	Dates and Year 1 % Completed
<i>Milestone(s) Achieved: Approximately 250 participants screened</i>	29	Jan-2023	64.0% screened (n=160), first person screened 18-Feb-2021
<i>Milestone(s) Achieved: 110 participants recruited</i>	29	Jan-2023	100% (n=110)
Major Task 5: Randomization and Intervention Delivery	Months		
<i>Milestone(s) Achieved: 110 participants randomized</i>	29	Jan-2023	100% (n=110) enrolled and randomized, first person enrolled 25-Mar-2021
<i>Milestone(s) Achieved: Completed interventions</i>	9-35	Apr-2021-Jul-2023	87.3% (n=96) completed; 14 did not complete intervention
Major Task 6: Data Collection/Data Entry	Months		
<i>Milestone Achieved: Data collection (385 total interviews)</i>	9-39	Apr-2021-Oct-2023	90.4% (n=348), first data collected 25-Mar-2021 90 (81.8) project evaluations completed
<i>Milestone Achieved: Data entry, quality</i>	39	Oct-2023	90.4% (n=348)
Major Task 7: Data Analysis	Months		
<i>Milestone(s) Achieved: Data analysis</i>	42	Feb-2024	Baseline analysis completed
Major Task 8: Preparation and Dissemination of Results	Months		
<i>Milestone(s) Achieved: Papers and Presentations</i>	28-42	Dec-2022-Feb-2024	
<i>Milestone(s) Achieved: Manuals and materials and plan for dissemination</i>	42	Feb-2024	Not yet begun

What was accomplished under these goals?

1) Major activities

- Completed recruitment
- Completed intervention delivery
- Continued data collection

2) Specific objectives

- Aim 1 completed: Modify/refine the REACH Hope intervention and caregiver materials for caregivers of Veterans with TBI and AD/MD, in conjunction with subject matter experts (SMEs).

3) Significant results

- See baseline data Appendices

4) Other achievements

- See Products below

What opportunities for training and professional development has the project provided?

- Nothing to report.

How were the results disseminated to communities of interest?

- Two presentations on study progress and protocol

What do you plan to do during the next reporting period to accomplish the goals?

- Continue to collect data
- Begin data analysis and dissemination

4. IMPACT::

What was the impact on the development of the principal discipline(s) of the project?

- No outcomes yet. However, grant to Department of Defense Traumatic Brain Injury and Psychological Health Research Program (TBIPHRP) funded – all 5 VA Polytrauma TBI Model Systems – Richmond, Minneapolis, Palo Alto, Tampa, and San Antonio, as well as Caregiver Support Program’s Caregiver Center at Memphis. Project will explore implementation of REACH for caregivers of Veterans with TBI (see Products).

What was the impact on other disciplines?

- Nothing to report

What was the impact on technology transfer?

- Nothing to report

What was the impact on society beyond science and technology?

- Nothing to report

5. CHANGES/PROBLEMS:

Changes in approach and reasons for change

- Difficulty recruiting – included caregivers of non-Veterans from VCU for recruitment
- Study co-PI Paul Perrin moved to University of Virginia from Virginia Commonwealth University 10-Aug-2022; this will necessitate a change in funding to UVA from Research Inc at Memphis VAMC and Ron Seel, VCU co-PI becoming VCU site PI

Actual or anticipated problems or delays and actions or plans to resolve them

- Problem: Recruitment has slowed down
Solution
With permission of CDMRP Science Officer, included caregivers of non-Veterans from Virginia Commonwealth University in recruitment
Changed consent form and amended study at both sites
- Problem: Caregiver difficulty downloading Hope Box app
Solutions:
Reported to DoD
VA may take over the Hope Box app

Changes that had a significant impact on expenditures

- Delay in VCU invoices

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

- One AE reported to Memphis VAMC IRB – death of hospitalized caregiver occurred 7/2/23; PI made aware 8/17/23 with telephone call from son and reported to IRB that day

Significant changes in use or care of human subjects

- Nothing to report
- Memphis VAMC IRB approval - 26-Mar-2020, Memphis continuing review – 11-Jan-2023
- VCU IRB approval - 17-Jul-2020, VCU continuing review – change in site PI so new approval 2-Aug-2022

6. PRODUCTS:

Publications, conference papers, and presentations

- CDMRP IPR presentation presented August 20, 2021 (included in Year 1 Annual Report)
- Tyler, C.M., Ohayagha, C., MacPherson, A.R., Ulbing, A., Nichols, L.O., Perrin, P.B., Martindale-Adams, J.L., Clark, C., Martin, J.R., Zuber, J.K., Seel, R.T., & Perera, R.A. (2022, February). Supporting caregivers of veterans

Journal publications.

