

PROMIS ADULT PROFILE INSTRUMENTS

SCORING MANUAL

A brief guide to scoring the PROMIS® Profile instruments for adult respondents:

PROMIS-29 Profile v1.0*
PROMIS-29 Profile v2.0*
PROMIS-29 Profile v2.1
PROMIS-43 Profile v1.0*
PROMIS-43 Profile v2.0*
PROMIS-43 Profile v2.1
PROMIS-57 Profile v1.0*
PROMIS-57 Profile v2.0*
PROMIS-57 Profile v2.1
PROMIS 29+2 Profile v2.1 (PROPr)
PROMIS Profile CAT v1.0 - 29

* = retired measure

COMPARING SCORES ACROSS INSTRUMENTS

Some PROMIS domains have multiple versions of instruments (i.e., v1.0, v1.1). Generally, it is recommended that you use the most recent version available which can be identified as the instruments with the highest version number. Instruments are changed for various reasons. 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.

All three PROMIS v2.0 profiles replaced the v1.0 Satisfaction with Participation in Social Roles short form with a v2.0 Ability to Participate in Social Roles and Activities short form. Because the social domain differs between v1.0 and v2.0, the social scores between these measures should not be compared to each other. In the PROMIS-43 and PROMIS-57, the Physical Function short form was also updated. However, the final Physical Function T-scores from v1.0 and v2.0 can be directly compared to each other. The three PROMIS v2.1 profiles have identical items to v2.0. The Physical Function item calibrations were updated to match those used in the PROMIS v2.0 Physical Function item bank. T-scores from the Physical Function short forms in v2.1 Profiles can be directly compared to T-scores from both Physical Function short forms in Profiles v2.0 and v1.0. Also, v2.1 profiles use the same pain intensity item as earlier versions.

Scores from the PROMIS Profile CAT v1.0 – 29 can be compared to scores from short-form based v2 Profiles (i.e., PROMIS-29 v2.0 and v2.1, PROMIS-43 v2.0 and v2.1, PROMIS-57 v2.0 and v2.1).

The following tables list the specific short forms that comprise the PROMIS adult profile instruments.

Short Forms in PROMIS-29 Profiles		
PROMIS-29 v1.0	PROMIS-29 v2.0	PROMIS-29 v2.1
PROMIS SF v1.0 – Physical Function 4a	PROMIS SF v1.0 – Physical Function 4a	PROMIS SF v2.0 – Physical Function 4a
PROMIS SF v1.0 – Anxiety 4a	PROMIS SF v1.0 – Anxiety 4a	PROMIS SF v1.0 – Anxiety 4a
PROMIS SF v1.0 – Depression 4a	PROMIS SF v1.0 – Depression 4a	PROMIS SF v1.0 – Depression 4a
PROMIS SF v1.0 – Fatigue 4a	PROMIS SF v1.0 – Fatigue 4a	PROMIS SF v1.0 – Fatigue 4a
PROMIS SF v1.0 – Sleep Disturbance 4a	PROMIS SF v1.0 – Sleep Disturbance 4a	PROMIS SF v1.0 – Sleep Disturbance 4a
PROMIS SF v1.0 – Satisfaction with Participation in Social Roles 4a	PROMIS SF v2.0 – Ability to Participate in Social Roles and Activities 4a	PROMIS SF v2.0 – Ability to Participate in Social Roles and Activities 4a
PROMIS SF v1.0 – Pain Interference 4a	PROMIS SF v1.0 – Pain Interference 4a	PROMIS SF v1.0 – Pain Interference 4a
PROMIS Pain Intensity item (Global07)	PROMIS Pain Intensity item (Global07)	PROMIS Pain Intensity item (Global07)

