

# Reaching Rural Veterans: Applying Mind-Body Skills for Pain Using a Whole Health Telehealth Intervention (RAMP)

Diana Burgess, PhD, Center for Care Delivery and Outcomes Research (CCDOR), Minneapolis VA Health Care System; University of Minnesota

Roni Evans, DC, PhD, University of Minnesota

Katherine Hadlandsmyth, PhD, Center for Access & Delivery Research and Evaluation (CADRE), Iowa City VA Health Care System; University of Iowa



# Disclosures

---

- No relevant financial relationships to disclose.
- Off-label use will not be discussed in this presentation.
- Funding from the National Institute of Nursing Research (NINR), as part of the NIH HEAL Initiative (1UG3NR020929-01), with resources from the Minneapolis VA Health Care System and Iowa City VA Health Care System.  
The views expressed in this talk are those of the authors and are not necessarily endorsed by the NINR, NIH, U.S. Department of Veterans Affairs, or the United States Government.

# Poll Question #1

- What is your primary role in VA? (choose 1)
  - student, trainee, or fellow
  - clinician
  - researcher
  - administrator, manager or policy-maker
  - other

# Today's talk

---

- I. Introduction to the NIH HEAL Initiative, RAMP Study
- II. Background: Chronic Pain in Veterans, Whole Person Health
- III. Collaboration with Advisors
- IV. RAMP Intervention
- V. Questions

# NIH HEAL Initiative - Prevention and Management of Chronic Pain in Rural Populations

---

- UG3/UH3 projects that accelerate implementation of effective non-opioid interventions for chronic pain management in rural and remote populations
- Partner with one or more rural healthcare system(s) to plan and implement the intervention
- Trials join HEAL “Pragmatic and Implementation Studies to Improve the Management of Pain and Reduce Opioid Prescribing” (PRISM) Program



# Rural Veterans: Applying Mind-Body Skills for Pain (RAMP)

---

**Goal:** To improve pain management and reduce opioid use among rural patients in the VA healthcare system

- The RAMP program is a cohesive, scalable multi-component CIH intervention that addresses Veterans' needs and overcomes existing barriers to pain care
- RAMP is designed to be implemented within the VA through its nationwide Whole Health System initiative
- We will collaborate with Veteran patients, VA health system advisors, and Veteran-serving community advisors

# RAMP Study Overview

---

**Phase 1 UG3 (2 years): Engagement activities** including developing & working with multi-level advisory panels (n = 35-50) & pilot study (n = 40)

**Phase 2 UH3 (3 years): Hybrid Type II Effectiveness Implementation Pragmatic Clinical Trial**

1. Assess **effectiveness** of cohesive mind-body intervention delivered by Whole Health coaches via telehealth (RAMP), at improving pain and secondary outcomes among rural VA patients with chronic pain (n = 500)
  
2. **Implementation.** Work iteratively with multiple levels of advisors (patients, community advisors, VA healthcare system leaders and staff; n = 35-50) to co-develop, evaluate intervention implementation strategies used in the trial and adapt these strategies to scale up RAMP within the national VA healthcare system
  - a. **Mixed-methods assessment** of facilitators/barriers, RAMP use, etc.
  - b. **Co-creation** of plausible implementation strategies to scale up RAMP
  - c. **Budget impact analysis**

# Rural America is disproportionately affected by chronic pain

---

- Higher rates of both chronic pain and high-impact chronic pain (Dahlhamer, 2016)
  - Urban: 19% (7% high impact)
  - Rural: 27% (11% high impact)
- Higher incidence of chronic joint and low back pain & physical limitations (Jones, 2009)
- More likely to be prescribed opioids & less likely to use non-opioid interventions (Garcia, 2019; Prunuske, 2014)

