



## Project Information

**Project Number:** 5U01AR067138-03

**Contact PI / Project Leader:** [HUNG, MAN](#)

**Title:** IMPROVING PATIENT-REPORTED OUTCOME MEASURES FOR ORTHOPAEDIC RESEARCH AND PRACTICE

**Awardee Organization:** UNIVERSITY OF UTAH

### Abstract Text:

DESCRIPTION (provided by applicant): The major goals in treating musculoskeletal system disorders are to decrease pain and improve function. There are many existing patient-reported outcome (PRO) instruments that measure pain and function related to various musculoskeletal conditions. Yet meaningful interpretation of these instruments is often lacking. To our knowledge, there are no published reports regarding the responsiveness and minimal clinically importance difference of the Patient-Reported Outcomes Information System (PROMIS) instruments for the orthopaedic patient population. Furthermore, measurements from different PRO instruments cannot be directly compared. Our overall goal is to provide a clear clinical interpretation of the PRO instruments used in musculoskeletal care and research. This 3-year, integrated and collaborative project has three steps: (1) Establish relationships between the legacy scale scores and the PROMIS Physical Function and Pain Interference scores to enable comparisons of results across studies; (2) Evaluate responsiveness to change of the legacy and the PROMIS instruments; and (3) Establish the minimum clinically important difference for the legacy and the PROMIS instruments for meaningful score interpretation. Our investigative team has expertise in clinical care of musculoskeletal diseases, clinical trials, quality of life assessment, instrument development, bioinformatics, and complex statistical analysis. This, in concert with exceptional resources for data collection, a high volume clinical patient source and a strong collaborative research environment, will provide an ideal environment for the proposed project.

### Public Health Relevance Statement:

PUBLIC HEALTH RELEVANCE: Musculoskeletal diseases have an enormous impact on health, affecting half of those 65 years and older. Our goal is to establish benchmarks and interpretability in patient-reported outcome measures. These can then be used to evaluate clinical treatment alternatives and help clinicians inform patients of outcomes after treatment.

### NIH Spending Category:

Clinical Research; Pain Research

### Project Terms:

Activities of Daily Living; Address; Affect; Aftercare; Area; Assessment tool; Benchmarking; Bioinformatics; Caring; Clinical; clinical care; Clinical Treatment; Clinical Trials; comparative effectiveness; Complex; computerized; Data Collection; Device or Instrument Development; disability; Disease; Environment; Goals; Health; human old age (65+); improved; improved functioning; indexing; Information Systems; instrument; Leisure Activities; Longitudinal Studies; Measurement; Measures; Musculoskeletal; Musculoskeletal Diseases; Musculoskeletal System; Orthopedics; Outcome Measure; Pain; Pain interference; Patient Outcomes Assessments; patient population; Patient-Focused Outcomes; Patients; Performance; Physical Function; Property; prospective; Psychometrics; Publishing; Quality-of-Life Assessment; Reporting; Research; Research Personnel; Resources; Source; Sports; Statistical Data Interpretation; Testing