Short Forms in PROMIS-43 Profiles		
PROMIS-43 v1.0	PROMIS-43 v2.0	PROMIS-43 v2.1
PROMIS SF v1.0 – Physical Function 6a	PROMIS SF v1.2 – Physical Function 6b	PROMIS SF v2.0 – Physical Function 6b
PROMIS SF v1.0 – Anxiety 6a	PROMIS SF v1.0 – Anxiety 6a	PROMIS SF v1.0 – Anxiety 6a
PROMIS SF v1.0 – Depression 6a	PROMIS SF v1.0 – Depression 6a	PROMIS SF v1.0 – Depression 6a
PROMIS SF v1.0 – Fatigue 6a	PROMIS SF v1.0 – Fatigue 6a	PROMIS SF v1.0 – Fatigue 6a
PROMIS SF v1.0 – Sleep Disturbance 6a	PROMIS SF v1.0 – Sleep Disturbance 6a	PROMIS SF v1.0 – Sleep Disturbance 6a
PROMIS SF v1.0 – Satisfaction with Participation in Social Roles 6a	PROMIS SF v2.0 – Ability to Participate in Social Roles and Activities 6a	PROMIS SF v2.0 – Ability to Participate in Social Roles and Activities 6a
PROMIS SF v1.0 – Pain Interference 6a	PROMIS SF v1.0 – Pain Interference 6a	PROMIS SF v1.0 – Pain Interference 6a
PROMIS Pain Intensity item (Global07)	PROMIS Pain Intensity item (Global07)	PROMIS Pain Intensity item (Global07)

Short Forms in PROMIS-57 Profiles		
PROMIS-57 v1.0	PROMIS-57 v2.0	PROMIS-57 v2.1
PROMIS SF v1.0 – Physical Function 8a	PROMIS SF v1.2 – Physical Function 8b	PROMIS SF v2.0 – Physical Function 8b
PROMIS SF v1.0 – Anxiety 8a	PROMIS SF v1.0 – Anxiety 8a	PROMIS SF v1.0 – Anxiety 8a
PROMIS SF v1.0 – Depression 8a	PROMIS SF v1.0 – Depression 8a	PROMIS SF v1.0 – Depression 8a
PROMIS SF v1.0 – Fatigue 8a	PROMIS SF v1.0 – Fatigue 8a	PROMIS SF v1.0 – Fatigue 8a
PROMIS SF v1.0 – Sleep Disturbance 8a	PROMIS SF v1.0 – Sleep Disturbance 8a	PROMIS SF v1.0 – Sleep Disturbance 8a
PROMIS SF v1.0 – Satisfaction with Participation in Social Roles 8a	PROMIS SF v2.0 – Ability to Participate in Social Roles and Activities 8a	PROMIS SF v2.0 – Ability to Participate in Social Roles and Activities 8a
PROMIS SF v1.0 – Pain Interference 8a	PROMIS SF v1.0 – Pain Interference 8a	PROMIS SF v1.0 – Pain Interference 8a
PROMIS Pain Intensity item (Global07)	PROMIS Pain Intensity item (Global07)	PROMIS Pain Intensity item (Global07)

PROMIS-29+2 Profile v2.1 (PROPr)

The PROMIS-29+2 Profile v2.1 (PROPr) is used to calculate a preference score (PROMIS Preference, PROPr). Preference-based scores provide an overall summary of health-related quality of life on a common metric. Preference-based scores summarize multiple domains on a metric ranging from 0 (as bad as dead) to 1 (perfect or ideal health). Scores can be used in comparisons across groups and for cost-utility analyses. The profile includes all items in the PROMIS-29 Profile v2.1 plus two Cognitive Function Abilities items. T-scores from the measure can be used to calculate a preference-based score.

PROMIS Profile CAT v1.0 – 29

The PROMIS Profile CAT v1.0 – 29 is comprised of 7 computer adaptive tests and one pain intensity item.

PROMIS Profile CAT v1.0 – 29
PROMIS Bank/CAT v2.0 – Physical Function
PROMIS Bank/CAT v1.0 – Anxiety
PROMIS Bank/CAT v1.0 – Depression
PROMIS Bank/CAT v1.0 – Fatigue
PROMIS Bank/CAT v1.0 – Sleep Disturbance
PROMIS Bank/CAT v2.0 – Ability to Participate in Social Roles and Activities
PROMIS Bank/CAT v1.1 – Pain Interference
PROMIS Pain Intensity item (Global07)

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_scoringervice) or a data collection tool that automatically calculates scores (e.g., Assessment Center, REDCap auto-score). This method of scoring uses responses to each item for each participant. We refer to this as “response pattern scoring.” Response pattern scoring is preferred because it is more accurate than the use of raw score/scale score look up tables included in this manual. 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 questionnaire using a subset of questions from a PROMIS item bank.

Each question usually has five response options ranging in value from one to five. To find the total raw score for a short form with all questions answered, sum the values of the response to each question. For example, for the adult 8-item form, the lowest possible raw score is 8; the highest possible raw score is 40 (see all short form scoring tables in Appendix 1). **All questions must be answered in order to produce a valid score using the scoring tables.** If a participant has skipped a question, use the HealthMeasures Scoring Service (https://www.assessmentcenter.net/ac_scoringervice) to generate a final score.

