



NIH PRAGMATIC TRIALS COLLABORATORY

Rethinking Clinical Trials®

Adapting and Implementing a Nurse Care Management Model to Care for Rural Patients With Chronic Pain (AIM-CP)

Principal Investigators

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Sponsoring Institution

University of Washington

Collaborators

- WWAMI (Washington, Wyoming, Alaska, Montana, and Idaho) region Practice and Research Network
- Mecklenburg Area Partnership for Primary Care Research in rural North Carolina

NIH Institutes Providing Funding or Oversight

[National Institute of Nursing Research \(NINR\)](#)

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ClinicalTrials.gov Identifier

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ABSTRACT

People living in rural communities experience higher rates of chronic pain and poorer health outcomes because of pain. The 46 million Americans who live in rural areas frequently lack access to evidence-based, nonpharmacologic treatments for chronic pain. A critical need exists to implement effective, comprehensive programs for pain management that include nonpharmacologic treatment options. Nurse care management (NCM) has been used successfully to enhance care for individuals with other chronic conditions or at high risk of complications. Using a type 1 hybrid effectiveness-implementation design, the AIM-CP study team will adapt, pilot, and implement an NCM model that includes care coordination, cognitive behavioral therapy (CBT), and referral to a remotely delivered exercise program for rural patients with chronic pain. Each partnering healthcare system will identify appropriate healthcare professionals to be trained as care managers. For the CBT component, care managers will be trained to engage patients in a remotely delivered CBT program. For exercise, the study will offer the remotely delivered Enhance Fitness program, an evidence-based, 16-week program that includes aerobic and strength training exercise. In the planning phase, the study team will engage patients, clinicians, and care managers from 2 healthcare systems serving rural patients in a learning collaborative to pilot the NCM model. The study team will also adapt infrastructure and workflows to implement the intervention and engage the partnering healthcare systems in developing relationships with community partners and identifying care managers. In the implementation phase, the study team will conduct a randomized controlled trial of the adapted NCM model vs usual care for rural-dwelling patients with chronic pain. The research partners include 6 healthcare systems from 2 practice-based research networks: the WWAMI (Washington, Wyoming, Alaska, Montana, and Idaho) region Practice and Research Network and the Mecklenburg Area Partnership for Primary Care Research in rural North Carolina. The primary outcome is pain interference as measured by the Pain, Enjoyment of Life and General Activity (PEG) scale. Secondary outcomes include physical function, sleep, pain catastrophizing, depression, anxiety, treatment satisfaction, substance use disorder, pain medication use/dosage including opioids, and healthcare utilization. The study team will explore whether disparities exist by examining heterogeneity in treatment effect via subgroup analyses by age, gender, race/ethnicity, and health insurance. They will use the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework to assess implementation outcomes and qualitative interviews conducted with a subset of patients to evaluate experiences with the intervention. If successful, AIM-CP will have a transformative effect on chronic pain management in rural areas by expanding access to evidence-based, nonpharmacologic treatments through an innovative NCM model.

WHAT WE'VE LEARNED SO FAR

Challenge	Solution
Shortage of nurses in rural areas	Flexibility in working with local primary care systems, allowing them to select which healthcare providers will deliver the intervention
Lack of access to evidence-based exercise programs in rural areas	Helping rural healthcare systems connect to exercise providers in nonrural areas, and engaging a variety of exercise providers to develop referral pathways

“The biggest advice I have for investigators planning a pragmatic trial is to listen to and talk with people at the ground level. Talk with practices, talk with community organizations, talk with patients from the very beginning. Be flexible and think about what core elements you want to retain in your intervention and what things you can change to adapt to the needs of the community.” — Dr. Sebastian Tong

SELECTED PUBLICATIONS & PRESENTATIONS

- Video Interview: [NIH HEAL Initiative Turns Attention to Pragmatic Trials in Rural Communities \(2024\)](#)
- Presentation: [Presentation to the NIH Collaboratory Steering Committee \(2023\)](#)

[See the complete set of AIM-CP resources.](#)