

Annual Report for Eastern Colorado GRECC, 2020

Brief History of the Eastern Colorado GRECC:

The Eastern Colorado Geriatric Research, Education and Clinical Center (GRECC) was established October 2014, and funding started February 2015. Located under VISN 19, it is the first new GRECC in 17 years. The primary foci of the center includes gender-related healthcare outcomes in older Veterans (focus on women’s health) and treatment and complications of obesity in older Veterans. Secondary themes include intensive rehabilitation programs; palliative care; advance care planning (groups); dissemination and implementation science.

GRECC Leadership (including the date started in role):

Director	Robert Schwartz , MD	10/1/2014
Associate Director for Research	Wendy Kohrt , PhD	10/1/2014
Associate Director for Education and Evaluation	Kathryn Nearing , PhD	8/19/2018
Associate Director for Clinical	Lauren Abbate, MD	7/1/2019
Administrative Officer	Colleen Costello, BA/BS	4/1/2018

GRECC by the Numbers:

Accomplishments of GRECC Staff During the FY:

Aging-Related Educational Presentations	62
Career Development Awardees Who Were Mentored	34
Study Sections	13
Editorial Boards	3
Manuscripts Reviewed	109
Publications (articles, books, chapters)	144
Peer-Reviewed Journal Publications	144
Number of Funded Projects	31
Funds for All Funded Projects in FY	\$12,440,893
Funds for Qualified Research in FY (subject to VERA)	\$2,010,414
Funds for Clinical Demonstration Projects	\$198,810
Funds for Education and Training Projects	\$1,157,245

Training Opportunities in GRECC During the FY:

Number of Affiliated Health Trainees Slots	14
Number of Medical Trainees Rotating in GRECC Clinics	4

Vacancies:

Number of Vacancies	2
Total FTE of Vacancies	1.5

CORE ISSUES:

Challenges with space or facilities:

The tremendous success of our GeroFit program led to shortage of exercise space sooner than expected. We have submitted plans to expand the exercise space into an adjacent empty laboratory in Building P. This proposal is presently on the list of proposed facility renovations.

Any problems recruiting high-quality researchers and clinicians:

There have not been enough new slots available to support a growing geriatrics program, a newly planned CLC and a reformulation of the GEC.

Challenges with adequate space or resources to conduct research:

Prior to July 29, 2019, the GRECC did not have any office or clinical research space at the RMR VAMC (or at the old facility prior to the move). Because the VA is an affiliate member of the university-based Colorado Clinical and Translational Sciences Institute (CCTSI), all resources supported by the CCTSI can be utilized by VA investigators. These resources include inpatient and outpatient research centers and core laboratories. Therefore, most GRECC research prior to July 2019 has been conducted in CCTSI facilities at the university. On July 29, 2019, the GRECC and COIN moved into renovated space in Building P, which is a VA-leased building adjacent to the VA campus. New projects utilize VA space, as appropriate. The GRECC research space in Building P includes wet bench space for sample processing, three exam rooms, an exercise training facility, a body composition lab, and limited physiological testing space. Because the RMR VAMC has very limited clinical research space (one exam room dedicated to research), the hope is that GRECC research facilities will be operated as a shared resource that other clinical VA investigators can utilize. Resources needed to manage the facility in this manner (e.g., clinic manager, scheduling mechanism) are not yet in place. Two additional barriers will limit the usability of the GRECC research space until they can be resolved: 1) Investigational products managed by the VA pharmacy apparently cannot be stored in Building P. 2) There is no mechanism in place for transporting biospecimens collected in Building P to the hospital lab or bench labs, which is a problem for assays that require fresh samples.

Because Building P is close to yet separate from the Rocky Mountain Regional VAMC, it has been and will likely continue to be used for COVID-19-related activities. For example, trailers to support COVID-19 vaccine trials

were installed in the Building P parking lot and the loading docks in Building P are used as base sites for drive-through COVID-19 testing. These activities have limited non-COVID-19 clinical and research activities in Building P.

Vacancies:

<p><u>Type of Vacancy:</u> Other staff (non-investigator)</p> <p><u>FTE of Vacancy:</u> 0.5 <u>Start Date:</u> 10/1/2019</p> <p>Description of the Vacancy: Requesting approval for data analyst</p> <p><u>Efforts to Fill the Vacancy:</u> 4Cast request for FY21 denied; negotiations with ELT continue</p>
<p><u>Type of Vacancy:</u> Other staff (non-investigator)</p> <p><u>FTE of Vacancy:</u> 1 <u>Start Date:</u> 10/1/2019</p> <p>Description of the Vacancy: Requesting approval for Program Specialist</p> <p><u>Efforts to Fill the Vacancy:</u> 4Cast request for FY21 denied. Negotiations with ELT continue</p>

KEY GRECC CONTRIBUTIONS:

Key GRECC Contributions to Medical Center Programs during FY:

Clinical Product

The VA has been involved with our Elder Abuse demonstration program that was recently awarded \$850,000 from the State of Colorado.

Clinical Product

Our Advanced Geriatric Research Fellow, Dr. Teresa Jones, developed the Aging Veteran Surgery Wellness program. The goal of this program is to identify vulnerabilities in this population before surgery and improve surgical outcomes. Veterans receive a comprehensive pre-operative assessment and post-operative care from an interprofessional team with the goal of reducing postoperative morbidity from surgery. Through this initiative, RMRVAMC was the first VA to be designated as a Level 1 Geriatric Surgery Center of Excellence.

Clinical Product

Geriatric Emergency Department is a new initiative in FY20. Led by Dr. Abbate, the goal of the RMRVAMC Geriatric Emergency Department Initiative is to identify and manage geriatric syndromes among older Veterans presenting to the ED and facilitate transitions of care to outpatient VA services. We are adapting the Geriatric Emergency Room Innovations for Veterans (GERI-VET) program which was developed at the Cleveland VA. Veterans aged 65 years and older are screened at triage using the Identification of Seniors at Risk (ISAR). Veterans who screen positive on the ISAR (score of 3+) or whom the ED provider feels would benefit from further geriatric screening are referred to the GERI-VET program. The goal of GERI-VET is to assess and screen for unrecognized geriatric syndromes including delirium, dementia, functional status, fall risk, elder abuse, and caregiver burden. Patients who screen positive on any of the assessments are then referred to appropriate services and supports. Follow-up phone calls are made to patients within 72 hours of ED discharge to by intermediate care technicians (ICTs) to ensure continuity of care. Applied for Level 1 Geriatric ED Accreditation through the American College of Emergency Physicians.

Clinical Product

Gerofit transitioned to 100% remote exercise delivery during the COVID-19 pandemic. Using VVC, Gerofit increased Veteran access and expanded the program. The program continues to collaborate with the national coordinating center in Durham and work with Office of Connected Care to improve the Veteran experience. We completed a local program evaluation to identify barriers and facilitators related to participation in Gerofit as well as independent home exercise.

Educational Product

Virtual Dementia Tour (offered through partnership with local Geriatric Workforce Enhancement Program): National certified trainer and ADEE (Nearing) provided this experience to associated health trainees and nurse residents. For the nurse residents, we coupled the virtual tour experience with a presentation on dementia offered by Joleen Sussman, geropsychologist. Funding support provided by VISN 19 made it possible to purchase 20 virtual dementia tour kits, which we will continue to use to bring this experience to successive cohorts of learners.

Educational Series

Telehealth Training Activities: In FY20, we continued to integrate Associated Health Trainees and Geriatric Medicine Fellows into tele-geriatric, tele-palliative care and tele-dementia clinics for older Veterans. CVT to CBOCs and contract nursing facilities, as well as VVC to Veterans' homes extended access to geriatric specialty care. As a VIRTUAL Geriatrics hub, Eastern Colorado is considered a "high volume" site. Eastern Colorado also stands out nationally among GRECC Connect hubs in offering tele-palliative care and VVC for dementia care and caregiver support. These clinical innovations offer unique training opportunities.

Educational Series

Ethics Seminar Series: This every-other-month (5-part) interprofessional series 1) hones skills in recognizing clinical ethical dilemmas, 2) increases awareness of resources when an ethical dilemma arises in the course of patient care, and 3) enhances the ability to engage in interprofessional, patient-centered decision-making processes to reach a solution that honors diverse stakeholders' values. We begin the series each year with a presentation on ageism called Changing the Narrative, which is delivered by a national trainer (Janine Vanderburg). This presentation and ensuing discussion set the stage for the rest of the series by surfacing implicit and explicit biases that can influence clinical decision-making and hinder patient-directed care. We learn about and practice applying two ethical decision-making frameworks: the 8-step approach to ethical decision-making developed by the Center for Bioethics, University of Colorado Anschutz Medical Campus, and the VA's CASES approach. We use clinical ethics cases to apply each model as a systematic approach to exploring and considering different values and disciplinary perspectives in relation to each case. The series concludes with a variety of special topic seminars, including one on elder abuse.

