POSITIVE OUTLOOK
SCORING MANUAL

A brief guide to scoring the PROMIS® Positive Outlook instruments:

ADULT
PROMIS Bank v1.0 - Positive Outlook PROMIS Short Form v1.0 - Positive Outlook 6a

ABOUT POSITIVE OUTLOOK

The Positive Outlook measures (computer adaptive test, short form) assess positive views of oneself, satisfaction with current life, and expectations for the future. The items capture self-worth, self-confidence, and levels of satisfaction with life circumstances as well as optimistic views of the future. The item bank includes 27 items. Six of these are included in a short form. These measures were developed as part of a family of instruments that assess non-specific factors that may contribute to treatment outcomes (Healing Encounters and Attitudes List; HEAL). The HEAL measures are designed to generalize to any treatment that includes contact with a healthcare provider and are relevant to a wide variety of health conditions.

COMPARING SCORES ACROSS VERSIONS

Some PROMIS domains have multiple versions of instruments (i.e., v1.0, v1.1, v2.0, v3.0). Generally, **it is recommended that you use the most recent version available which can be identified as the instrument with the highest version number.** In most cases, an instrument that has a decimal increase (v1.0 to v1.1) retains the same item-level parameters as well as instrument reliability and validity. In cases where a version number increases by a whole number (e.g., v1.0 to v2.0), the changes to the instrument are more substantial.

Adult

There is only one version (v1.0) of the Positive Outlook instruments.

SCORING THE INSTRUMENT

Short Forms: PROMIS instruments are scored using item-level calibrations. This means that the most accurate way to score a PROMIS instrument is to use the HealthMeasures Scoring Service (https://www.assessmentcenter.net/ac_scoringservice) or a data collection tool that automatically calculates scores (e.g., REDCap auto-score). This method of scoring uses responses to each item for each participant. We refer to this as “response pattern scoring.” Because response pattern scoring is more accurate than the use of raw score/scale score look up tables included in this manual, it is preferred. Response pattern scoring is especially useful when there is missing data (i.e., a respondent skipped an item), different groups of participants responded to different items, or you have created a new short form using a subset of questions from a PROMIS item bank.

To use the scoring table in this manual, calculate a summed score. Each question has five response options ranging in value from one to five. To find the total raw summed score for a short form with all questions answered, sum the values of the response to each question. For example, for the v1.0 adult 6-item form, the lowest possible raw score is 6; the highest possible raw score is 30 (see the short form scoring table in Appendix 1). **All questions must be answered in order to produce a valid score using the scoring tables**. If a respondent has skipped a question, use the HealthMeasures Scoring Service (https://www.assessmentcenter.net/ac_scoringservice) to generate a final score.

With the total raw summed score for a measure, locate the applicable score conversion table in Appendix 1 and use this table to translate the total raw score into a T-score for each participant. The T-score rescales the raw score into a standardized score with a mean of 50 and a standard deviation (SD) of 10. Therefore, a person with a T-score of 40 is one SD below the mean. For example, for the adult PROMIS Positive Outlook 6a short form v1.0, a raw score of 10 converts to a T-score of 31.4 with a standard error (SE) of 2.8 (see scoring table for the 6a v2.0 Short Form in Appendix 1).

CAT: A minimum number of items (i.e., 4) must be answered in order to receive a score for the Positive Outlook CAT. The response to the first item will guide the system's choice of the next item for the participant. The participant's response to the second item will dictate the selection of the following question, and so on. As additional items are administered, the potential for error is reduced and confidence in the respondent's score increases. The CAT will continue until either the standard error drops below a specified level (on the T-score metric 3.0), or the participant has answered the maximum number of questions (8), whichever occurs first.

The PROMIS Bank v1.0 – Positive Outlook measure is administered by default as a computer adaptive test using the following standard stopping rules:

- Minimum number of items administered = 4
- Stop when one of these occurs:
  - 8 items are administered OR
  - Standard error is below 0.3 on the theta metric (3.0 on the T-score metric) OR
  - Standard error changes by less than 0.01 on the theta metric (0.1 on the T-score metric)

SCORES

For most PROMIS instruments, 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. However, the Positive Outlook measures were developed in a clinical sample of individuals who reported receiving care from a healthcare provider. A mean of 50 reflects the average for that sample. 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 Positive Outlook, a T-score of 60 is one SD more than average. By comparison, a Positive Outlook T-score of 40 is one SD less than average.

Standard Error (SE): A PROMIS score includes a T-score and 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.

FREQUENTLY ASKED QUESTIONS (FAQ)

Q: I am interested in learning more. Where can I do that?

Review the HealthMeasures website at www.healthmeasures.net. You can also find information specifically about the HEAL measures at https://www.HealingFactors.pitt.edu.

Q: How do I handle multiple responses when administering a short form on paper?

Guidelines on how to deal with multiple responses have been established. Resolution depends on the responses noted by the research participant.

- If two or more responses are marked by the respondent, and they are next to one another, then a data entry specialist will be responsible for randomly selecting one of them to be entered and will write down on the form which answer was selected. Note: To randomly select one of two responses, the data entry specialist will flip a coin (heads - higher number will be entered; tails – lower number will be entered). To randomly select one of three (or more) responses, a table of random numbers should be used with a statistician's assistance.
- If two or more responses are marked, and they are NOT all next to one another, the response will be considered missing.

Q: What is the minimum change on a PROMIS instrument that represents a clinically meaningful difference?

To learn more about research on the meaning of a change in scores, we suggest conducting a literature review to identify the most current information. The HealthMeasures website (http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis) has additional information on interpreting scores.

APPENDIX 1 — SCORING TABLE

PROMIS Adult SF v1.0 — Positive Outlook 6a *Short Form Conversion Table*		
Raw Summed Score	**T-Score**	**SE***
6	21.3	4.6
7	25.0	3.6
8	27.5	3.2
9	29.6	2.9
10	31.4	2.8
11	33.0	2.7
12	34.5	2.7
13	36.0	2.7
14	37.4	2.7
15	38.9	2.7
16	40.3	2.7
17	41.8	2.7
18	43.3	2.8
19	44.8	2.8
20	46.4	2.8
21	48.0	2.8
22	49.6	2.8
23	51.2	2.8
24	52.9	2.8
25	54.6	2.8
26	56.5	2.9
27	58.5	3.0
28	60.9	3.3
29	63.9	3.9
30	69.3	5.6
*SE = Standard Error on T-score metric		