Identify the specific short forms that are included in the profile measure to be scored. Then, locate the applicable score conversion tables in Appendix 1. Use each table to translate the total raw score into a T-score for each participant for each domain. The T-score rescales the raw score into a standardized T-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, in the PROMIS-29 Adult Profile 2.1 instrument, an Anxiety raw score of 10 converts to a T-score of 59.5 with a standard error (SE) of 2.6 (see scoring table for the 4a short form v2.1 in Appendix 1).

Scoring PROMIS Profile CAT v1.0 - 29

The PROMIS Profile CAT is automatically scored within its administration platform. Hand scoring using this manual is not possible.

Calculating a PROPr Score

The PROMIS-Preference (PROPr) score is a generic, societal, preference-based summary score. It is based on PROMIS scores for Cognitive Function Abilities, Depression, Fatigue, Pain Interference, Physical Function, Sleep Disturbance, and Ability to Participate in Social Roles and Activities. You can calculate a PROPr score with the PROMIS-29+2 Profile v2.1 (PROPr) measure or T-scores from PROMIS CATs for the same domains. The Assessment Center API automatically generates a PROPr score. If you are using any other system including paper, you will need to calculate a PROPr score by following these instructions.

To calculate a PROPr Score, first calculate PROMIS T-scores for all domains. We encourage using the HealthMeasures Scoring Service to calculate T-scores, theta, and standard errors for each domain in the PROMIS-29+2 Profile v2.1 (PROPr). If you are unable to use the HealthMeasures Scoring Service, use the PROMIS-29 v2.1 Profile scoring tables plus the PROMIS Short Form v2.0 – Cognitive Function Abilities 2a table in the appendix.

You will then need to convert T-scores to theta values. $\text{Theta} = (T - 50)/10$. For example, a $T=65$ has $\text{theta}=1.5$. Finally, apply SAS or R code using theta values to calculate a PROPr score. The code is named “MAUT” (Multi-Attribute Utility Theory) and is available at <https://github.com/janelhanmer/PROPr>. If you are not familiar with SAS or R, we recommend working with a statistician or data manager with this expertise.

Dewitt, B., Feeny, D., Fischhoff, B., Cella, D., Hays, R.D., Hess, R., . . . Hanmer, J. (2018). Estimation of a Preference-Based Summary Score for the Patient-Reported Outcomes Measurement Information System: The PROMIS®-Preference (PROPr) Scoring System. Medical Decision Making. <https://www.ncbi.nlm.nih.gov/pubmed/29944456>

Calculating an HUI-3 Score

Hays and colleagues (2016) published an equation for estimating a Health Utility Index Mark 3 from the PROMIS-29 v2.0 Profile measure.

Hays RD, Revicki DA, Feeny D et al. Pharmacoeconomics (2016) 34: 1015. <https://doi.org/10.1007/s40273-016-0408-x>

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. 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 negatively-worded concepts like Anxiety, a T-score of 60 is one SD worse than average. By comparison, an Anxiety T-score of 40 is one SD better than average. Higher scores for Depression, Fatigue, Sleep Disturbance, and Pain Interference indicate worse health than average. However, for positively-worded concepts like Physical Function and Ability

to Participate in Social Roles and Activities, a T-score of 60 is one SD better than average while a T-score of 40 is one SD worse 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 $(T\text{-score} \pm (1.96 * SE))$. 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 (FAQs)

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

Review the HealthMeasures website at www.healthmeasures.net.

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-SCORING TABLES - PROMIS 29 – PROFILE v1.0