Educational Series

Interprofessional Case Conference Series: A monthly Interprofessional Case Conference Series provides an opportunity for all Eastern Colorado GRECC Associated Health Trainees (n= 14) and Geriatric Medicine Fellows (n= 4) to practice the art and science of collaboratively developing care plans that integrate the expertise of multiple disciplines. During each case conference, each trainee receives discipline-specific information from a real case, but that would be most applicable/available to a discipline other than their own. (For example, an audiology extern might receive information on the class of medications a patient is receiving.) Consequently, trainees must practice asking open-ended questions to solicit the knowledge/information held by other team members to inform care decisions. FY20 Refinements: providing more background knowledge about other disciplines prior to first case conference through Associated Health Training program orientation and shadowing opportunities; modeling by preceptors at first case conference; and, using the interprofessional adaptation of the 5Ms (adopted from the New England GRECC with permission) to reinforce the salience of different disciplinary perspectives in caring for older adults.

Other Activity

Older Veteran Engagement Team (OVET) is a group comprised of eight Veterans (six men and two women who served) and one caregiver who range in age from 62 to 92 and collectively represent nearly every branch of the military. The OVET was formed in November 2017 and meets monthly (now virtually) for two hours. OVET has provided feedback on a range of topics, including: hearing health for Veterans; hospice decision aid; advance care planning website; Safety in Dementia website, which addresses safety concerns related to firearms and driving; walking rehabilitation for lower-limb amputees (Advanced Geriatric Research Fellow project); Home Share and Medical Foster Home programs; and, a new transportation resource hub, which is being developed by the Area Agency on Aging and piloted with Veterans. Importantly, OVET is a resource that supports the translation of research findings into clinical practice through, for example, clinical demonstration projects. As a standard practice of the Eastern Colorado GRECC, OVET members provide their perspectives regarding the implications of research findings for clinical services and how to best implement these services to support older Veterans and caregivers. Details regarding this group's contributions to specific clinical demonstration projects, including one slated for national dissemination, are provided in the Clinical Innovations section of this report. OVET is a resource supporting all three parts of our mission: education, research and clinical innovation.

Key GRECC Contributions to VISN during FY:

Clinical Product

GRECC Connect: The goal of GRECC Connect is to improve access to geriatric care for Veterans in rural areas. Older Veterans living in rural areas often have limited access to geriatric care and rural providers and staff often lack opportunities to learn about best practices for management of Veterans with geriatrics syndromes. The Eastern Colorado GRECC links geriatrics specialists (geriatricians, geropsychologist, social workers, pharmacists, audiologists and interprofessional trainees), located at Rocky Mountain Regional VAMC with outlying community-based outreach clinics (CBOCs) and Veterans in their homes. Activities:

Current modalities include clinical video telehealth to CBOCs, telephone visits, and VA Video Connect visits, and educational teleconferences. Consultation is provided in tele-geriatrics and tele-geropsychology. All visits are transdisciplinary with at least physician, social worker, and pharmacist input. Many veterans and caregivers are also seen by the geropsychologist, especially related to dementia and caregiver support needs. Through this project, we aim to equip rural providers and staff with knowledge and skills to care for older adults, support staff at rural clinics by providing geriatrics and geropsychology consultation, and raise awareness of needs and services for older rural veterans through outreach.

In FY20, we continued to offer telehealth interprofessional training to geriatric medicine fellows, pharmacist trainees, and a psychology intern. In FY20, the GRECC Connect program conducted the following visits, recognizing the COVID-19 pandemic started in mid-March 2020.

Total FY20 Geriatrics visits (CBOC/VVC/Phone): 159

Total FY20 Geropsych visits (CBOC/VVC/Phone): 101

Total visits: 260; Total Miles saved: 51,813

Educational Product

Other Activity

Rural Veteran Engagement: GRECC, COIN and MIRECC are restarting efforts to establish a joint Rural Veteran (and caregiver) Engagement Team in southeast Colorado as a pilot. We will learn from this first effort and then expand to establish additional rural Veteran engagement teams, including one focused on rural women Veterans. To plan for the resources required to expand current Veteran engagement efforts to include rural Veterans, Nearing developed and administered a survey to GRECC and COIN investigators. Collectively, respondents (n= 17) indicated that they have 10 funded research or clinical innovation projects on which they wish to obtain feedback and input from rural Veterans. The number of such projects is expected to grow to 16 in the next year. Further highlighting the need to establish a mechanism for rural Veteran engagement, 71% of respondents indicated that they currently have no access to the perspectives of diverse rural Veterans.

Key GRECC Contributions to National Programs during FY:

Educational Product

Geriatric Scholars Physical Function Workshop: The purpose of the Geriatric Scholars Physical Function workshop is to provide advanced training in functional assessment and intervention to rehabilitation professionals, namely Occupational Therapists and Physical Therapists, who wish to gain more expertise in geriatrics. The training is also appropriate for primary care clinicians who wish to extend their knowledge of functional disability and recovery in older populations. The training emphasizes more progressive intervention strategies to address the widespread tendency to provide low dose rehabilitation interventions. The content provides an overview of the research behind techniques to improve function more efficiently to ensure clinicians can carry this information over into individual treatment programs for Veterans. The workshop also identifies barriers to treatment and how to work around those obstacles. In FY20, we created a virtual learning platform to extend access to the training content. The VA simulation center, with extensive experience evaluating simulation learning, will oversee evaluation of the virtual training pilot planned for FY21.

Educational Product

Rapid assessment of and response to trainee telehealth training needs: In March 2020, Dr. Nearing, in collaboration with the New England GRECC, developed a rapid assessment of telehealth training needs to inform the development of a nuts-and-bolts guide for doing telehealth visits from a trainee's home to a Veteran's home. Within a week of the rapid assessment, this resource was disseminated to Associate Directors for Education throughout the GRECC network to share with trainees. In addition, Dr. Hillary Lum, GRECC Connect site PI, led the organization of a national webinar featuring an interdisciplinary team of geriatric specialists with extensive video-to-home experience. The webinar reached 760 participants nationally. The recorded webinar is available through the national GRECC Connect website. The associated paper, "National Geriatric Network Rapidly Addresses Trainee Telehealth Needs in Response to COVID-19" was published in July in the Journal of the American Geriatrics Society.

Educational Series

Geriatric and Palliative Care SCAN ECHO Series: The purpose of the Eastern Colorado GRECC Geriatric and Palliative Care SCAN ECHO Series is to increase clinical knowledge related to palliative care and geriatrics among rural interdisciplinary VA healthcare team members. Rural primary care teams have limited access to palliative care and geriatric consultation and, thus, benefit from practical, case-based, interactive discussions that enhance their ability to care for frail older adults and their family caregivers. In FY 19, we resumed this popular series after a hiatus the year before due to the move to the new hospital facility; we introduced new topics that reflected Eastern Colorado GRECC clinical innovation and the diverse expertise of our clinical partners. The monthly webinar series, which continued into FY20, included the following geriatric-specific topics: Dementia and Firearms: Clinical and Legal Considerations; Dementia and Caregiver Support; Hearing loss or Dementia – How Hearing Impacts Patient Outcomes; A Focus on Function: The Next Frontier in Reducing Avoidable Hospitalizations; Polypharmacy and Deprescribing; and, Dysphagia Myth Busters: Clarification on Common Swallowing Misperceptions. We also featured the following palliative care topics: Animal-Assisted Therapy and Palliative Care; Resources for Palliative Care and End-of-Life Needs; Caring for Patients Who Use Marijuana at the End of Life: Legal and Medical Implications for VA Clinicians; and PTSD and Trauma-Informed End-of-Life Care. An average of 40 participants from across the country took part in each session. We received EES approval for the monthly series, which allowed us to secure recordings of sessions and create a library of resources available through TMS and our expanded Eastern Colorado GRECC website (<https://www.denver.va.gov/grecc>). Accreditations offered: ACCME, ACCME-NP, ANCC, ACPE, APA, ASWB.