- Nothing to report

Books or other non-periodical, one-time publications.

- Nothing to report

Other publications, conference papers, and presentations

- Nothing to report

Website(s) or other Internet site(s)

- REACH Hope site - https://www.memphis.va.gov/MEMPHIS/features/Memphis_researchers.asp
- YouTube Hope Box videos - <https://www.youtube.com/channel/UCT01GHg08qma66gZKYdOuCQ/videos>

Technologies or techniques

- Expanded Hope Box User's Guide has been developed and shared with Department of Defense developers of Hope Box app

Inventions, patent applications, and/or licenses

- Nothing to report

Other Products

Grants

- Department of Defense Congressionally Directed Medical Research Programs (CDMRP) The REACH Intervention for Caregivers of Veterans and Service Members with TBI: Efficacy and Implementation Planning across the VA Polytrauma System of Care. University of Virginia, Paul Perrin (PI); Jennifer Martindale-Adams and Ron Seel, Site PIs; Linda Nichols, Co-Investigator. 9/1/23-8/31/27

- **REACH Hope Caregiver Notebook** – an easy-to-use resource with 28 short chapters on managing behaviors and 16 chapters on reducing stress and burden

Behavioral Chapters

An Overview of TBI and Dementia
Activities
Bathing
Combativeness
Communicating with a Person with TBI and Dementia
Confusion
Dressing
Driving
Early-Stage Dementia
Eating
Environment
Hallucinations and Delusions
Hospitalization
Incontinence
Lifting and Moving
Medications
PTSD, TBI, and Dementia
Repeated Questions

Caregiving Chapters

Addressing Problems
Adult Day Care
Asking for Help
Challenging Emotions
Communicating with Health Care Providers
Communicating with Others
Depression
Feelings
Financial and Legal Concerns
Grief
Healthy Lifestyle
Holidays
Mood Management
Navigating the System
Organizing Your Caregiving Life
Sexuality
Stress Management
Taking Care of You

Safety Concerns
Sexuality
Shadowing
Sleeping
Sundowning
Telling Your Loved One and Others
Traveling
Understanding and Managing Anger
Visiting
Wandering

- **Hope Box Users Guide** – screen shots and detailed descriptions for installation and use for Android and iPhone
- **Twelve REACH Hope YouTube videos** – that caregivers can download into their personalized Hope Box app)
link to all videos: <https://www.youtube.com/channel/UCT01GHg08qma66gZKYdOuCQ/videos>
 - Content videos
 - REACH Stretching Video – https://youtu.be/pti5Ty1_kUU
 - REACH Conflict Resolution Video – <https://youtu.be/AU9JHdAVHtc>
 - REACH Self-Esteem Video - <https://youtu.be/-1Yw-uaV82M>
 - REACH Goal Setting Video – https://youtu.be/_7gyyh3Kd-4
 - REACH Stress Management Video – <https://youtu.be/jk7OGrYuXqw>
 - REACH Mood Management Video – <https://youtu.be/IR5LIUYnPIU>
 - REACH Problem Solving Video – <https://youtu.be/4PtI0Hs6-8U>
 - REACH Guided Imagery Video – <https://youtu.be/IB5UaCXH-HQ>
 - Process videos
 - How to Download the Virtual Hope Box app
<https://www.youtube.com/watch?v=NQVcRR2L7bg&pp=sAQA>
 - How to Add REACH Signal Breath Video and Coping Card
<https://www.youtube.com/watch?v=ZhUdIYnFin4&pp=sAQA>
 - Adding REACH YouTube Videos to Virtual Hope Box
<https://www.youtube.com/watch?v=RTRxexXZwgo&pp=sAQA>
 - How to Create Coping Cards in your Virtual Hope Box
https://www.youtube.com/watch?v=zYiz4pD_p6I&pp=sAQA
- **Databases** to track study activities – recruitment, data collection, and intervention
- **Recruitment brochure**

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

VA Caregiver Center located at Lt. Col. Luke Weathers, Jr. VAMC, Memphis

Name: Linda Nichols
Project Role: PI
Researcher Identifier: LNichols1
Person month: 3.0
Contribution: Overall direction and approval, writing and editing of materials

Name: Jennifer Martindale-Adams
Project Role: Co-I
Researcher Identifier: Jmartindale
Person month: 0.6
Contribution: Writing and editing of materials

Name: Carolyn Clark
Project Role: Research specialist
Researcher Identifier: <https://orcid.org/0000-0001-5893-7646>
Person month: 6
Contribution: Development of materials for recruitment and intervention and data collection

Name: Jessica Roxy Martin
Project Role: Research specialist
Researcher Identifier: <https://orcid.org/0000-0003-1446-2583>
Person month: 3.0
Contribution: Development of materials for recruitment and intervention