Adult v1.0 - Physical Function 4a			Adult v1.0 - Anxiety 4a			Adult v1.0 - Depression 4a		
<i>Short Form Conversion Table</i>			<i>Short Form Conversion Table</i>			<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*	Raw Summed Score	T-score	SE*	Raw Summed Score	T-score	SE*
4	22.9	3.9	4	40.3	6.1	4	41.0	6.2
5	26.9	2.7	5	48.0	3.6	5	49.0	3.2
6	29.1	2.4	6	51.2	3.1	6	51.8	2.7
7	30.7	2.2	7	53.7	2.8	7	53.9	2.4
8	32.1	2.2	8	55.8	2.7	8	55.7	2.3
9	33.3	2.1	9	57.7	2.6	9	57.3	2.3
10	34.4	2.1	10	59.5	2.6	10	58.9	2.3
11	35.6	2.1	11	61.4	2.6	11	60.5	2.3
12	36.7	2.1	12	63.4	2.6	12	62.2	2.3
13	37.9	2.2	13	65.3	2.7	13	63.9	2.3
14	39.1	2.2	14	67.3	2.7	14	65.7	2.3
15	40.4	2.2	15	69.3	2.7	15	67.5	2.3
16	41.8	2.3	16	71.2	2.7	16	69.4	2.3
17	43.4	2.4	17	73.3	2.7	17	71.2	2.4
18	45.3	2.6	18	75.4	2.7	18	73.3	2.4
19	48.0	3.1	19	77.9	2.9	19	75.7	2.6
20	56.9	6.7	20	81.6	3.7	20	79.4	3.6
*SE = Standard Error on T-score metric			*SE = Standard Error on T-score metric			*SE = Standard Error on T-score metric		
Adult v1.0 - Fatigue 4a			Adult v1.0 - Sleep Disturbance 4a			Adult v1.0 – Satisfaction with Participation in Social Roles 4a		
<i>Short Form Conversion Table</i>			<i>Short Form Conversion Table</i>			<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*	Raw Summed Score	T-score	SE*	Raw Summed Score	T-score	SE*
4	33.7	4.9	4	32.0	5.2	4	29.0	4.2
5	39.7	3.1	5	37.5	4.0	5	33.6	2.5
6	43.1	2.7	6	41.1	3.7	6	35.7	2.2
7	46.0	2.6	7	43.8	3.5	7	37.3	2.1
8	48.6	2.5	8	46.2	3.5	8	38.8	2.1
9	51.0	2.5	9	48.4	3.4	9	40.3	2.1
10	53.1	2.4	10	50.5	3.4	10	41.7	2.1
11	55.1	2.4	11	52.4	3.4	11	43.2	2.1
12	57.0	2.3	12	54.3	3.4	12	44.8	2.1
13	58.8	2.3	13	56.1	3.4	13	46.4	2.1
14	60.7	2.3	14	57.9	3.3	14	48.1	2.1
15	62.7	2.4	15	59.8	3.3	15	49.8	2.2
16	64.6	2.4	16	61.7	3.3	16	51.6	2.2
17	66.7	2.4	17	63.8	3.4	17	53.5	2.2
18	69.0	2.5	18	66.0	3.4	18	55.6	2.3
19	71.6	2.7	19	68.8	3.7	19	58.1	2.7
20	75.8	3.9	20	73.3	4.6	20	64.1	5.1
*SE = Standard Error on T-score metric			*SE = Standard Error on T-score metric			*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	41.6	6.1
5	49.6	2.5
6	52.0	2.0
7	53.9	1.9
8	55.6	1.9
9	57.1	1.9
10	58.5	1.8
11	59.9	1.8
12	61.2	1.8
13	62.5	1.8
14	63.8	1.8
15	65.2	1.8
16	66.6	1.8
17	68.0	1.8
18	69.7	1.9
19	71.6	2.1
20	75.6	3.7
*SE = Standard Error on T-score metric		