Evaluation

National Veteran Community Partnership Expansion Workgroup to plan, implement, and evaluate VCP expansion to every medical center by 2024 using a VISN-wide train-the-trainer approach (part of Geriatrics and Extended Care's FY2020-2024 Strategic Plan). Dr. Nearing, together with Sherri Deloof and Brett Hicken (Office of Rural Health), are developing the core metrics and evaluation outcomes to align national VCP expansion with four designated "lanes" of GEC's strategic plan. In addition to the outcome or "summative" evaluation, the evaluation core is developing a dissemination and implementation-oriented evaluation focused on the capacity necessary to stand up and sustain new VCPs at the VISN level.

Evaluation

Characterizing the depth and breadth of GRECC interprofessional training in geriatrics/gerontology: Dr. Nearing, in collaboration with the Office of Academic Affiliations and ADEEs from Birmingham and Tennessee Valley GRECCs, completed an analysis of national survey data from all Associated Health Training programs. Results were featured in a poster presented at the 2019 GEC Leads Conference. An associated abstract was accepted for presentation at the 2020 Gerontological Society of America virtual meeting. An associated manuscript is being prepared for submission to the Gerontology and Geriatrics Education, the official journal of the Academy of Gerontology in Higher Education (AGHE).

Evaluation

National Cross-Site Evaluation of GRECC Connect : In FY 20, Nearing, in collaboration with the New England GRECC, led a national cross-site evaluation of GRECC Connect using the RE-AIM framework. Also in FY20, the national evaluation team expanded the evaluation to include key informant interviews with 50 CBOC staff across the country to explore needs and gaps in care for rural, older Veterans and ways GRECC Connect can partner with CBOCs to address these needs. Using key insights from the evaluation, Dr. Nearing led efforts to rebrand GRECC Connect as VIRTUAL Geriatrics and create an infographic to promote uptake (i.e., dissemination and implementation) of VIRTUAL Geriatrics services among CBOCs serving rural, older Veterans. Eastern Colorado GRECC is part of a national VIRTUAL Geriatrics symposium accepted for presentation at the virtual 2020 Gerontological Society of America annual meeting.

Other Activity

Growing Rural Outreach through Veteran Engagement (GROVE) Center has been approved for funding by the Veterans Rural Health Resource Center, VA Office of Rural Health. Total Year One Budget: \$265,981. Dr. Nearing contributed to the proposal and will support the development of this new national resource center. The GROVE will work towards developing the necessary capacity and resources for VA researchers to be more inclusive of geographically diverse populations and serve as a Veteran Engagement resource center for active projects in the ORH portfolio interested in including Veteran Engagement in their methods. To accomplish this goal, in FY21 we will 1) implement pilot projects, 2) provide methodological expertise to ORH and HSR&D funded projects that seek to incorporate participatory processes in their design, and 3) establish virtual methods for engagement. Sites include Eastern Colorado Health Care System (GRECC, COIN and MIRECC), VA Connecticut Health Care System, Iowa City VA Health Care System, Southeast Louisiana Veterans Health Care System, and Milwaukee VA Medical Center.

GRECC ADMINISTRATION:

Affiliated academic geriatric medicine program(s):

University of Colorado School of Medicine

Affiliated nursing/associated health program(s):

Key collaborations with VAMCs, VISN, CoEs, ORD, EES, or non-VA entities:

GRECC Connect (enterprise-wide initiative funded by ORH)

Establishment of national GROVE Center for virtual Veteran Engagement (ORH funded)

Gerofit (national collaboration in adapting to virtual program model following COVID)

Key collaboration(s) with other GRECCs:

COVID 19 Cares Act MOV-ing FREE-ly (Ann Arbor, Nashville, Birmingham) and Virtual Geri-TEC (Bronx, Madison, Miami, New England, Puget Sound, Pittsburgh)

Collaboration with Birmingham/Atlanta GRECC and Tennessee Valley GRECC, as well as OAA, to characterize the depth and breadth of GRECC interprofessional training in geriatrics/gerontology

MOU agreements:

Date of MOU with VISN: 10/31/2019

Date of MOU with facility: 2/4/2014

GRECC Participation with GEC programs:

Dr. Nearing attended the GEC Leads Conference in 2019 and remains in correspondence with Connie Volk, VISN GEC Lead, to help ensure Eastern Colorado GRECC efforts are aligned with VISN GEC priorities. Dr. Nearing is also in regular communication with Mary Lynn Ayers, VISN lead for primary care, and consulted with Dr. Ayers in planning the Mobile Health Clinic (a GRECC CARES Act proposal). The Eastern Colorado GRECC leadership team provides regular updates to GEC leads at the medical center and VISN through meetings, the MOU and other formal reporting mechanisms. Dr. Nearing is part of the national workgroup supporting VCP expansion to achieve 4 of 6 "lanes" of the national GEC strategic plan.

Challenges with space or facilities:

The tremendous success of our GeroFit program led to shortage of exercise space sooner than expected. We have submitted plans to expand the exercise space into an adjacent empty laboratory in Building P. This proposal is presently on the list of proposed facility renovations.

Any problems recruiting high-quality researchers and clinicians:

There have not been enough new slots available to support a growing geriatrics program, a newly planned CLC and a reformulation of the GEC.

RESEARCH:

Key areas of focus:

- Treatment and consequences of obesity in older Veterans
- Gender differences in the health of Veterans
- Intensive approaches to rehabilitation to improve function in older Veterans

Interdisciplinary research teams:

Since 2014, when the Eastern Colorado GRECC was launched, several interdisciplinary research teams have developed:

- Jennifer Stevens-Lapsley, PT PhD, and Cory Christiansen, PT PhD, have assembled an outstanding research team that includes physical therapists, geriatricians, engineers, physiologists, health services scientists, and dissemination experts to advance research on improving physical function in older Veterans with complex medical issues. Their work includes several focus areas: 1) rehabilitation clinical trials that utilize intensive interventions for medically complex patients; 2) health services research that seeks to improve health care utilization and quality through rehabilitation; 3) personalized rehabilitation focused on prediction analytics to inform shared decision-making; 4) investigation of movement dysfunction in special populations (e.g., lower limb amputees, joint replacement); 5) use of wearable technologies to provide rehabilitation biofeedback, 6) technology-enabled biobehavioral training to improve exercise adherence, 7) telerehabilitation for high fall-risk populations, and 8) workforce training for rehabilitation professionals including simulation labs and self-paced, interactive, educational platforms.
- Lauren Abbate, MDPhD, is the medical director of the Eastern Colorado GRECC Gerofit program. She has assembled a multidisciplinary research team to develop novel approaches for expanding the Gerofit program to hard-to-reach Veterans, including those in rural areas. She is working with exercise physiologists with expertise in program development and faculty members in the COIN who have extensive experience with tele-technology to develop a Peleton-like program whereby Veterans in remote locations can engage in exercise sessions with other Veterans through live-stream interactions.
- Daniel Matlock, MD, Russell Glasgow, PhD, and Hilary Lum, MD, are the leaders of the Eastern Colorado GRECC Dissemination and Implementation Science team. They have close collaborations with faculty in the COIN and with the university-based ACCORDS program (Adult and Child Consortium for Health Outcomes Research and Delivery Service). Current research focus areas include 1) shared decision-making, communication, and advance care planning in healthcare; 2) complex multi-level medical system interventions; 3) patient- and system-level pragmatic interventions in older Veterans; and 4) use of dissemination and implementation models for planning, adaptation, evaluation, and sustainability.
- Dwight Klemm, PhD, is an adipocyte biologist who discovered a novel adipocyte that arises from a bone marrow-derived hematopoietic progenitor, rather than from an adipose tissue-resident mesenchymal progenitor. When compared with conventional adipocytes, bone marrow-derived adipocytes are highly inflammatory and tend to accumulate primarily in visceral fat depots. He has teamed up with Kathleen Gavin, PhD, a clinical integrative physiologist, to advance translational research on the relevance of his findings in mice to humans.
- Wendy Kohrt, PhD, is the Director of a university-based NIH U54 Specialized Center of Research Excellence (SCORE) in Sex Differences. Several GRECC investigators are members of the SCORE. Pilot funding (~\$100,000 annually) and training opportunities supported by the SCORE are extended to VA investigators.