University of Virginia

Name: Paul Perrin
Project Role: Co-PI
Researcher Identifier: PPERRIN
Person month: 3.0
Contribution: Overall direction and approval, writing and editing of materials

VCU

Name: Ronald Seel
Researcher Identifier: RON_SEEL
Project Role: Co-I, as of 10-Aug-2022, now VCU site PI
Person month: 1.2
Contribution: Research design

Robert Perera
Project Role: Statistician
Research Identifier: ORCID: 0000-0002-0375-0427
Person month: .36
Contribution: Statistical support

Carmen Tyler
Project Role: Program Coach (interventionist)
Research Identifier: ORCID: 0000-0001-5265-184X
Person month: 6.0
Contribution: Delivery of intervention

Chimdindu Ohayagha
Project Role: Program Coach (interventionist)
Research Identifier: <https://orcid.org/0000-0003-3325-5424>
Person month: 6.0
Contribution: Delivery of intervention

Ashley MacPherson
Project Role: Program Coach (interventionist)
Research Identifier: <https://orcid.org/0000-0001-9654-4640>
Person month: 6.0
Contribution: Delivery of intervention

Emily Donovan
Project Role: Program Coach (interventionist)
Research Identifier: <https://orcid.org/0000-0002-5246-6297>
Person month: 6.0
Contribution: Delivery of intervention

Alexandra Ulbing
Project Role: Data analyst
Research Identifier: ORCID: 0000-0002-4578-0026
Person month: 4.8
Contribution: Management of data and data bases, statistical support

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

Linda Nichols, PhD.

Active Support: The REACH Intervention for Caregivers of Veterans and Service Members With TBI: Efficacy and Implementation Planning Across the VA Polytrauma System of Care
Time Commitments: 10%
Supporting Agency: Department of Defense, CDMRP, TP220091
Performance Period: 09/01/2023 – 08/31/2027
Level of Funding:

Paul Perrin, PhD.

Active Support: The REACH Intervention for Caregivers of Veterans and Service Members With TBI: Efficacy and Implementation Planning Across the VA Polytrauma System of Care
Time Commitments: 50%
Supporting Agency: Department of Defense, CDMRP, TP220091
Performance Period: 09/01/2023 – 08/31/2027
Level of Funding:

Jennifer Martindale-Adams, EdD

Active Support: The REACH Intervention for Caregivers of Veterans and Service Members With TBI: Efficacy and Implementation Planning Across the VA Polytrauma System of Care
Time Commitments: 10%
Supporting Agency: Department of Defense, CDMRP, TP220091
Performance Period: 09/01/2023 – 08/31/2027
Level of Funding:

Ronald Seel, PhD

Active Support: Virginia Traumatic Brain Injury Model System
Time Commitments: 20%
Supporting Agency: National Institute on Disability and Rehabilitation Research
Performance Period: 09/01/2022 – 08/31/2027
Level of Funding:

Active Support: Improved Understanding of Medical And Psychological Needs (I-MAP) in Veterans and Service Members with Chronic TBI
Time Commitments: 10%
Supporting Agency: McGuire Research Institutes
Performance Period: 08/10/2022 – 08/09/2025
Level of Funding:

Active Support: The REACH Intervention for Caregivers of Veterans and Service Members With TBI: Efficacy and Implementation Planning Across the VA Polytrauma System of Care
Time Commitments: 9%
Supporting Agency: Department of Defense, CDMRP, TP220091
Performance Period: 09/01/2023 – 08/31/2027
Level of Funding:

What other organizations were involved as partners?

Organization Name: Virginia Commonwealth University (VCU)
Location of Organization: Richmond, VA
Partner's contribution to the project: VCU conducts intervention for caregivers, manages data, and will analyze all data
Financial support: Contract from Memphis to VCU
In-kind support: VCU provides all resources (space, computers, telephones) to their project staff
Facilities: VCU Departments of Psychology and Physical Medicine & Rehabilitation
Collaboration): VCU and Memphis staff share data and meet together weekly
Personnel exchanges: N/A
Other: N/A

Organization Name: University of Virginia (UVA)
Location of Organization: Charlottesville, VA

Partner's contribution to the project: Study co-PI, Paul Perrin, moved to UVA 10-Aug-2022
Financial support: Contract from Memphis to VCU
In-kind support: UVA provides all resources (space, computers, telephones) for Dr. Perrin
Facilities: UVA Departments of Psychology and Data Science
Collaboration): UVA, VCU and Memphis staff meet together weekly
Personnel exchanges: N/A
Other: N/A

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: N/A.