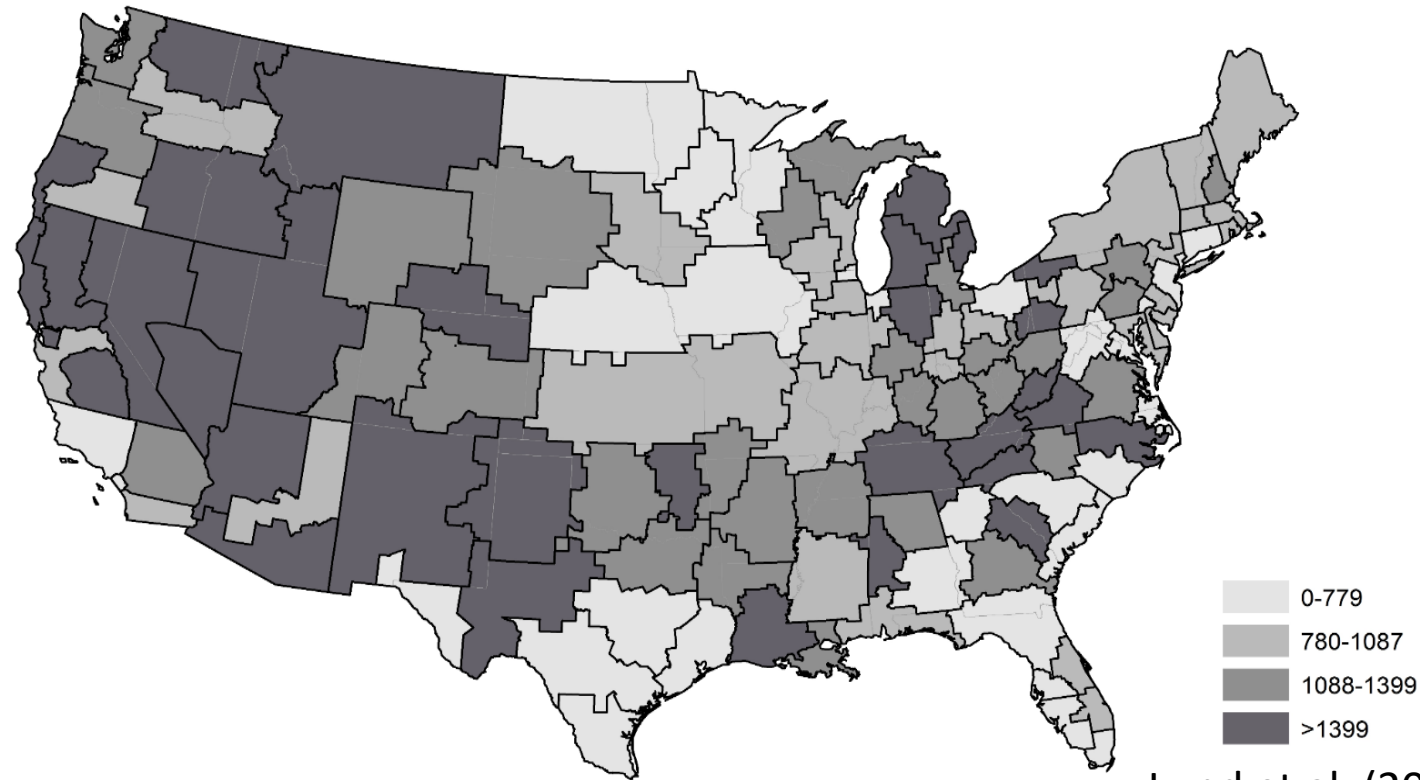


## Rural/Urban disparities in pain & pain management exist in VA

---

- The Veterans Healthcare Administration (VA) serves 2.7 million rural Veterans
- Veterans have increased risk of chronic pain & greater pain prevalence & severity (Nahin, 2017)
- Rural Veterans
  - Less likely to receive comprehensive and specialty pain care (Hadlandsmyth, 2022; Arout, 2017)
  - Lower use of self-management for pain (Eaton, 2018)