Challenges with adequate space or resources to conduct research:

Prior to July 29, 2019, the GRECC did not have any office or clinical research space at the RMR VAMC (or at the old facility prior to the move). Because the VA is an affiliate member of the university-based Colorado Clinical and Translational Sciences Institute (CCTSI), all resources supported by the CCTSI can be utilized by VA investigators. These resources include inpatient and outpatient research centers and core laboratories. Therefore, most GRECC research prior to July 2019 has been conducted in CCTSI facilities at the university. On July 29, 2019, the GRECC and COIN moved into renovated space in Building P, which is a VA-leased building adjacent to the VA campus. New projects utilize VA space, as appropriate. The GRECC research space in Building P includes wet bench space for sample processing, three exam rooms, an exercise training facility, a body composition lab, and limited physiological testing space. Because the RMR VAMC has very limited clinical research space (one exam room dedicated to research), the hope is that GRECC research facilities will be

operated as a shared resource that other clinical VA investigators can utilize. Resources needed to manage the facility in this manner (e.g., clinic manager, scheduling mechanism) are not yet in place. Two additional barriers will limit the usability of the GRECC research space until they can be resolved: 1) Investigational products managed by the VA pharmacy apparently cannot be stored in Building P. 2) There is no mechanism in place for transporting biospecimens collected in Building P to the hospital lab or bench labs, which is a problem for assays that require fresh samples.

Because Building P is close to yet separate from the Rocky Mountain Regional VAMC, it has been and will likely continue to be used for COVID-19-related activities. For example, trailers to support COVID-19 vaccine trials were installed in the Building P parking lot and the loading docks in Building P are used as base sites for drive-through COVID-19 testing. These activities have limited non-COVID-19 clinical and research activities in Building P.

Goals for research in the coming year, including measurable targets:

- Continue to support a cadre of GRECC investigators who are diverse with respect to seniority (junior, mid-career, senior) and translational research focus (basic, preclinical, clinical, population science).
- Continue to expand both our VA-sponsored research portfolio and our NIH-sponsored research studies that are open to and actively recruiting Veterans. We currently have approximately 10 VA applications (Merit Review, SPIRE, CDA2) that are in varying stages of revision or development, with some excellent scores received. Dr. Kohrt's recent Merit application received an impact score 164, percentile score 8.7. GRECC leadership will continue to work with the investigators to support their applications.
- A specific goal for the coming year is to open the NIH Common Fund initiative known as MoTrPAC (Molecular Transducers of Physical Activity Consortium) at the RMR VAMC. MoTrPAC includes a large (N=2,300) exercise intervention trial that will be carried out at 10 clinical sites across the country, including the University of Colorado. MoTrPAC will collect biospecimens (blood, muscle, adipose) from participants before, during, and after acute exercise sessions conducted before and after an exercise intervention. The biospecimens will be subjected to multiple 'omics assays (genomics, epigenomics, transcriptomics, proteomics, metabolomics, exosomics) at labs across the country. The resulting 'map' of molecular responses to exercise will be shared with the scientific community to advance the understanding of the molecular mechanisms for the many health benefits of exercise. Several of the MoTrPAC clinical sites are at academic institutions that have VA affiliates, but only Colorado plans to formally engage their VA partner (RMR VAMC). This will be facilitated by Dr. Kohrt, who is the PI of the Colorado clinical site and chair of the MoTrPAC Steering Committee. Although this was an aim for the previous year, the suspension of MoTrPAC activities for 6 months delayed progress.
- Another specific goal for the coming year is to help Dr. Michael Harris-Love build his GRECC-affiliated research program. Dr. Harris-Love is the Director of the University of Colorado Program in Physical Therapy. He was previously at George Washington University and the Washington DC VA Medical Center, and transferred his VA-sponsored research to the RMR VAMC. Space within the GRECC research facility is being developed for him.
- Maintain a GRECC voice in the RMR VAMC research enterprise. Dr. Kohrt will continue to be a standing member of the Research and Development Committee and Dr. Stevens-Lapsley will serve as the alternate member in her absence.
- Solicit applications and select outstanding candidates for GRECC Advanced Research Fellowships. Over the last four years, the Eastern Colorado GRECC has supported Advanced Research Fellows from a broad range of disciplines (endocrinology, physical therapy, occupational therapy, surgery, emergency medicine). For FY21, solicitations will be distributed December 1, letters of intent will be due February 1, invited applications will be due March 15, and selections will be made by May 1.

EDUCATION and EVALUATION:

Key committee memberships:

- National Performance Metrics Workgroup (Nearing)
- National Advanced Geriatric Research Fellowship Workgroup (Nearing)
- National Veteran Community Partnership Expansion Workgroup (Nearing)

Linkages between GRECC and VISN/VACO training efforts:

The Audiology externs, Pharmacy residents, Social Work interns and Psychology intern who receive training in the facility extend our capacity to care for older Veterans. Together with Geriatric Medicine Fellows, GRECC-supported associated health trainees care for ~6000 patients during their training year. These clinical training positions are an integral part of our overall educational mission. Our objective is that, because of these positive experiences, trainees will wish to return to the facility on a permanent basis. At a minimum, our training efforts will enhance aging-related healthcare capacity nationally. On average, 40% of trainees represented in the Associated Health Training Program are hired within the VA, either at the Rocky Mountain Regional VA Medical Center or another VA nationally.

Medical student training experiences in GRECC:

One 3rd-year medical student rotates with Geriatric Medicine faculty each month during their Community and Primary Care Clerkship. Each student receives a two-hour lecture from GRECC clinical faculty; participates in GRECC/Division of Geriatric Medicine Grand Rounds presentations and journal club discussions; and, home visits through Home Based Primary Care. During the 4th year medical student Geriatric Medicine elective, students participate in Geriatric primary care clinics, VA tele-geriatric consultations, sub-acute rehabilitation rounds, morning didactics and GRECC/Geriatric Medicine Grand Rounds presentations. They also have frequent interactions with Internal Medicine residents and Geriatric Medicine fellows.

Medical resident and fellow training experiences in geriatrics clinics and CLCs:

All primary care, categorical and Med/Peds Internal Medicine residents are required to complete a 4-week Geriatric Medicine rotation with GRECC/Geriatrics faculty. They also participate in Home Based Primary Care visits and tele-geriatrics consultations, including tele-dementia and Tele-palliative care. The Internal Medicine residents attend the weekday morning didactic lectures, GRECC/Geriatric Medicine Grand Rounds, and Journal Club. The Friday Educational Conference series brings together residents, Geriatric Medicine Fellows and Associated Health Trainees roughly every other Friday. Medicine residents attend an older-adult oriented Internal Medicine clinic supervised by Dr. Ian Reynolds (former Geriatric Medicine fellow), as well as the Geriatrics primary care clinic. Fellows participate in all these educational experiences while meeting their other ACGME clinical requirements.

Geriatric medicine fellowship(s) at affiliates:

University of Colorado - 4 clinical MD fellowship positions; we also have 10 training positions in our NIA-funded Institutional Training grant; T32

Advanced fellowships:

Number of GRECC Advanced RESEARCH Fellows in FY20: 5 (Sarah Wherry, Katie Seidler, Teresa Jones, Laura Swink, Jacob Capin; disciplines: exercise physiology, surgery and physical medicine and rehabilitation)

Geriatric Medicine Fellows: 4 (2 funded by the VA and 2 funded by the University of Colorado Hospital)

Number of GRECC Advanced Fellows in FY: 5

Affiliated Health Trainees:	# OAA-Approved Slots	# Filled Slots	# Non-OAA Slots
Audiology/Speech Pathology	3	3	1
Pharmacy	3	3	3
Psychology	1	1	
Social Work	2	1	
Physical Therapy			1

Medical Trainees:

Geriatric Medicine Fellow

4

Education and Evaluation Products and Projects during FY:

Education and Evaluation Activities:

Team Huddles to Support the Integration of Audiology Best Practices, including Timely Referral to Audiology: GRECC-supported audiology externs used “team huddles” to provide other members of the care team with information about the hearing health related needs of their patients. Audiology trainees reviewed patient charts prior to huddles and identified patients who had not had a hearing health evaluation for over a year. Externs gave providers audiology referral cards to give to these patients in order to facilitate addressing their hearing health needs. Team huddles also provided regular opportunities to reinforce audiology best practices in patient encounters. As part of the associated clinical demonstration project, audiology externs determine whether patients received a followed-up visit with audiology, the time between the primary visit and the audiology appointment, and issues addressed.