PROMIS 43 – PROFILE v1.0

Adult v1.0 - Physical Function 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	20.8	3.6
7	24.4	2.4
8	26.5	2.2
9	28.0	2.0
10	29.4	1.9
11	30.5	1.9
12	31.6	1.8
13	32.5	1.8
14	33.5	1.8
15	34.3	1.8
16	35.2	1.8
17	36.0	1.8
18	36.9	1.8
19	37.7	1.8
20	38.6	1.8
21	39.4	1.8
22	40.3	1.8
23	41.3	1.8
24	42.2	1.8
25	43.3	1.9
26	44.4	2.0
27	45.7	2.1
28	47.4	2.4
29	49.7	2.9
30	57.8	6.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	39.1	5.9
7	45.9	3.4
8	48.8	2.9
9	50.9	2.6
10	52.7	2.4
11	54.2	2.3
12	55.6	2.2
13	56.9	2.2
14	58.2	2.2
15	59.4	2.2
16	60.7	2.2
17	62.0	2.2
18	63.3	2.2
19	64.6	2.2
20	66.0	2.2
21	67.3	2.2
22	68.6	2.2
23	70.0	2.2
24	71.3	2.2
25	72.7	2.2
26	74.1	2.2
27	75.6	2.3
28	77.4	2.4
29	79.4	2.7
30	82.7	3.5
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	38.4	5.8
7	45.2	3.4
8	48.3	2.8
9	50.4	2.4
10	52.0	2.2
11	53.4	2.1
12	54.7	2.0
13	55.9	2.0
14	57.0	1.9
15	58.2	1.9
16	59.3	2.0
17	60.5	2.0
18	61.7	2.0
19	62.9	2.0
20	64.2	2.0
21	65.5	2.0
22	66.7	2.0
23	68.0	2.0
24	69.3	2.0
25	70.6	2.0
26	72.0	2.0
27	73.4	2.0
28	75.0	2.1
29	76.9	2.4
30	80.3	3.5
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	33.4	4.9
7	39.1	2.9
8	42.0	2.4
9	44.2	2.2
10	46.1	2.1
11	47.8	2.1
12	49.4	2.1
13	50.9	2.0
14	52.4	2.0
15	53.7	2.0
16	55.1	2.0
17	56.3	1.9
18	57.5	1.9
19	58.8	1.9
20	60.0	1.9
21	61.2	1.9
22	62.4	1.9
23	63.7	2.0
24	65.0	2.0
25	66.4	2.0
26	67.8	2.0
27	69.3	2.0
28	71.0	2.1
29	73.0	2.5
30	76.8	3.8
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	31.7	5.1
7	36.9	3.9
8	40.1	3.5
9	42.5	3.3
10	44.6	3.2
11	46.4	3.1
12	48.0	3.0
13	49.5	3.0
14	50.9	3.0
15	52.3	2.9
16	53.6	2.9
17	54.8	2.9
18	56.1	2.9
19	57.3	2.9
20	58.5	2.9
21	59.7	2.9
22	61.0	2.9
23	62.3	2.9
24	63.6	2.9
25	65.0	2.9
26	66.5	3.0
27	68.1	3.1
28	70.0	3.3
29	72.4	3.6
30	76.1	4.4
*SE = Standard Error on T-score metric		

Adult v1.0 – Satisfaction with Participation in Social Roles 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	26.9	4.1
7	31.0	2.6
8	32.9	2.3
9	34.4	2.1
10	35.7	2.0
11	36.8	1.9
12	37.9	1.9
13	39.0	1.9
14	40.1	1.9
15	41.2	1.9
16	42.3	1.9
17	43.4	2.0
18	44.6	2.0
19	45.8	1.9
20	47.0	1.9
21	48.2	1.9
22	49.4	1.9
23	50.5	1.9
24	51.7	1.9
25	53.0	1.9
26	54.3	2.0
27	55.7	2.1
28	57.4	2.3
29	59.6	2.8
30	65.1	5.0
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	41.1	6.0
7	48.6	2.4
8	50.7	1.8
9	52.2	1.6
10	53.4	1.6
11	54.5	1.6
12	55.6	1.5
13	56.6	1.5
14	57.6	1.5
15	58.6	1.5
16	59.5	1.5
17	60.4	1.4
18	61.2	1.4
19	62.1	1.4
20	63.0	1.5
21	63.8	1.5
22	64.8	1.5
23	65.7	1.5
24	66.7	1.5
25	67.6	1.5
26	68.7	1.5
27	69.8	1.5
28	71.0	1.6
29	72.6	2.0
30	76.3	3.6
*SE = Standard Error on T-score metric		