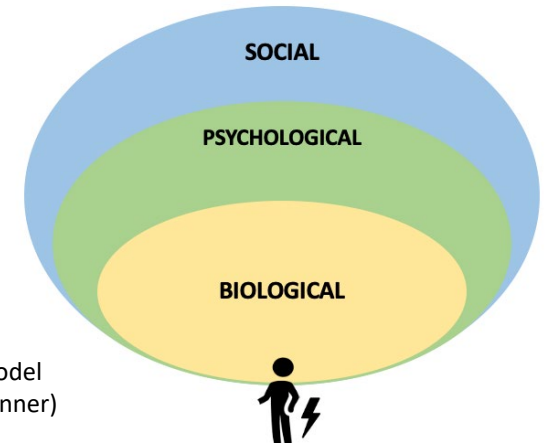
# Rural VA patients are more likely to receive opioid medications



Lund et al. (2019) *Military Medicine*

# Chronic pain

- Complex 'biopsychosocial' (BPS) phenomenon
  - Greater intersection of BPS factors in Veterans (coping, depression and anxiety, trauma, social support, income, education)
  - A condition that affects the whole person
- Growing recognition that pain requires 'management' versus 'cure'
- Emphasis on adaptive or resilient pain behaviors = 'helpful pain behaviors'
  - More self-management...
    - Less use of substances
    - Less fear avoidance
    - More movement, physical activity
    - More social interaction
    - Greater emotional regulation



Dynamic Biopsychosocial Model  
(Lehman, Engel, Bronfenbrenner)

# Complementary & Integrative Health (CIH) Self-Management for Whole Health

---

- Growing body of research to support multiple complementary and integrative self-management modalities for improving pain and other BPS outcomes
  - Psychological, mind-body, physical exercise & activity, lifestyle advice, pain education
  - No one approach 'best'
  - Desire for integration of multiple approaches, greater access among Veterans
- Increased calls for interventions that integrate multiple modalities, cohesively, to address intersecting BPS (whole person) needs

# VA and Whole Health

---

- VA's Office of Patient Centered Care and Cultural Transformation has expanded the CIH services over the last decade, supported by 2016 Comprehensive Addiction and Recovery Act
  - Approved CIH approaches covered by Veterans Medical Benefits package: acupuncture, biofeedback, clinical hypnosis, guided imagery, massage therapy, meditation, tai chi/qi gong, yoga
- VA is a national leader in advancing CIH through its Whole Health model of care
- Nearly 1/3 of VA patients with pain engage in some Whole Health services

# CIH for pain remains underutilized, especially for rural Veterans

---

- Multi-level barriers to widespread implementation of CIH in VA
  - Lack of awareness and knowledge among clinicians and patients
  - Need for clinician referral
  - Support to successfully engage in CIH self-management
  - Demand for CIH providers often outstrips supply
  - Lack of availability of CIH/Whole Health pain care services outside of main VA medical centers