Dissemination: Poster presented at the 2019 GEC Leads Conference

Education and Evaluation Activities:

Ethics Seminar Series: This every-other-month (5-part) interprofessional series 1) hones skills in recognizing clinical ethical dilemmas, 2) increases awareness of resources when an ethical dilemma arises in the course of patient care, and 3) enhances the ability to engage in interprofessional, patient-centered decision-making processes to reach a solution that honors diverse values of stakeholders. We begin the series each year with a presentation on ageism called Changing the Narrative, which is delivered by a national trainer (Janine Vanderburg). This presentation and ensuing discussion set the stage for the rest of the series by surfacing implicit and explicit biases that can influence clinical decision-making and limit our awareness of alternative perspectives and values. The virtual dementia tour is the focus of the second seminar, which helps the trainees develop more knowledge and awareness of what it is like to try to navigate one’s environment with dementia in order to promote empathy and responsive patient-centered practice. We then learn about and practice applying two ethical decision-making frameworks: the 8-step approach to ethical decision-making developed by the Center for Bioethics, University of Colorado Anschutz Medical Campus, and the VA’s CASES approach. We use clinical ethics cases to apply each model as a systematic approach to exploring and considering different values and disciplinary perspectives on a case. We deliberate the case in small groups involving each discipline represented in the Associated Health Training program. Each group shares the content of their discussion and their ultimate decision. We compare the approaches and how the final care plan was reached. The series concludes with a variety of specific topics such as elder abuse.

Education and Evaluation Activities:

Telehealth Training Activities: In FY20, we continued to integrate Associated Health Trainees and Geriatric Medicine Fellows into tele-geriatric, tele-palliative care and tele-dementia clinics for older Veterans. CVT to CBOCs and contract nursing facilities, as well as VVC to Veterans’ homes extended access to geriatric specialty care. As a GRECC Connect hub, Eastern Colorado is considered a “high volume” site. Eastern Colorado also stands out nationally among GRECC Connect hubs in offering tele-palliative care and VVC for dementia care and caregiver support. These clinical innovations offer unique training opportunities.

Evaluation: In FY20, Dr. Nearing, in collaboration with the Eastern Colorado GRECC Connect team, developed, piloted and disseminated telehealth competencies to guide telehealth training. Dissemination: We disseminated this work at the 2019 Gerontological Society of America Annual meeting as a poster presentation. Subsequently, these competencies jump started the work of the GRECC Connect education workgroup, which brought together experts across this national network to further develop and refine the telehealth competencies. The work of this national committee was accepted for presentation as part of a VIRTUAL Geriatrics symposium to be featured during the 2020 virtual Gerontological Society of American Annual meeting.

Education and Evaluation Activities:

Interprofessional Case Conference Series: A monthly Interprofessional Case Conference Series provides an opportunity for all Eastern Colorado GRECC Associated Health Trainees (n= 14) and Geriatric Medicine Fellows (n= 4) to practice the art and science of collaboratively developing care plans that integrate the expertise of multiple disciplines. During each case conference, each trainee receives discipline-specific information from a real case, but that would be most applicable/available to a discipline other than their own. (For example, an audiology extern might receive information on the class of medications a patient is receiving.) Consequently, trainees must practice asking open-ended questions to solicit the knowledge/information held by other team members to inform care decisions. FY20 Refinements: providing more background knowledge about other disciplines prior to first case conference through Associated Health Training program orientation and shadowing opportunities; modeling by preceptors at first case conference; and, using the interprofessional adaptation of the 5Ms (adopted from the New England GRECC with permission) to reinforce the salience of different disciplinary perspectives in caring for older adults. Evaluation: Dr. Nearing continues to assess the development of interprofessional competencies and the perceived value of the interprofessional case conference using the validated Interprofessional Collaborator Assessment Rubric (ICAR; administered in September, January and April) and trainee exit interviews. Pre-post matched ICAR results have demonstrated significant growth on interprofessional collaboration skills most closely aligned with those emphasized by the Interprofessional Case Conference. During an exit interview, one Geriatric Medicine Fellow stated, "There have been more interprofessional discussions this past year than I had all three years of residency ... You can really head off a lot of questions or unnecessary consultations with team meetings. They are educational, as well. Whenever you have different disciplines coming together, that's when little drops of knowledge occur."

CLINICAL:

Clinical Demonstration Projects:

Assistive Listening Devices

Project Leader: Nearing
Project started: 10/1/2019
Anticipated completion date: 9/30/2024
Current stage of project: Development, not being applied
MOU funding received: \$3,560

Project outcome:

To provide Assistive Listening Devices (ALD) to Veterans receiving care in Geri PACT, ED, and high throughput primary care clinics to improve visit experience

Target population:

Any Veteran requesting a device to assist with hearing during a provider visit.

Description of project:

The goal of this project is to provide Assistive Listening Devices (ALD) to Veterans receiving care in in Geri PACT and high throughput primary care clinics (e.g., Rapid Access Clinic), as well as the Emergency Department and the new GRECC Fall Prevention Clinic. ALDs can minimize hearing limitations and maximize communication between provider and patient. In this project, we will be using the Comfort Duett by Comfort Audio as the ALD of choice. To support patient-centered and Veteran-directed care our specific aims are to: 1) Make ALDs available for patient use in rapid access rooms (n=10) and resident clinic rooms (n=8), ED rooms + triage (n=16), and Gerofit gym (n=5)– rooms that are in continuous use and, therefore, have high throughput ; 2) Evaluate and iteratively improve feasibility and acceptability (e.g., integration into clinical workflow); and 3) Evaluate the impact on medical residents (n= 80) and attendings (n= 3); patients and caregivers (n= ~600); and, health outcomes.

Main accomplishments for FY:

Secured required approvals and initiated project implementation.

Evaluation Activities

The Older Veteran Engagement Team provided input that informed the development of this clinical demonstration project. Specifically, they helped substantiate the need for this project and provided feedback on the questions featured in “Quick Cards” used to assess the impact of this project of patient-provider communication and satisfaction with patient-centered care.

Goals for current year

Implementation of the program in each of the clinics with collection of pre and post device Veteran feedback regarding visit experience

ECHCS GRECC Connect

Project Leader: Lum
Project started: 10/1/2017
Anticipated completion date: 9/30/2022
Current stage of project: Dissemination to other sites
MOU funding received: \$188,030

Project outcome:

Improvement in veteran health outcomes, including decreased polypharmacy and increased referral to appropriate VA and community referrals and serves.

Target population:

Any veteran or family member, including rural. VA CBOC staff.

Description of project:

Eastern Colorado joined GRECC Connect in FY18. The goal of GRECC Connect is to improve access to geriatric care for Veterans in rural areas. Older Veterans living in rural areas often have limited access to geriatric care and rural providers and staff often lack opportunities to learn about best practices for management of Veterans with geriatrics syndromes. The Eastern Colorado GRECC links geriatrics specialists (geriatricians, geropsychologist, social workers, pharmacists, audiologists and interprofessional trainees), located at Rocky Mountain Regional VAMC with outlying community-based outreach clinics (CBOCs) and Veterans in their homes.

Activities: Current modalities include clinical video telehealth (to CBOCs and thru VA Video Connect), electronic consultation, and educational teleconferences. Consultation is provided in tele-geriatrics and tele-geropsychology. All visits are transdisciplinary with at least physician, social worker, and pharmacist input. Many veterans and caregivers are also seen by the geropsychologist, especially related to dementia and caregiver support needs. Through this project, we aim to equip rural providers and staff with knowledge and skills to care for older adults, support staff at rural clinics by providing geriatrics and geropsychology consultation, and raise awareness of needs and services for older rural veterans through outreach. In FY19, this clinical demonstration project was linked to an educational project. We developed a formal telehealth geriatric curriculum for interprofessional training. Findings were accepted for presentation at the 2019 GSA meeting.

Main accomplishments for FY:

On-going telehealth consultation to 9 CBOCS. Increased percentage of visits provided to Veterans at home through VVC. Expanded to Interfacility Consults for tele-geriatrics to Cheyenne VAMC. Increased in tele-health geriatric SW FTE from the facility.

Evaluation Activities

In FY20, the GRECC Connect program conducted the following visits, recognizing the COVID-19 pandemic started in mid-March 2020.

Total FY20 Geriatrics visits (CBOC/VVC/Phone): 159
Total FY20 Geropsych visits (CBOC/VVC/Phone): 101
Total visits: 260; Total Miles saved: 51,813
Geriatrics CBOC visits: 102
Geriatrics VVC visits: 30
Geriatrics Phone visits: 27
Geropsych CBOC visits: 31
Geropsych VVC visits: 51
Geropsych Phone visits: 19
Unique Geriatrics visits: 158
Unique Geropsych visits: 77

Detailed evaluation was provided in coordination with the national GRECC Connect program (PI: William Hung, Bronx VA GRECC), led by Dr. Kady Nearing (Eastern Colorado ADEE) and reported to the Office of Rural

Health.