QUAD CHART: Quad Chart with Recruitment and Consort Diagram attached.

9. **APPENDICES:** *Attach all appendices that contain information that supplements, clarifies, or supports the text.*

- a. Table 1. REACH Hope Baseline Caregiver Demographics
- b. Table 2. REACH Hope Baseline Care Recipient Demographics
- c. Table 3. REACH Hope Baseline Caregiver Clinical Characteristics
- d. Table 4. REACH Hope Baseline Care Recipient Clinical Characteristics



PI: Linda Nichols

Org: Research Inc/VA Medical Center

Award Amount: \$1,299,885.00

Study/Product Aim(s)

- **Aim 1.** Modify/refine REACH Hope intervention and caregiver materials for caregivers of Veterans with TBI and dementia.
- **Aim 2.** Compare efficacy of REACH Hope in improving burden, depression, anxiety and caregiving self-efficacy for caregivers of Veterans with TBI and dementia to a waitlist control.
- **Aim 3.** Compare efficacy of REACH Hope in improving safety for Veterans with TBI and dementia whose caregivers have participated in REACH Hope to a waitlist control.

Approach

Randomized clinical trial of 110 caregivers of Veterans with TBI and dementia, half in each arm. Compare 6 one-hour individual sessions and use of Hope Box app, focusing on education, skills building and support over three months to wait list control. Data collected at baseline, 3, and 6 months for all, and 9 months for wait list control.



Next Quarter Goals

- Continue data collection and entry of remaining 9-month assessments
- Continue data analysis
- Begin preparation of results

Timeline and Cost

Activities CY	20	21	22	23	24
Finalize materials, obtain approval, print materials		■			
Recruit subjects		■	■	■	
Administer interventions		■	■	■	■
Collect, analyze, and process data		■	■	■	■
Disseminate findings				■	■
Estimated Budget (\$K)	\$143	\$447	\$483	\$227	

CY20 Goals

- Prepare regulatory documents
- Train study staff
- Finalize research protocol/manual of operations (MOP)

CY21 and CY22 Goals

- Screening and recruitment
- Randomization

CY23 Goals

- Intervention delivery
- Data collection – all 6-month completed
- Data analysis
- Preparation and dissemination of results

Comments/Challenges/Issues/Concerns

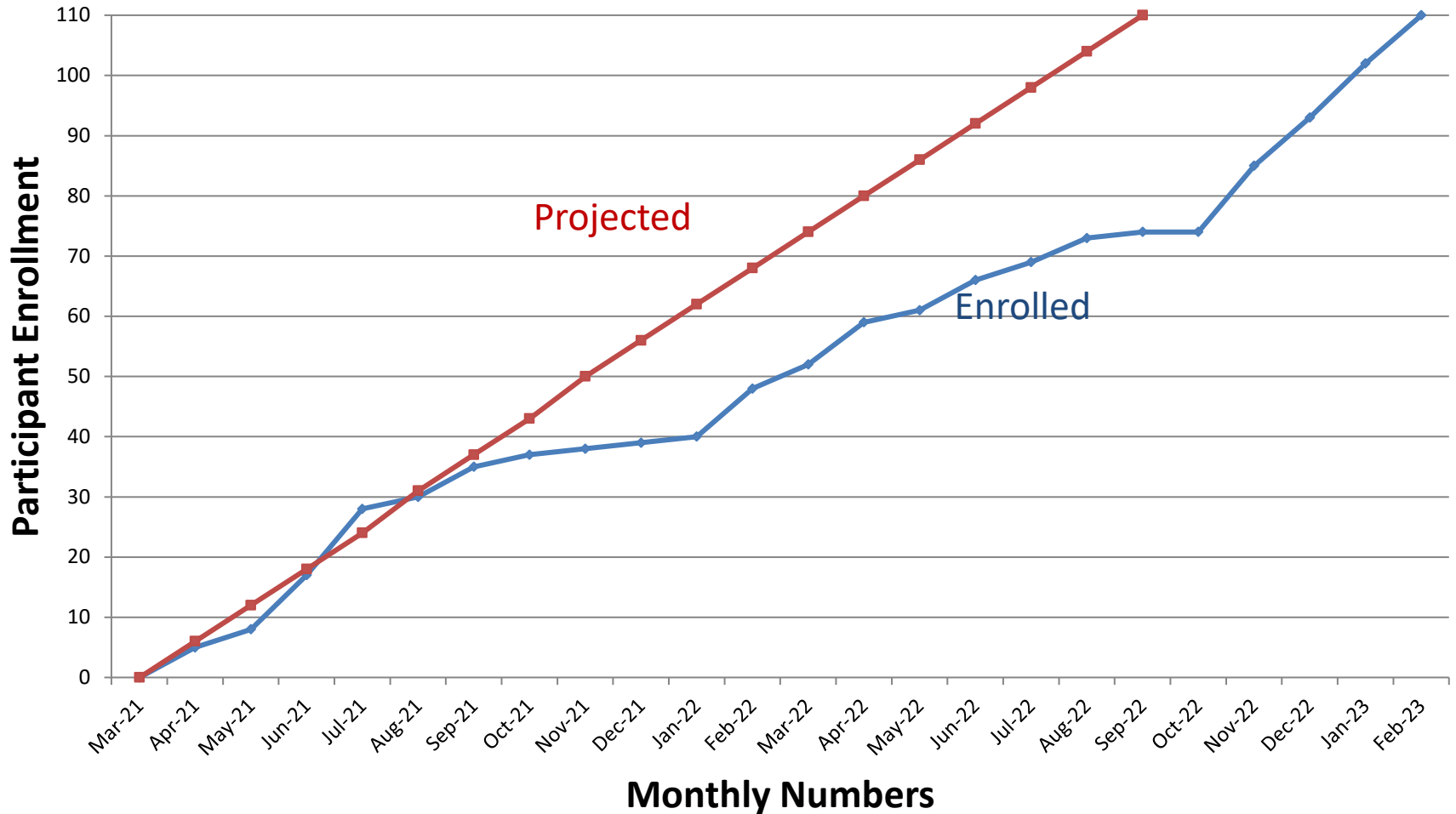
- NCE requested to complete data collection