PROMIS 57 – PROFILE v1.0

Adult v1.0 - Physical Function 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	20.2	3.5
9	23.7	2.4
10	25.6	2.1
11	27.0	1.9
12	28.2	1.8
13	29.3	1.8
14	30.3	1.7
15	31.2	1.7
16	32.0	1.6
17	32.7	1.6
18	33.5	1.6
19	34.2	1.6
20	34.9	1.6
21	35.5	1.5
22	36.2	1.5
23	36.9	1.5
24	37.5	1.5
25	38.2	1.5
26	38.9	1.5
27	39.5	1.5
28	40.2	1.6
29	40.9	1.6
30	41.6	1.6
31	42.4	1.6
32	43.1	1.6
33	43.9	1.6
34	44.8	1.7
35	45.7	1.8
36	46.8	1.9
37	48.0	2.1
38	49.6	2.5
39	51.8	2.9
40	59.2	6.1
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	37.1	5.5
9	42.2	3.3
10	45.9	2.8
11	47.8	2.5
12	49.4	2.3
13	50.8	2.2
14	52.1	2.1
15	53.2	2.0
16	54.3	2.0
17	55.4	2.0
18	56.4	2.0
19	57.4	2.0
20	58.4	2.0
21	59.4	2.0
22	60.4	2.0
23	61.4	2.0
24	62.5	2.0
25	63.5	2.0
26	64.5	2.0
27	65.6	2.0
28	66.6	2.0
29	67.7	2.0
30	68.7	2.0
31	69.8	2.0
32	70.8	2.0
33	71.9	2.0
34	73.0	2.0
35	74.1	2.0
36	75.4	2.0
37	76.7	2.1
38	76.2	2.3
39	80.0	2.6
40	83.1	3.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	38.2	5.7
9	44.7	3.3
10	47.5	2.7
11	49.4	2.3
12	50.9	2.0
13	52.1	1.9
14	53.2	1.8
15	54.1	1.8
16	55.1	1.7
17	55.9	1.7
18	56.8	1.7
19	57.7	1.7
20	58.5	1.7
21	59.4	1.7
22	60.3	1.7
23	61.2	1.7
24	62.1	1.8
25	63.0	1.8
26	63.9	1.8
27	64.9	1.8
28	65.8	1.8
29	66.8	1.8
30	67.7	1.8
31	68.7	1.8
32	69.7	1.8
33	70.7	1.8
34	71.7	1.8
35	72.8	1.8
36	73.9	1.8
37	75.0	1.9
38	76.4	2.0
39	78.2	2.4
40	81.3	3.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	33.1	4.8
9	38.5	2.7
10	41.0	2.2
11	42.8	2.0
12	44.3	1.9
13	45.6	1.8
14	46.9	1.8
15	48.1	1.8
16	49.2	1.8
17	50.4	1.8
18	51.5	1.7
19	52.5	1.7
20	53.6	1.7
21	54.6	1.7
22	55.6	1.7
23	56.6	1.7
24	57.5	1.7
25	58.5	1.7
26	59.4	1.7
27	60.4	1.7
28	61.3	1.7
29	62.3	1.7
30	63.3	1.7
31	64.3	1.7
32	65.3	1.7
33	66.4	1.7
34	67.5	1.7
35	68.6	1.7
36	69.8	1.8
37	71.0	1.8
38	72.4	2.0
39	74.2	2.4
40	77.8	3.7
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	30.5	4.9
9	35.3	3.7
10	38.1	3.3
11	40.4	3.1
12	42.2	3.0
13	43.9	2.9
14	45.3	2.8
15	46.7	2.7
16	47.9	2.7
17	49.1	2.6
18	50.2	2.6
19	51.3	2.6
20	52.4	2.6
21	53.4	2.6
22	54.3	2.5
23	55.3	2.5
24	56.2	2.5
25	57.2	2.5
26	58.1	2.5
27	59.1	2.5
28	60.0	2.5
29	61.0	2.5
30	62.0	2.6
31	63.0	2.6
32	64.0	2.6
33	65.1	2.6
34	66.2	2.7
35	67.4	2.8
36	68.7	2.9
37	70.2	3.0
38	72.0	3.2
39	74.1	3.5
40	77.6	4.3
*SE = Standard Error on T-score metric		

Adult v1.0 – Satisfaction with Participation in Social Roles 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	26.2	4.0
9	30.0	2.6
10	31.7	2.3
11	33.1	2.0
12	34.2	1.9
13	35.2	1.8
14	36.1	1.7
15	36.9	1.7
16	37.7	1.7
17	38.5	1.7
18	39.4	1.7
19	40.2	1.7
20	41.0	1.7
21	41.8	1.7
22	42.7	1.7
23	43.5	1.8
24	44.4	1.8
25	45.3	1.7
26	46.2	1.7
27	47.1	1.7
28	47.9	1.7
29	48.8	1.7
30	49.7	1.7
31	50.6	1.7
32	51.6	1.7
33	52.5	1.7
34	53.4	1.7
35	54.4	1.8
36	55.5	1.8
37	56.8	2.0
38	58.3	2.2
39	60.4	2.8
40	65.6	4.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	40.7	5.9
9	47.9	2.4
10	49.9	1.8
11	51.2	1.5
12	52.3	1.4
13	53.2	1.4
14	54.1	1.4
15	55.0	1.4
16	55.8	1.4
17	56.6	1.4
18	57.4	1.3
19	58.1	1.3
20	58.8	1.3
21	59.5	1.3
22	60.2	1.3
23	60.8	1.3
24	61.5	1.3
25	62.1	1.3
26	62.8	1.3
27	63.5	1.3
28	64.1	1.3
29	64.8	1.3
30	65.5	1.3
31	66.2	1.3
32	66.9	1.3
33	67.7	1.3
34	68.4	1.3
35	69.2	1.3
36	70.1	1.4
37	71.0	1.4
38	72.1	1.6
39	73.5	2.0
40	77.0	3.5
*SE = Standard Error on T-score metric		