Goals for current year

Strengthen relationships with existing CO and new WY CBOCs. Expand to 1 full day of tele-geriatric consultation and partnering with tele-palliative care consultation. Refine the interprofessional curriculum based on trainee experience and feedback.

ECHCS Medically Complex Telerehabilitation (MC TeleRehab)

Project Leader: Stevens-Lapsley
Project started: 10/1/2019
Anticipated completion date: 9/30/2024
Current stage of project: Development, not being applied
MOU funding received: \$7,220

Project outcome:

Improvement in Veteran physical function measures, transition to independent exercise at home or in the center-based Gerofit program, improvement of daily physical activity and self-monitoring skills.

Target population:

Veterans aged ≥ 50 years who would benefit from exercise but cannot exercise independently

Description of project:

The goal of MC TeleRehab is to improve physical function, physical activity, and promote independence among older Veterans with medical complexity during the COVID-19 pandemic and beyond. The COVID-19 pandemic has resulted in increased sedentary activity due to reduced opportunities to participate in physical activity and heightened fear of being in public. Older Veterans are at heightened risk for negative consequences of sedentary activity which, when combined with medical complexity, rurality, and social isolation, significantly contribute to reduced access to in-person healthcare services, lower quality of life, and early mortality.

MC TeleRehab is a 12-week multicomponent telerehabilitation program that includes: 1) biobehavioral interventions, 2) social support, and 3) progressive rehabilitation (individual and group sessions). Biobehavioral intervention addresses barriers related to actively participating in healthcare and maintaining physical activity. Because each Veteran presents with a unique combination of knowledge, beliefs, and capabilities, a personalized approach is necessary. Biobehavioral interventions will be supported by VA mobile health Applications and wearable devices (Fitbit), which is a strategy that could lead to mechanisms for scalability. The second component, social support, addresses an important social determinant of health: social isolation. Social isolation and loneliness are common in older Veterans and have a negative impact on quality of life. Peer support is an acceptable and feasible intervention to reduce these symptoms, and group rehabilitation delivered in-person enhances participant motivation and engagement, decreasing symptoms associated with social isolation. However, the effectiveness of group telerehabilitation with facilitated virtual group discussions for addressing social isolation and loneliness is unknown. Finally, current telerehabilitation strategies for medically complex older adults lack clear guidance. Consequently, the quality, effectiveness, and safety of telerehabilitation is unknown. The MC TeleRehab program aims to address this gap in knowledge. We will also assess Veteran responses in terms of daily physical activity, physical function, quality of life, social isolation, and mental health. Finally, we will identify factors associated with Veteran App engagement and sharing of health data electronically (Annie App, MyHealtheVet).

Main accomplishments for FY:

Developed protocol. Sought and garnered funding and collaboration through the Office of Connected Care

Evaluation Activities

The Older Veteran Engagement Team provided input that informed the development of this clinical demonstration project. Specifically, they helped to provide feedback on the use of technology and apps for engaging Veterans in home exercise.

Goals for current year

1) Development of protocols and guidelines for exercise sessions; 2) quality, feasibility, and safety reports for multicomponent telerehabilitation; 3) qualitative information to improve Veteran reach and engagement with mobile health apps

Gait Speed Screening Initiative: To Identify Veterans at Risk of Losing Independence during COVID-19 Pandemic and Beyond

Project Leader: Stevens-Lapsley
Project started: 8/1/2020
Anticipated completion date: 7/31/2025
Current stage of project: Development, not being applied
MOU funding received: \$0

Project outcome:

To improve early recognition of functional decline in older Veterans via routine gait speed screening and facilitate timely referrals for rehabilitation that targets this modifiable physical function risk factor.

Target population:

Older Veterans receiving outpatient services at the Rocky Mountain Regional VAMC Geriatric Specialty Clinic. Geriatric physicians and nurses are also be involved in implementing this project.

Description of project:

Older Veterans demonstrating reduced physical function are at high risk for health status decline. Moreover, the COVID-19 pandemic has resulted in reduced opportunities to participate in community activities leading to greater sedentary behavior within this vulnerable population. Providers are alarmed at the pandemic-associated declines in physical activity and physical function (35-40% reductions reported), which increases the risk for loss of independence in older Veterans. While knowledge of physical function status has the potential to positively impact older Veterans' care through timely intervention, it is not routinely collected in outpatient clinics, including the Geriatric Specialty Clinic. Gait speed is a sensitive measure of physical function that is highly predictive of adverse health events (e.g., falls and hospitalizations), increased healthcare utilization (e.g., emergency department visits, hospitalizations, institutionalization in long term care facilities), and mortality. Further, it is feasible to quickly assess in a clinic setting and is a modifiable risk factor. Thus, we propose implementing routine assessment of gait speed during patient check-in procedures for Veterans attending the Geriatric Specialty Clinic to 1) improve early recognition of functional decline; and 2) facilitate timely referrals for, and increased access to, preventative and restorative rehabilitation during the COVID-19 pandemic and beyond; and 3) prevent hospitalizations and institutionalization among older Veterans. Physicians will receive support tools for utilizing gait speed status to identify need for rehabilitation services. This will help ensure Veterans receive timely access to interventions that address functional deficits and prevent adverse health events. For example, Veterans with gait speeds below 1.0 meters per second and no acute musculoskeletal conditions could be referred to Gerofit (group exercise classes for Veterans-virtual), and those with gait speeds below 1.0 meters/second and acute or chronic musculoskeletal conditions could be referred to physical therapy (outpatient or home health), or our recently developed telerehabilitation program at the Rocky Mountain Regional VAMC. Routine collection of gait speed over time can also be used to identify Veterans who are not responding to rehabilitation interventions and might need an altered course of care. Additionally, Veterans will receive education regarding gait speed as a modifiable risk factor, which will foster Veteran engagement in their healthcare and potentially empower them to seek improvements in their health status. In the long-term, this project will help prioritize access to necessary interventions in a timely manner and establish the feasibility and utility of gait speed assessments for future wide-spread implementation across VAMCs facing the long-term impacts of COVID-19.

Main accomplishments for FY:

Educated physicians on gait speed. Adapted gait assessment collection procedures for the clinics and updated EMR documentation templates to include gait speed. Developed physician job aids to guide referrals and developed patient education materials.

Evaluation Activities

Patient-Level Outcomes: frequency of Veterans' follow through with referrals for rehabilitation services; changes in Veterans' gait speed; number of adverse health events and/or frequency of healthcare utilization (e.g., falls, ER visits, hospitalization, institutionalization, death); change in Veterans' quality of life.

Provider-Level Outcomes: frequency of gait speed collection; frequency of Veteran referrals for rehabilitation services; changes in clinician knowledge of gait speed and risk categories; frequency of utilization of clinical decision support tools to guide referrals.

Goals for current year

Implement a feasible process to measure and document gait speed status during clinic check-in procedures; interact with physicians and nursing staff to ensure routine gait speed collection; provide guidance on referral decisions.

Interdisciplinary Mobility Program for Veterans in Skilled Nursing Facilities

Project Leader: Stevens-Lapsley
Project started: 9/1/2018
Anticipated completion date: 12/31/2020
Current stage of project: Field testing, not yet evaluated
MOU funding received: \$0

Project outcome:

The goal is to evaluate whether an interdisciplinary, targeted walking program will improve functional outcomes in Veterans in a skilled nursing facility.

Target population:

Patients in a skilled nursing facility, although nursing, CNA, and other health professionals will also be involved in training and implementation of mobility program.