Budget Expenditure to Date

Projected Expenditure: \$1,299,885
 Actual Expenditure: \$1,111,769.91

Recruitment

W81XWH2010756, REACH Hope



Percent of participants that complete study to 14-Aug-2023

84%

W81XWH2010756 CONSORT Diagram

15-Aug-2022 through 14-Aug-2023

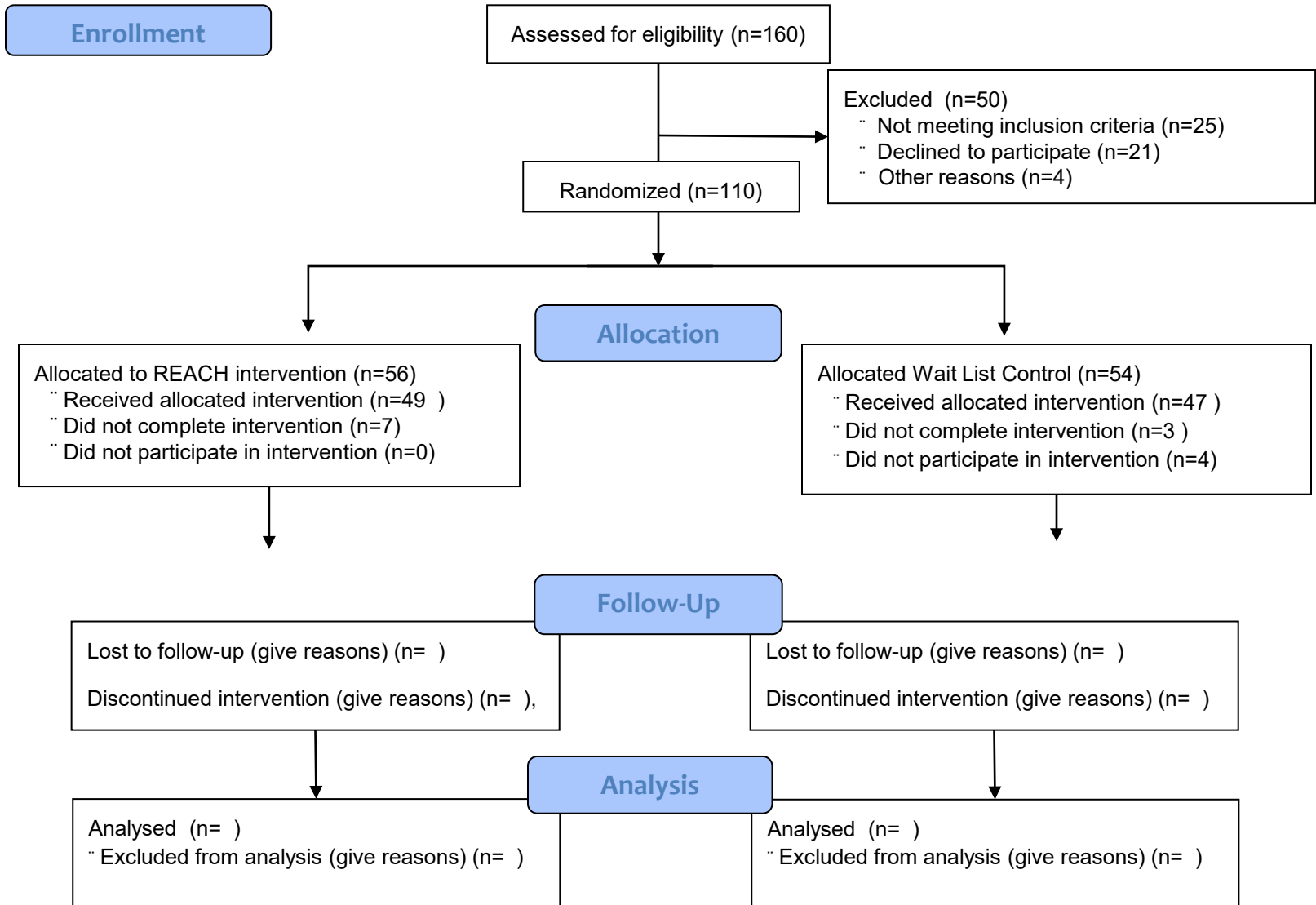


Table 1. REACH Hope Baseline Caregiver Demographics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Age, years	65.1 (10.7)	65.7 (9.65)	64.6 (11.7)
Female	102 (92.7%)	53 (94.6%)	49 (90.7%)
Hispanic	7 (6.4%)	2 (3.6%)	5 (9.3%)
Race			
American Indian/Alaskan Native	1 (0.9%)	0 (0%)	1 (1.9%)
Asian	2 (1.8%)	0 (0%)	2 (3.7%)
Black/African American	20 (18.2%)	10 (17.9%)	10 (18.5%)
Native Hawaiian/Pacific Islander	1 (0.9%)	1 (1.8%)	0 (0%)
White/Caucasian	74 (67.3%)	41 (73.2%)	33 (61.1%)
Other	1 (0.9%)	1 (1.8%)	0 (0%)
More than one race	3 (2.7%)	0 (0%)	3 (5.6%)
Education			
Junior/high school	4 (3.6%)	2 (3.6%)	2 (3.7%)
High school grad/GED	18 (16.4%)	10 (17.9%)	8 (14.8%)
Some college/associate degree	38 (34.5%)	21 (37.5%)	17 (31.5%)
Vocational/training school	7 (6.4%)	4 (7.1%)	3 (5.6%)
College grad	43 (39.1%)	19 (33.9%)	24 (44.4%)
Relationship to Care Recipient			
Wife	84 (76.4%)	43 (76.8%)	41 (75.9%)
Partner	1 (0.9%)	0 (0%)	1 (1.9%)
Mother	5 (4.5%)	3 (5.4%)	2 (3.7%)
Brother	4 (3.6%)	2 (3.6%)	2 (3.7%)
Sister	4 (3.6%)	3 (5.4%)	1 (1.9%)
Daughter	4 (3.6%)	2 (3.6%)	2 (3.7%)
Son/step-son	2 (1.8%)	1 (1.8%)	1 (1.9%)
Marital Status			
Divorced	11 (10.0%)	5 (8.9%)	6 (11.1%)
Married/Living as married	91 (82.7%)	47 (83.9%)	44 (81.5%)
Single	2 (1.8%)	2 (3.6%)	0 (0%)
Widowed	6 (5.5%)	2 (3.6%)	4 (7.4%)