# RAMP Advisor Input

## Community Advisors

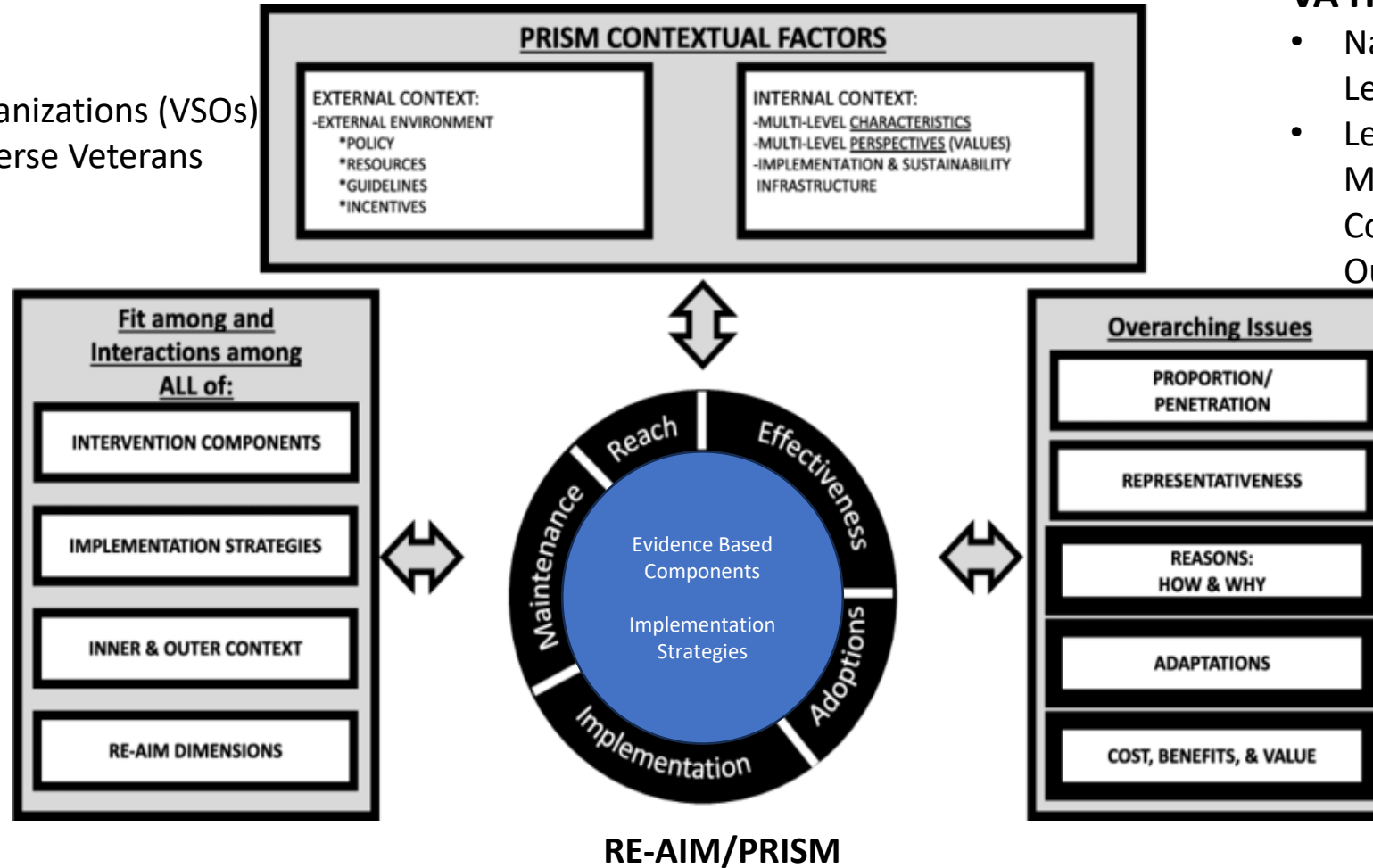
- Local Veteran Service Organizations (VSOs)
- National VSOs serving diverse Veterans
- Veteran Leaders

## VA Healthcare System

- National VA Program Office Leaders
- Leaders, Staff: VISN, VA Medical Centers, Community-Based Outpatient Clinics (CBOCs)

## VA & Non-VA Patients

- Veteran engagement panels
- Community engagement panels
- Participants in previous trials