Description of project:

Our previous efforts to address hospital-associated deconditioning in the SNF using high-intensity, functional resistance training during rehabilitation (titled i-STRONGER, ["IntenSive Therapeutic Rehabilitation for Older Skilled NursinG HomE Residents"]) demonstrated superior outcomes including improvements in physical function and gait speed, increased rates of community discharge, and cost-effective reductions in length of stay compared to usual care. However, during a typical SNF stay, patients receive rehabilitation for 1-2 hours of their day and remain sedentary for up to 14 waking hours, which is not reflective of the mobility levels needed to thrive in the community. A critical question extending from the previous trial is whether the positive functional results demonstrated with i-STRONGER are negated by sedentary behavior outside of structured rehabilitation. Barriers to mobility outside of structured rehabilitation include perceived safety concerns (pain, falls), staff shortages, lack of formal training on safety and equipment use, time constraints, and interdisciplinary communication barriers. This gap provides an excellent opportunity for the interdisciplinary SNF team to collaborate and use supplemental mobility as a non-pharmacological method to extend the gains made during formal rehabilitation sessions to levels appropriate for discharge into the community and set the stage for larger scale dissemination and implementation efforts. Thus, we developed High-Intensity Rehabilitation + Mobility (HeRo) to determine the feasibility of adding an interdisciplinary, patient-centered mobility program to the previously effective i-STRONGER. HeRo is an approach to engaging patients in their functional recovery after hospitalization through integration of behavioral economics techniques. The emerging intersection of healthcare and behavioral economics uses incentives, social norms, technology, and gamification to optimize health. Furthermore, we will assess feasibility using qualitative methods in combination with implementation evaluation to better understand how to overcome barriers to supplemental mobility in the SNF, which is critical to rapidly translating the results of this study for broader dissemination and impact on Veteran care in SNFs nationwide.

Main accomplishments for FY:

Hired a CNA who started 2/1/2020 and was able to enroll and work with 6 Veterans at our local State Veteran's Home before COVID shut down operations. We hope to resume our mobility program in spring 2021.

Evaluation Activities

Our evaluation activities were suspended with COVID restrictions.

Goals for current year

We hope to resume our intervention in the spring or summer of 2021.

Promoting Hearing Aid Self-Sufficiency by Enhancing Skill Building, Access to Information and Caregiver Support

Project Leader: Nearing
Project started: 10/1/2019
Anticipated completion date: 9/30/2024
Current stage of project: Evaluation (including testing and use)
MOU funding received: \$0

Project outcome:

Decreased number of appointments required for troubleshooting issues/challenges and wait times;
Increased patient satisfaction; to promote the use of hearing aids by Veterans.

Target population:

Veterans newly fitted for hearing aids

Description of project:

The goal of this project is to improve skills building, access to information resources and ongoing support for new hearing aid wearers. At the RMR VAMC audiology department, we see a lot of walk-in appointments for hearing-aid related issues. In a review of 104 Veteran health records, 41% of walk-in appointments stemmed from lack of knowledge of hearing aid handling and care. Lack of knowledge and basic skills for cleaning and caring for hearing aids result in suboptimal performance and inconsistent use of these devices, which are essential to maintaining social connections and cognitive function. This project improved skill building, access to information resources and ongoing support through engagement of caregivers. To accomplish this, we provided hands-on teaching, written materials with visual references, and encouraged caregiver involvement in hearing aid fittings. With feedback from our Older Veteran Engagement Team (OVET) – Veterans who regularly provide feedback on quality improvement and clinical demonstration projects, we created a “Hearing Aid Troubleshooting Guide” – a step-by-step guide of what to do at home if a Veteran’s hearing aid is not working. Two months after the initial hearing aid fitting, we conducted a phone interview, with questions also informed by OVET (e.g., What information have you used/needed to refer to? Were the materials helpful? Are you using your hearing aids consistently? Any issues, questions?). As a result of the improved training protocol and enhanced post-fitting support, within two months of implementing these changes we observed a 44% decrease in the total number of follow-up appointments focused on addressing lack of basic hearing aid skills. We also observed a significant increase in the number of Veterans who included family members at fitting appointments. Veterans are more satisfied and self-sufficient with their devices and do not have to spend time and resources visiting the clinic. This project has reduced the number of unnecessary follow-up appointments and patient wait times, creating more capacity to care for Veterans with other hearing health needs. Future directions (post-COVID-19): establishing regular classes for new and established hearing aid wearers as another mechanism to provide training and support.

This project was developed, implemented, evaluated and disseminated in FY20.

Main accomplishments for FY:

Development of hands-on training that encourages participation of caregivers; Phone follow-up supported with a standardized interview guide; Evaluation to assess Veteran satisfaction and impact on need to visit the clinic for troubleshooting issues

Evaluation Activities

With feedback from our Older Veteran Engagement Team (OVET) – Veterans who regularly provide feedback on quality improvement and clinical demonstration projects, we created a “Hearing Aid Troubleshooting Guide” – a step-by-step guide of what to do at home if a Veteran’s hearing aid is not working. Two months after the initial hearing aid fitting, we conducted a phone interview, with questions also informed by OVET (e.g., What information have you used/needed to refer to? Were the materials helpful? Are you using your hearing aids consistently? Any issues, questions?).

Goals for current year

Sustain project

Safety in Dementia: Development of an Online Caregiver Tool for Firearm, Driving and Home Safety

Project Leader: Betz
Project started: 10/1/2019
Anticipated completion date: 9/30/2024
Current stage of project: Development, not being applied
MOU funding received: \$0

Project outcome:

Decision aid to support caregivers of individuals in taking actions to enhance safety at home

Target population:

Caregivers of older Veterans with a diagnosis of Alzheimer's Disease and related dementias.

Description of project:

The goal of this project is to design a decision aid to support caregivers of individuals in taking actions to enhance safety at home. The decision aid is novel in the comprehensive way in which access to firearms and safe storage options are addressed. Qualitative research with key stakeholders, including caregivers, healthcare providers, individuals who own firearms, and firing range owners, helped craft messaging to resonate with key audiences. These interviews also provide important feedback regarding effective dissemination strategies/approaches to enhance reach.

Main accomplishments for FY:

Completed key stakeholder interviews and focus groups (one with older Veterans and a second with caregivers) to inform the development of the decision aid. Conducted initial piloting and usability testing.

Evaluation Activities

Development and initial evaluation met all Standards for Universal reporting of patient Decision Aid Evaluation (SUNDAE).

Goals for current year

Advance this work by evaluating the acceptability, utilization and effectiveness of the Safety in Dementia caregiver decision aid with older Veterans with a new diagnosis of Alzheimer's Disease/dementia and their caregivers.

Targeted Audiologic Training for Associated Health Trainees and Geriatric Medicine Fellows

Project Leader: Nearing
Project started: 7/1/2017
Anticipated completion date: 5/30/2022
Current stage of project: Evaluation (including testing and use)
MOU funding received: \$0

Project outcome:

Increased access to training in audiology best practices (our needs assessment confirms th trainees typically receive no or very little formal training in audiology-related best practices)

Target population:

•Trainees: Associated Health Trainees (n= 12 in FY18); Geriatric Medicine Fellows (n= 3 in FY18)•GRECC Clinical Faculty•Older Veterans with hearing loss

Description of project:

The goal of this project is to increase the integration of audiology best practices in the care of older Veterans. Specific activities include:•Interprofessional team hud:•Audiology trainees review patient charts, surface audiology-related patient context/considerations, make recommendations before fellows see patients•For patients that have never been seen in audiology or are overdue, audiology externs give Geriatric Medicine Fellows a card to give to the patient, which encourages the patient to make a follow-up appointment in audiology.•Delivery of case-based education (through GRECC didactic offerings), primarily Friday Educational Conferences; all audiology externs have opportunities to present.•Direct clinical observations of Geriatric Medicine Fellows' during clinical visitsoSpecific feedback given following final pre and final post observation (Noting themes across a given fellow's set of observations: What was observed? What was done well? Recommendations to improve audiology-related practices).

Main accomplishments for FY:

Audiology continued with participation in virtual huddles to offer input regarding Veterans with hearing loss, despite COVID pandemic. Submitted as a poster presentation to the annual meeting of the Joint Defense/VA Audiology Conference

Evaluation Activities

Clinical observations of Geriatric Medicine Fellows guided by a standardized protocol, which was refined in FY20 to include key observations in relation to the use of assistive listening devices (provided as part of a new FY20 clinical demonstration project). Key outcome for the Targeted Audiologic Best Practices clinical demonstration project: changes in clinical practice related to the integration of audiology best practices.

Goals for current year

Based on COVID restrictions, continue with audiology trainees' observation of fellows in clinic, reinvigorate data collection.