Live with Care Recipient	104 (94.5%)	54 (96.4%)	50 (92.6%)
Employment Status			
Not currently employed			

Table 1. REACH Hope Baseline Caregiver Demographics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Disabled	8 (7.3%)	4 (7.1%)	4 (7.4%)
Non-paid employment, Homemaker	5 (4.5%)	2 (3.6%)	3 (5.6%)
Not employed	7 (6.4%)	2 (3.6%)	5 (9.3%)
Retired	65 (59.1%)	36 (64.3%)	29 (53.7%)
Paid employment			
Full-time	13 (11.8%)	7 (12.5%)	6 (11.1%)
Part-time	11 (10.0%)	4 (7.1%)	7 (13.0%)
Gross Monthly Income, \$	6660 (7990)	5240 (2110)	7960 (10800)
Hard to pay for basics			
Not at all difficult	60 (54.5%)	28 (50.0%)	32 (59.3%)
Not very difficult	26 (23.6%)	16 (28.6%)	10 (18.5%)
Somewhat difficult	23 (20.9%)	12 (21.4%)	11 (20.4%)
Very difficult	1 (0.9%)	0 (0%)	1 (1.9%)
Financial Strain			
Income % spent on caregiving	9.53% (16.6)	10.3% (18.3)	8.84% (15.0)
Financial strain providing care?			
1-Not a strain at all	43 (39.1%)	23 (41.1%)	20 (37.0%)
2	13 (11.8%)	6 (10.7%)	7 (13.0%)
3	34 (30.9%)	14 (25.0%)	20 (37.0%)
4	9 (8.2%)	6 (10.7%)	3 (5.6%)
5-Very much a strain	11 (10.0%)	7 (12.5%)	4 (7.4%)
Out of pocket/month for care,	479 (885)	442 (961)	518 (808)
Have you had to:			
Dip into personal savings	62 (56.4%)	34 (60.7%)	28 (51.9%)
Dip into retirement account	27 (24.5%)	17 (30.4%)	10 (18.5%)
Reduce retirement funds	45 (40.9%)	26 (46.4%)	19 (35.2%)
Take out loan, borrow from friend or family	24 (21.8%)	11 (19.6%)	13 (24.1%)
Cut back on personal spending	66 (60.0%)	34 (60.7%)	32 (59.3%)
Cut back on your healthcare spending	25 (22.7%)	11 (19.6%)	14 (25.9%)
Condition that makes caregiving difficult	36 (32.7%)	22 (39.3%)	14 (25.9%)