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Adult v1.0 - Physical Function 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	22.9	3.9
5	26.9	2.7
6	29.1	2.4
7	30.7	2.2
8	32.1	2.2
9	33.3	2.1
10	34.4	2.1
11	35.6	2.1
12	36.7	2.1
13	37.9	2.2
14	39.1	2.2
15	40.4	2.2
16	41.8	2.3
17	43.4	2.4
18	45.3	2.6
19	48.0	3.1
20	56.9	6.7
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	40.3	6.1
5	48.0	3.6
6	51.2	3.1
7	53.7	2.8
8	55.8	2.7
9	57.7	2.6
10	59.5	2.6
11	61.4	2.6
12	63.4	2.6
13	65.3	2.7
14	67.3	2.7
15	69.3	2.7
16	71.2	2.7
17	73.3	2.7
18	75.4	2.7
19	77.9	2.9
20	81.6	3.7
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	41.0	6.2
5	49.0	3.2
6	51.8	2.7
7	53.9	2.4
8	55.7	2.3
9	57.3	2.3
10	58.9	2.3
11	60.5	2.3
12	62.2	2.3
13	63.9	2.3
14	65.7	2.3
15	67.5	2.3
16	69.4	2.3
17	71.2	2.4
18	73.3	2.4
19	75.7	2.6
20	79.4	3.6
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	33.7	4.9
5	39.7	3.1
6	43.1	2.7
7	46.0	2.6
8	48.6	2.5
9	51.0	2.5
10	53.1	2.4
11	55.1	2.4
12	57.0	2.3
13	58.8	2.3
14	60.7	2.3
15	62.7	2.4
16	64.6	2.4
17	66.7	2.4
18	69.0	2.5
19	71.6	2.7
20	75.8	3.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	32.0	5.2
5	37.5	4.0
6	41.1	3.7
7	43.8	3.5
8	46.2	3.5
9	48.4	3.4
10	50.5	3.4
11	52.4	3.4
12	54.3	3.4
13	56.1	3.4
14	57.9	3.3
15	59.8	3.3
16	61.7	3.3
17	63.8	3.4
18	66.0	3.4
19	68.8	3.7
20	73.3	4.6
*SE = Standard Error on T-score metric		

Adult v2.0 – Ability to Participate in Social Roles and Activities 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	27.5	4.1
5	31.8	2.5
6	34.0	2.3
7	35.7	2.2
8	37.3	2.1
9	38.8	2.2
10	40.5	2.3
11	42.3	2.3
12	44.2	2.3
13	46.2	2.3
14	48.1	2.2
15	50.0	2.2
16	51.9	2.2
17	53.7	2.3
18	55.8	2.3
19	58.3	2.7
20	64.2	5.1
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	41.6	6.1
5	49.6	2.5
6	52.0	2.0
7	53.9	1.9
8	55.6	1.9
9	57.1	1.9
10	58.5	1.8
11	59.9	1.8
12	61.2	1.8
13	62.5	1.8
14	63.8	1.8
15	65.2	1.8
16	66.6	1.8
17	68.0	1.8
18	69.7	1.9
19	71.6	2.1
20	75.6	3.7
*SE = Standard Error on T-score metric		