Additional Narrative:**Significant and relevant changes, challenges, and accomplishments not covered elsewhere in this report****Clinical Activities:**

Title: The University of Colorado Statewide Vulnerable Elder Protection Team (\$831,972; funder: Colorado Department of Public Safety, Division of Criminal Justice, Office of Victims Programs, Victims of Crime Act funding awarded August 2020)

Description: This grant will develop and implement the first Colorado Vulnerable Elder Protection Team to provide multi-disciplinary care to hospitalized victims of elder abuse or neglect. The grant work proposes to dramatically increase the level of services to victims, establish predictable, reliable care protocols, and increase utilization of dedicated vulnerable elder care for victims statewide. We are well-suited to accomplish this objective because of our existing expertise in geriatrics. The Statewide Vulnerable Elder Protection Team (VEPT) will be housed within the University of Colorado's Anschutz Medical Campus and will be an initiative of the Multidisciplinary Center on Aging (MCoA). The team involved in the grant represents CU Anschutz Medical Campus, UC Health, Rocky Mountain Regional VA Medical Center, Children's Hospital of Colorado, and Denver Health. Joleen Sussman, RMR VAMC geropsychologist, Training Director and member of the GRECC Connect team, and Ian Reynolds, VA Geriatrics Fellowship Site Director, are all involved in the CU Anschutz Elder Abuse Task Force and components of this grant.

Currently, hospitals in Colorado deliver services to victims of elder maltreatment in highly variable, ad hoc, disjointed ways without a dedicated focus on older adults. In most hospitals, care is provided by clinicians, social workers, nurses, and other staff who are not geriatric experts and have little experience dealing with the medical, social, legal, and ethical complexities inherent in family violence. Standardized protocols, care pathways, and multi-disciplinary care are non-existent. This process leads to highly variable levels of care, with most vulnerable older adults experiencing lengthy hospitalizations and inconsistent processes to determine decision-making capacity. Ultimately, these long hospitalizations often result in undesired nursing home placements and poor social, financial, and legal outcomes. Lacking a reliable system to address the problem, clinicians are less likely to look for or recognize signs of maltreatment.

Research Activities:

Wendy Kohrt, PhD, GRECC Associate Director of Research, Professor of Medicine in the Division of Geriatric Medicine and the Nancy Anschutz Chair in Women's Health Research, has been named Distinguished Professor of the University of Colorado. The title Distinguished Professor is the highest honor that CU bestows on its own faculty members. Since 1977, only 118 faculty members have received the honor. According to the CU System list of Distinguished Professors, there have been 27 School of Medicine professors to receive the honor, and only three women among them. Wendy is an exemplary leader whose contributions to medical science and education merit this extraordinary recognition.

Education Activities:**Issues Not Addressed Elsewhere in the Report:**

Awards, Leadership, and Distinctions:

Marian Betz: National Award / Recognition

Certificate of Appreciation for “Exemplary Service and Leadership in Development of the ICAR2E Tool”, American College of Emergency Physicians and American Foundation for Suicide Prevention

Cory Christiansen : Academic Leadership

UC AMC Promotion to Professor

Cory Christiansen : Academic Leadership

Member, DPT Program Advisory Committee, University of Colorado

Cory Christiansen : Academic Leadership

Member Chair, Scientific Advisory Committee for the Foundation of Physical therapy; Member DPT Program Advisory Committee for the University of Colorado; Member Rehabilitation Sciences Advisory Committee for the University of Colorado

Cory Christiansen : Academic Leadership

Member, School of Medicine Faculty Promotion Committee, UCD

Marian Betz: National VA Leadership

Invited member, Means Safety Line of Effort, President's Roadmap to Empower Veterans and End a National Tragedy of Suicide (PREVENTS)

Marian Betz: Academic Leadership

School of Medicine Gender Equity Initiative, invited member, task force

Robert Schwartz : Local VA Leadership

GRECC Director/Service Chief

Marian Betz: National Award / Recognition

2020 American College of Emergency Physicians and American Foundation for Suicide Prevention “Suicide Prevention Innovation in Acute Care Suicide Prevention Award”, Washington, DC

Marc Cornier : Other Leadership

Director, Advanced Lipid Disorders Clinic, University of Colorado Hospital, 7/19-present

Marian Betz: National Award / Recognition

Urgent Matters Commendation Award for Excellence in Innovation for “What You Can Do” (Collaborator)

Marian Betz: National Award / Recognition

Urgent Matters Commendation Award for Excellence in Innovation for “Lock to Live” (Director)

Marian Betz: Local Award / Recognition

Professional Leadership Award for 2019 American Association of Medical Colleges Mid-Career Women Faculty Professional Development Seminar, Women in Medicine and Science Committee, University of Colorado School of Medicine, Aurora, CO

Lauren Abbate: Academic Leadership

Assistant Clinical Professor, Dept of Emergency Medicine

Lauren Abbate: Local VA Leadership

Medical Director RMRVAMC Gerofit Exercise Program

Lauren Abbate: Local VA Leadership

Site Director, RMRVAMC Geriatric Emergency Department Accreditation Program

Marian Betz: Academic Leadership

American College of Surgeons, Committee on Trauma, Injury Prevention and Control Committee; invited Consultant

Wendy Kohrt : Academic Leadership

Member, Clinical and Translational Sciences Awards (CTSA) Consortium Working Group on Inclusion of Older Adults in Clinical Research

Karleen Stratton : National Award / Recognition

Clariivate one of top 1% most frequently cited authors in social science

Jennifer Stevens-Lapsley : National Award / Recognition

Steven J. Rose Award for Excellence in Orthopedic Research: Home-Health-Care Physical Therapy Improves Early Functional Recovery of Medicare Beneficiaries After Total Knee Arthroplasty

Jennifer Stevens-Lapsley : Academic Leadership

University of Delaware Physical Therapy Alumni Award

Jennifer Stevens-Lapsley : National Award / Recognition

Catherine Worthingham Fellow, American Physical Therapy Association

Kerrie Moreau : Other Leadership

Director Cardiovascular BiImaging Core

Hillary Lum : National VA Leadership

Virtual Geriatrics (GRECC Connect) Education and Workforce Enhancement Core Lead

Marc Cornier : Other Leadership

Chair, Clinical Endocrinology Update Steering Committee, Endocrine Society, 11/18-present

Wendy Kohrt : Academic Leadership

Member, Executive Committee for the NIH Sleep and Circadian T32 award

Marc Cornier : Other Leadership

Medical Director, My New Weigh weight loss program, Anschutz Health and Wellness Center, 9/14-present

Wendy Kohrt : Local VA Leadership

Associate Director of Research

Wendy Kohrt : Academic Leadership

Chair of the Executive and Steering Committees for the NIH Common Fund Initiative on Molecular Transducers of Physical Activity (MoTrPAC)

Wendy Kohrt : Academic Leadership

Director of the Colorado Specialized Center for Research Excellence (SCORE) in Sex Differences and Women's Health

Marc Cornier : Academic Leadership

Associate Director of the Anschutz Health and Wellness Center, University of Colorado School of Medicine, 1/19-present;

Marc Cornier : Academic Leadership

Associate Division Head, Division of Endocrinology, Metabolism and Diabetes, University of Colorado School of Medicine, 10/19-present

Marc Cornier : Other Leadership

Director, Lipoprotein Apheresis Program, University of Colorado Hospital, 1/14-present

Wendy Kohrt : Academic Leadership

University of Colorado Distinguished Professor Award

Wendy Kohrt : Academic Leadership

Member, Advisory Committee, Anschutz Health and Wellness Center

Performance Measures Report Card for Eastern Colorado, 2020

The GRECC Performance Measures Committee establishes national standards, aimed at ensuring that GRECC activities contribute fully to local and national program goals. The 18 goals cover administrative, research, education, and clinical activities. This table lists the site's performance as well as the target.

PERFORMANCE MEASURE	SITE PERFORMANCE	TARGET
MOU with VISN and facility	Yes	Yes
Average # of funded research projects	1.7	1 or more
Average research expenditures per research FTE	\$606,917	>\$500,000
Average aging-related papers per professional core staff	6.3	2 or more
Average peer-reviewed papers by investigators	13.0	3 or more
Total papers by core staff	144	21 more
Percentage of papers listing GRECC affiliation	100%	95% or more
Number of CDA mentees	34	1 or more
Number of qualified training hours delivered by GRECC staff	4208	>1500
Number of associated health disciplines	4	3 or more
Average scholarly presentations per professional core staff	4.4	4 or more
Number of clinical demonstration projects	8	2 or more
Number of clinical demonstration projects that were evaluated	2	1 or more
Number of clinical demonstration projects that were disseminated	1	1 or more
Average % time devoted to research by professional core staff	56%	>45%
Average % time devoted to education by professional core staff	13%	>10%
Average % Non-GRECC clinical time	4%	<20%