Table 1. REACH Hope Baseline Caregiver Demographics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Time providing care, years	14.1 (13.1)	13.6 (12.7)	14.7 (13.6)
Began care			
As soon as CR returned injured	24 (21.8%)	14 (25.0%)	10 (18.5%)
CR no longer care for self	62 (56.4%)	31 (55.4%)	31 (57.4%)
Previous CG no longer care for CR	13 (11.8%)	6 (10.7%)	7 (13.0%)
Other	11 (10.0%)	5 (8.9%)	6 (11.1%)

Table 2. REACH Hope Baseline Care Recipient Demographics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Age, years	69.1 (11.4)	69.1 (10.8)	69.2 (12.0)
Male	105 (95.5%)	54 (96.4%)	51 (94.4%)
Hispanic	5 (4.5%)	3 (5.4%)	2 (3.7%)
Race			
Asian	1 (0.9%)	0 (0%)	1 (1.9%)
Black/African American	21 (19.1%)	12 (21.4%)	9 (16.7%)
Native Hawaiian/Pacific Islander	1 (0.9%)	1 (1.8%)	0 (0%)
White/Caucasian	84 (76.4%)	41 (73.2%)	43 (79.6%)
Other	1 (0.9%)	0 (0%)	1 (1.9%)
More than one race	1 (0.9%)	1 (1.8%)	0 (0%)
Marital Status			
Divorced	14 (12.7%)	6 (10.7%)	8 (14.8%)
Married/Living as married	85 (77.3%)	43 (76.8%)	42 (77.8%)
Single	7 (6.4%)	5 (8.9%)	2 (3.7%)
Widowed	4 (3.6%)	2 (3.6%)	2 (3.7%)
Education			
Junior/high school	3 (2.7%)	2 (3.6%)	1 (1.9%)
High school grad/GED	30 (27.3%)	18 (32.1%)	12 (22.2%)
Some college/associate degree	46 (41.8%)	23 (41.1%)	23 (42.6%)
Vocational/training school	7 (6.4%)	4 (7.1%)	3 (5.6%)
College grad	13 (11.8%)	6 (10.7%)	7 (13.0%)
Employment Status			
Not currently employed			
Disabled	56 (50.9%)	31 (55.4%)	25 (46.3%)
Not employed	1 (0.9%)	0 (0%)	1 (1.9%)
Retired	47 (42.7%)	22 (39.3%)	25 (46.3%)
Paid employment			
Full-time	4 (3.6%)	2 (3.6%)	2 (3.7%)
Part-time	2 (1.8%)	1 (1.8%)	1 (1.9%)
Service Branch			
Air Force	15 (13.6%)	6 (10.7%)	9 (16.7%)
Army	58 (52.7%)	28 (50.0%)	30 (55.6%)
Marines	22 (20.0%)	12 (21.4%)	10 (18.5%)
Navy	13 (11.8%)	9 (16.1%)	4 (7.4%)

Table 2. REACH Hope Baseline Care Recipient Demographics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Coast Guard	1 (0.9%)	0 (0%)	1 (1.9%)
Years of service	7.78 (8.76)	8.32 (8.47)	7.21 (9.10)
Medically discharged	32 (29.1%)	14 (25.0%)	18 (33.3%)

