Overview

- The Patient-Reported Outcomes Measurement Information System® (PROMIS) is a flexible set of tools designed to measure self-reported physical, mental and social health and wellbeing.
- PROMIS has been constructed and validated rigorously, with more than 50 research protocols and over 60,000 people contributing data. Development included a comprehensive literature review, focus group and psychometric testing, cognitive interviews and expert review.
- PROMIS instruments contain a fixed number of items from seven PROMIS domains: depression; anxiety; physical function; pain interference; fatigue; sleep disturbance; and ability to participate in social roles and activities. The seven domains cover the most relevant areas of self-reported health for the greatest majority of people with chronic illness.
- The PROMIS-29, a generic health-related quality of life survey, assesses each of the 7 PROMIS domains with 4 questions. The questions are ranked on a 5-point Likert Scale. There is also one 11-point rating scale for pain intensity.
- The PROMIS-29 is a publicly available, free to use, generic health related quality of life (HRQoL) measure available in multiple languages that has been validated for many diseases. More information is available at http://www.healthmeasures.net/explore-measurement-systems/promis

Evidence

- Successful management of complex conditions and comorbid conditions can benefit greatly from use of patient-reported outcomes instruments. Health-related patient-reported outcome instruments can reveal what matters to patients and track a patient’s change over time. Evidence strongly suggests that patient-reported outcome measures act as a tool to improve patient-clinician communication by enabling patients to raise issues with clinicians (Black 2013; Greenhalgh et al 2017; Williams et al 2016).
- The PROMIS patient-reported scales demonstrate excellent internal consistency and offer the ability to compare scores across conditions and to general population norms (Katz, Pedro & Michaud 2016).
**PROMIS-29**

- The PROMIS-29 allows for comparison across health conditions. For instance, the questions about the impact of pain could apply to people undergoing cancer treatment but would also be relevant for someone recovering post-surgery.
- Studies also report that PROMIS-29 is useful for specific patient populations, for example, patients with chronic musculoskeletal pain (Deyo et al 2016; primary care patients with chronic pain (Kroenke et al 2014). A study of patients who had knee-ligament reconstruction found that PROMIS physical function assessment took 1 minute and was more precise than gait-analysis, which took 10-15 minutes (Papuga et al 2014 in Baumhauer 2017).
- The PROMIS-29 can be used to determine the effectiveness of an intervention by administering the measure at the pre and post stage of treatment or care. PROMIS scores prior to surgery can predict the likelihood of patients obtaining a clinically meaningful result from foot and ankle surgery (Ho et al 2014 in Baumhauer 2017).
- The PROMIS-29 can be used to determine QALYs (quality adjusted life years) (Craig et al 2014).

**Scoring**

- The PROMIS-29 is simple to administer, score and interpret. Norm-based scores have been calculated for each domain on the PROMIS measures, so that a score of 50 represents the mean or average of the reference population. A score of 60 means that the person is one standard deviation above the reference population (standard deviation = 10).
- High scores represent more of the domain being measured. Thus, on symptom-oriented domains of PROMIS-29 (anxiety, depression, fatigue, pain interference, and sleep disturbance), higher scores represent worse symptomatology. On the function-oriented domains (physical functioning and social role) higher scores represent better functioning. For example, a high sleep disturbance score indicates high levels of sleep disturbance; a high physical functioning score indicates better physical function.
- Differences in scores according to modes of administration have been found, with persons completing the online version generally showing better scores than those who completed the paper version, noting that people using paper were older, had less formal education and seemed to be in poorer health (Katz, Pedro & Michaud 2016).
References


