PROMIS+HEART FAILURE PROFILES
MEASURE DIFFERENCES

A brief guide to differences between the PROMIS®+Heart Failure (PROMIS+HF) profiles:

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ABOUT PROMIS+HEART FAILURE PROFILES

The PROMIS+Heart Failure-27 Profile v1.0 (PROMIS+HF-27) and PROMIS+Heart Failure-10 Profile v1.0 (PROMIS+HF-10) instruments were created from the PROMIS+HF long-form Profile measure (PROMIS+HF Profile), which was published in Circulation: Heart Failure in 2019.1 The PROMIS+HF profiles are condition-specific measures that combine existing, universal PROMIS items with new HF-specific items. The long-form PROMIS+HF Profile has 86-items across 18 domains of physical, mental, and social health. Clinicians or researchers can select the items or domains from the PROMIS+HF Profile measure that are relevant to their specific clinical or research use case. To facilitate use of the PROMIS+HF Profile measure in research studies and routine care, the PROMIS+HF-27 and the PROMIS+HF-10 were developed. Additional details on measure development and validation are available in ESC: Heart Failure.2

The PROMIS+HF-27 has 27 items that span physical, mental, and social health with a total of 13 domains.3 The PROMIS+HF-10 has 10 items than span a total of 9 domains, and all included items are a subset of the PROMIS+HF-27. The majority of items evaluate health over the past 7 days. No timeframe is specified for physical function, ability to participate in social roles and activities, and independence items. The PROMIS+HF-27 and PROMIS+HF-10 each generate summary scores for physical health, mental health, social health, and overall health.

The PROMIS+HF-27 Profile was developed primarily of research purposes, and the PROMIS+HF-10 Profile was developed primarily for clinical purposes. The PROMIS+HF profiles are intended to be used with individuals with heart failure. The measures are intended for use with adults (ages 18+).

3 For scoring purposes, the symptoms and pain interference domains were combined into domain as described in the scoring manual.

INTRODUCTION TO ASSESSMENT OPTIONS

The PROMIS+HF-27 and PROMIS+HF-10 Profiles can be administered using paper forms or within REDCap (measures are included in the REDCap Shared Library). When administering, instruct participants to answer all the items (i.e., questions or statements) presented, as some domain summary scores may not be calculated with missing data.
DIFFERENCES BETWEEN PROFILES

The PROMIS+HF-27 has 27 items that span physical, mental, and social health with a total of 13 domains. The PROMIS+HF-10 has 10 items that span a total of 9 domains, and all included items are a subset of the PROMIS+HF-27. The PROMIS+HF-27 was developed primarily for research purposes, and the PROMIS+HF-10 was developed primarily for clinical purposes.

Selecting a Profile
In selecting between profiles, the differences include length, domains, and specific items. The overall summary scores between the two profiles are highly correlated. If you are working with a sample in which you want the most precise measure, select the longer PROMIS-HF-27. For clinical purposes or selected research purposes when minimizing respondent burden is of high importance, then the PROMIS+HF-10 may be the preferable option.

SCORES

Summary Scores
The PROMIS+HF-27 and PROMIS+HF-10 instruments produce four summary scores: physical health summary, mental health summary, social health summary, and overall health summary. These summary scores are on a scale of 0 to 100 with a high score representing better health. Scoring of the summary scores can be performed by using the scoring equations provided in the Scoring Manual. Scoring for the summary scores is also available for REDCap and SAS.

Domain T-Scores
PROMIS T-Scores can be calculated for selected domains. For the PROMIS+HF-27, T-scores can be calculated for Dyspnea Severity, Fatigue, Physical Function, Sleep Disturbance, Pain Interference, Depression, Cognitive Function, and Ability to Participate in Social Roles and Activities. For the PROMIS+HF-10, T-scores can be calculated for Dyspnea Severity, Fatigue, Physical Function, Sleep Disturbance, Depression, and Ability to Participate in Social Roles and Activities. T-scores can be generated using the HealthMeasures Scoring Service (https://www.assessmentcenter.net/ac_scoringservice) or using the instructions and tables in the Scoring Manual.

For PROMIS T-scores, a score of 50 is the average for the United States general population with a standard deviation of 10 because calibration testing was performed on a large sample of the general population. You can read more about the calibration and centering samples on HealthMeasures.net (http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis). The T-score is provided with an error term (Standard Error or SE). The Standard Error is a statistical measure of variance and represents the "margin of error" for the T-score.

Important: A higher PROMIS T-score represents more of the concept being measured. For positively-worded concepts like Physical Function, Cognitive Function, and Ability to Participate in Social Roles and Activities, a T-score of 60 is one SD better than average. By comparison, a Physical Function T-score of 40 is one SD worse than average. For negatively-worded concepts like Dyspnea Severity, Fatigue, Sleep Disturbance, and Depression, a T-score of 60 is one SD worse than average.
Standard Error (SE): PROMIS scores include a standard error (SE). The standard error is a measure of the variability for a given T-score across hypothetical repeated measurements. The standard error can be used to construct confidence intervals around a T-score. A 95% confidence interval is common. A 95% confidence interval means there is a 95% probability that the true T-score is within this range. The formula for a 95% confidence interval is (T-score + (1.96*SE)). For example, if T=52 and SE=2, the lower boundary of the confidence interval is (52 − (1.96*2) = 48 and the upper boundary is (52 + (1.96*2) = 56.

STATISTICAL CHARACTERISTICS

Detailed statistical characteristics of the PROMIS+HF-27 and PROMIS+HF-10, including reliability and validity statistics can be found in Ahmad et al, 2022.


PREVIEW OF SAMPLE ITEM

Figure 1 is an excerpt from the paper version of the v1.0 PROMIS+HF-27.

FREQUENTLY ASKED QUESTIONS (FAQ)

Q: I am interested in learning more. Where can I do that?
Review the HealthMeasures website at www.healthmeasures.net.

Q: Are PROMIS instruments available in other languages?
Yes! Look at the HealthMeasures website (http://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/available-translations) for current information on PROMIS translations.