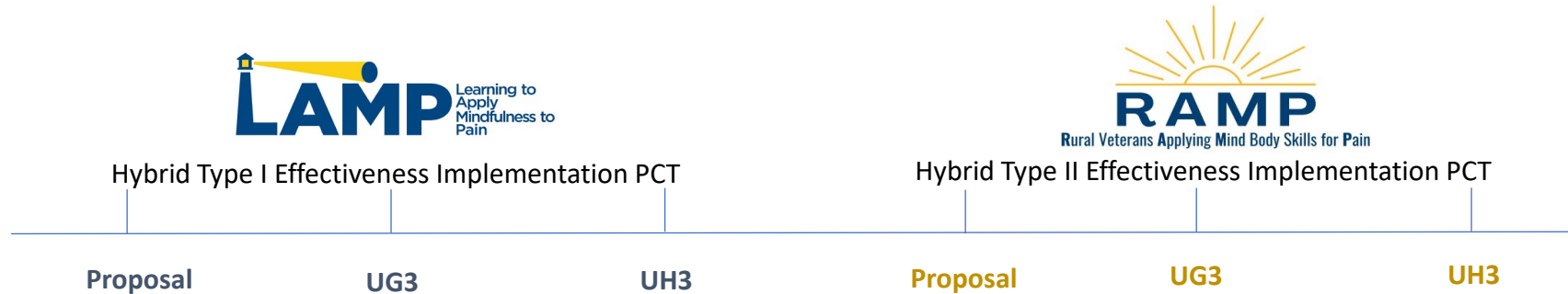


## VA & Non-VA Scientists

## VA & Non-VA Practitioners



# Iterative input from advisors, critical to RAMP intervention & study design



Example: Key informant interviews identified barriers & facilitators to implementing LAMP via telehealth, using VA Whole Health coaches (LAMP, UH3)

## Barriers

- Confusion, uncertainty, lack of awareness about the Whole Health coaches; lack of centralization and clear delineation of the role; are coaches allowed to deliver intervention for pain?
- Structures and resources to support Whole Health are rapidly changing
- High levels of burnout and overload -> some resistance to new programs & “top-down” mandates

## Facilitators

- Strong support from National Leadership; local champions, support for telehealth, aligned with facility leader goals

## How this informed RAMP

- Need multi-level advisor involvement, early and often
- Collaborate with advisors to co-create and test tailored implementation strategies



# RAMP Current Engagement Plan

---

**GOAL: Gain a better understanding of rural VA needs**

Patient Advisors (n=15-20)

- RAMP Engagement Panel and other ongoing Veteran Engagement Panels

Community Advisors (n=10-15)

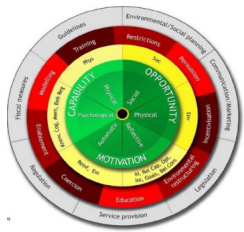
- Non-VA Community Organizations (VFWs, American Legions, national organizations serving marginalized groups, etc.)

VA Health Care System Advisors (n=10-15)

- National VA Program Office Leaders
- VA Medical Center Leaders & Staff
- VA Community Based Outpatient Clinics



# RAMP Intervention Underlying Model



Michie et al (2014). *The Behavior Change Wheel*



## Helpful Pain Self-Management Behaviors

- Non-drug self-management
- Stress, emotional regulation
- Physical activity
- Social interaction

## Main Goal of RAMP Intervention

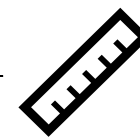
To provide rural VA patients the opportunities and resources, to enhance their capabilities and motivations to engage in helpful pain self-management behaviors

\*Capitalize on the existing VA Whole Health Initiative's opportunities and resources

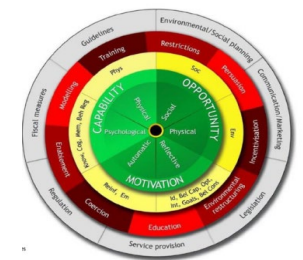
# RAMP Intervention Design Process

1. What are the target behaviors?
2. What do Rural Veterans with pain need? What do program facilitators need?
3. What are the appropriate intervention strategies (that can work in the VA)?
4. What content, behavior change techniques should be included?
5. What formats of delivery should be used?

Puts RE-AIM/PRISM into action at the intervention level  
Has, and will continue to involve our key advisors



- ✓ Affordable
- ✓ Practical
- ✓ Effective
- ✓ Acceptable
- ✓ Safe
- ✓ Equitable



Michie et al (2014). *The Behavior Change Wheel*.



## Group Mind-Body Program

Telehealth Sessions



First Session:

- 1 x 60 min, 1:1 with WH Coach
- Focus: Personal Health Inventory For Pain Self-Management

Group Sessions:

- 11 x 90 min
- Facilitated by WH Coach
  - Group discussions
  - Viewing of pre-recorded expert led videos
  - Practice (mind-body strategies, physical exercises)
  - Home practice



Opportunities



### Core Elements

Environment, Resources

Education

Skills Training

Enablement

Persuasion

Incentivization

Enhance Rural Veterans'...