Table 3. REACH Hope Baseline Caregiver Clinical Characteristics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Depression, PHQ-9 (0-27)	6.72 (4.69)	7.18 (4.74)	6.24 (4.63)
Anxiety, GAD-7 (0-21)	7.65 (5.18)	7.75 (5.41)	7.56 (4.97)
Burden, ZBI (0-48)	21.7 (7.40)	21.8 (6.81)	21.7 (8.03)
Self-Efficacy (0-100)	66.29 (18.66)	67.68 (17.03)	64.82 (20.31)
Self-Efficacy for Obtaining Respite (0-100)	47.5 (29.9)	45.3 (31.5)	49.8 (28.4)
Self-Efficacy for Responding to Behaviors (0-100)	77.0 (23.1)	81.0 (19.7)	72.8 (25.7)
Self-efficacy for Controlling Upsetting Thoughts (0-100)	73.2 (21.6)	76.5 (19.2)	69.9 (23.5)
Number of Health Conditions (0-25)	4.78 (2.98)	4.95 (3.00)	4.61 (2.97)
Health and Health Services Use			
Compared with 12 months ago, health is...			
Better	13 (11.8%)	8 (14.3%)	5 (9.3%)
Same	67 (60.9%)	29 (51.8%)	38 (70.4%)
Worse	29 (26.4%)	18 (32.1%)	11 (20.4%)
During past three months, have you			
Seen mental health professional	22 (20.0%)	12 (21.4%)	10 (18.5%)
Seen MD, NP, or PA	81 (73.6%)	38 (67.9%)	43 (79.6%)
During past three months, how many times			
Been to ER for your health	0.118 (0.324)	0.143 (0.353)	0.0926 (0.293)
Been admitted to the hospital?	0.0273 (0.164)	0.0179 (0.134)	0.0370 (0.191)
Number days in hospital	4.67 (1.53)	3.00 (NA)	5.50 (0.707)
Months since seen healthcare professional about your health, median [quartiles]	1.00 [1.00, 4.00]	1.50 [1.00, 6.00]	1.00 [1.00, 2.75]
In past 30 days, days unable to carry out usual activities or work because of any health condition	0.682 (1.78)	0.696 (1.66)	0.667 (1.90)
In past 30 days, days cut back or reduce activities or work because of health condition	2.82 (6.18)	3.50 (6.85)	2.11 (5.38)
Family Needs, FNQ (1-3)	1.78 (0.448)	1.81 (0.428)	1.75 (0.470)

Table 3. REACH Hope Baseline Caregiver Clinical Characteristics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Health Info Score (1-3)	1.49 (0.508)	1.51 (0.487)	1.47 (0.533)
Emotional Support Score (1-3)	2.22 (0.537)	2.27 (0.478)	2.17 (0.593)
Instrumental Support Score (1-3)	2.12 (0.605)	2.16 (0.558)	2.09 (0.654)
Professional Support Score (1-3)	2.02 (0.707)	2.07 (0.667)	1.97 (0.750)
Community Support Network (1-3)	1.43 (0.539)	1.39 (0.558)	1.48 (0.520)
Involvement with Care Score (1-3)	1.40 (0.646)	1.47 (0.638)	1.33 (0.652)
Felt like screaming, yelling at CR			
Often	37 (33.6%)	20 (35.7%)	17 (31.5%)
Sometimes	61 (55.5%)	31 (55.4%)	30 (55.6%)
Never	12 (10.9%)	5 (8.9%)	7 (13.0%)
Had to keep from hitting CR			
Often	1 (0.9%)	1 (1.8%)	0 (0%)
Sometimes	9 (8.2%)	4 (7.1%)	5 (9.3%)
Never	100 (90.9%)	51 (91.1%)	49 (90.7%)
Stress level, (1-10)	5.79 (2.15)	5.46 (2.02)	6.13 (2.24)
Time on duty, hours	20.2 (5.75)	20.1 (5.84)	20.4 (5.70)

Table 4. REACH Hope Baseline Care Recipient Clinical Characteristics (W81XWH2010756)

	Overall N=110 (100%) Mean (SD) / n (%)	REACH N=56 (50.9%) Mean (SD) / n (%)	Waitlist N=54 (40.1%) Mean (SD) / n (%)
Total Safety (0-8)	1.82 (1.31)	1.79 (1.33)	1.85 (1.31)
Total ADL (0-6)	2.87 (2.09)	2.98 (2.17)	2.76 (2.02)
Total IADL (0-6)	7.06 (1.28)	7.29 (1.02)	6.83 (1.48)
Total Number Health Conditions (0-25)	8.15 (3.86)	8.23 (4.34)	8.06 (3.33)
Health and Health Services Use			
During past 3 months, times in ER	0.773 (2.00)	1.05 (2.60)	0.481 (1.00)
During past 3 months, times in hospital	0.294 (1.10)	0.418 (1.44)	0.167 (0.575)
Days in hospital	7.12 (10.7)	6.25 (10.9)	9.20 (11.0)