Capabilities

Motivations



Helpful Pain Self-Management Behaviors

Congruent with VA Whole Health Initiative

# Core Intervention Elements

Environment,  
Resources

To address physical  
and social  
opportunity and  
resource needs

Education

To address capability  
needs (e.g., knowledge  
of BPS nature of pain,  
mind-body connection,  
self-management, etc.)

Skills  
Training

To address specific  
capability needs (e.g.,  
mind-body, exercise, &  
wellbeing self-  
management skills)

Enablement

To address  
motivational needs by  
enhancing  
possibilities, reducing  
barriers

Persuasion

To address motivational  
needs by inducing +/-  
feelings with  
communication to  
stimulate action

Incentivization

To address  
motivational needs  
by creating an  
expectation of a  
reward

## Behavior change techniques

Workbooks, digital  
recordings; 1:1 initial  
session w/ WH Coach;  
weekly group sessions  
with other Veterans

Evidence based  
information,  
consequences,  
prompts/cues

Instructions,  
demonstrations, practice,  
feedback, graded tasks,  
behavioral experiments,  
self-monitoring, behavioral  
substitution, habit  
formation, body changes

Social support, goal  
setting (behavior),  
problem solving,  
action planning

Focus on past  
successes,  
framing/reframing

Behavioral contract, self-  
monitoring of behavior,  
feedback on behavior,  
feedback on outcome of  
behavior, social reward,  
rewarding completion

## Communication techniques

Active listening, motivational techniques

## Relational Alliance Principles

Congruence, connectedness, expectations, individualization,  
partnership, roles & responsibilities

## Trauma-Informed Principles

Safety, Choice, Collaboration, Trustworthiness, Empowerment



## Topic Videos (Education)

Evidence based information about pain, whole person (BPS) wellbeing

- Program Intro, What is Pain (BPS/Whole Person)
- Pain & Mind-Body Connection
- Pain & Kindness
- Pain & Wellbeing
- Moving with Pain
- Pain & Pacing
- Pain, Thoughts & Feelings
- Pain & Sleep
- Pain & Social Wellbeing
- Looking Forward

## Mind-Body Videos (Training)

Instructions, practice in mind-body skills, activities

- Relaxed Breathing
- Mindful Meditation
- Guided Imagery
- Progressive Muscle Relaxation
- Shifting Thoughts & Attitudes Activity
- Pleasant Activity Planning
- Set Back Planning
- Mini-Practices

## Physical Exercise Videos (Training)

Instructions, practice in exercises of core muscle groups, with emphasis on body awareness

- Postural exercises
- Strength, muscle coordination, stabilization exercises
- Stretch exercises

**\*All videos put on website AND summarized in workbook, with instructions and pictures**

## Next Steps (UG3 Milestones)

---

- Community-based relationships developed; patient, community and VA advisor panels established
- Multi-level advisor perspectives of barriers/facilitators to RAMP program implementation, including reach, perceived effectiveness, potential for adoption, implementation and maintenance (n = 35-50)
- Experimental intervention (Pilot Study)
  - 40 rural Veterans, at least 35% female, 35% racial ethnic minorities
  - 75% satisfied with RAMP program; 75% attend recommended # of sessions ( $\geq 7/12$ ); Facilitators deliver 90% of session activities 90% of time
  - >80% complete post-treatment data collection (13 weeks)

# Acknowledgements

---

**Research Team:** Co-Investigators: Robin Austin, John Ferguson, Alex Haley, Brent Leininger, Marianne Matthias, Brent Taylor, Stephanie Taylor; Consultant: Greg Serpa

**Project staff:** Ann Bangerter, Lee Cross, Emily Hagel Campbell, Mallory Mahaffey



# Questions/Comments?

Diana Burgess, PhD ([diana.burgess@va.gov](mailto:diana.burgess@va.gov))

Katie Hadlandsmyth, PhD ([katherine.hadlandsmyth@va.gov](mailto:katherine.hadlandsmyth@va.gov))

Roni Evans, DC, PhD ([evans972@umn.edu](mailto:evans972@umn.edu))