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Adult v1.2 - Physical Function 6b		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	21.6	3.6
7	25.4	2.6
8	27.5	2.3
9	29.1	2.1
10	30.4	2.0
11	31.5	1.9
12	32.5	1.9
13	33.4	1.8
14	34.3	1.8
15	35.1	1.8
16	36.0	1.8
17	36.8	1.8
18	37.6	1.8
19	38.5	1.8
20	39.3	1.8
21	40.2	1.8
22	41.1	1.8
23	42.1	1.8
24	43.1	1.9
25	44.2	1.9
26	45.4	2.0
27	46.8	2.2
28	48.7	2.6
29	50.9	2.9
30	58.7	6.2
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	39.1	5.9
7	45.9	3.4
8	48.8	2.9
9	50.9	2.6
10	52.7	2.4
11	54.2	2.3
12	55.6	2.2
13	56.9	2.2
14	58.2	2.2
15	59.4	2.2
16	60.7	2.2
17	62.0	2.2
18	63.3	2.2
19	64.6	2.2
20	66.0	2.2
21	67.3	2.2
22	68.6	2.2
23	70.0	2.2
24	71.3	2.2
25	72.7	2.2
26	74.1	2.2
27	75.6	2.3
28	77.4	2.4
29	79.4	2.7
30	82.7	3.5
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	38.4	5.8
7	45.2	3.4
8	48.3	2.8
9	50.4	2.4
10	52.0	2.2
11	53.4	2.1
12	54.7	2.0
13	55.9	2.0
14	57.0	1.9
15	58.2	1.9
16	59.3	2.0
17	60.5	2.0
18	61.7	2.0
19	62.9	2.0
20	64.2	2.0
21	65.5	2.0
22	66.7	2.0
23	68.0	2.0
24	69.3	2.0
25	70.6	2.0
26	72.0	2.0
27	73.4	2.0
28	75.0	2.1
29	76.9	2.4
30	80.3	3.5
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	33.4	4.9
7	39.1	2.9
8	42.0	2.4
9	44.2	2.2
10	46.1	2.1
11	47.8	2.1
12	49.4	2.1
13	50.9	2.0
14	52.4	2.0
15	53.7	2.0
16	55.1	2.0
17	56.3	1.9
18	57.5	1.9
19	58.8	1.9
20	60.0	1.9
21	61.2	1.9
22	62.4	1.9
23	63.7	2.0
24	65.0	2.0
25	66.4	2.0
26	67.8	2.0
27	69.3	2.0
28	71.0	2.1
29	73.0	2.5
30	76.8	3.8
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	31.7	5.1
7	36.9	3.9
8	40.1	3.5
9	42.5	3.3
10	44.6	3.2
11	46.4	3.1
12	48.0	3.0
13	49.5	3.0
14	50.9	3.0
15	52.3	2.9
16	53.6	2.9
17	54.8	2.9
18	56.1	2.9
19	57.3	2.9
20	58.5	2.9
21	59.7	2.9
22	61.0	2.9
23	62.3	2.9
24	63.6	2.9
25	65.0	2.9
26	66.5	3.0
27	68.1	3.1
28	70.0	3.3
29	72.4	3.6
30	76.1	4.4
*SE = Standard Error on T-score metric		

Adult v2.0 – Ability to Participate in Social Roles and Activities 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	26.7	4.0
7	30.7	2.4
8	32.5	2.0
9	33.9	1.9
10	35.1	1.8
11	36.2	1.8
12	37.2	1.8
13	38.2	1.8
14	39.3	1.8
15	40.4	1.8
16	41.6	1.9
17	42.9	1.9
18	44.2	1.9
19	45.6	1.9
20	46.9	1.9
21	48.2	1.8
22	49.5	1.8
23	50.7	1.8
24	51.9	1.8
25	53.2	1.8
26	54.5	1.9
27	55.9	1.9
28	57.5	2.1
29	59.6	2.6
30	65.0	4.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	41.1	6.0
7	48.6	2.4
8	50.7	1.8
9	52.2	1.6
10	53.4	1.6
11	54.5	1.6
12	55.6	1.5
13	56.6	1.5
14	57.6	1.5
15	58.6	1.5
16	59.5	1.5
17	60.4	1.4
18	61.2	1.4
19	62.1	1.4
20	63.0	1.5
21	63.8	1.5
22	64.8	1.5
23	65.7	1.5
24	66.7	1.5
25	67.6	1.5
26	68.7	1.5
27	69.8	1.5
28	71.0	1.6
29	72.6	2.0
30	76.3	3.6
*SE = Standard Error on T-score metric		

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Adult v1.2 - Physical Function 8b		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	20.9	3.5
9	24.4	2.5
10	26.4	2.2
11	27.9	2.0
12	29.1	1.9
13	30.1	1.8
14	31.1	1.7
15	31.9	1.7
16	32.7	1.6
17	33.4	1.6
18	34.1	1.6
19	34.8	1.6
20	35.5	1.6
21	36.2	1.5
22	36.8	1.5
23	37.5	1.5
24	38.1	1.5
25	38.8	1.5
26	39.4	1.5
27	40.1	1.5
28	40.8	1.6
29	41.5	1.6
30	42.2	1.6
31	43.0	1.6
32	44.6	1.6
33	45.5	1.6
34	46.4	1.7
35	47.5	1.8
36	48.8	1.9
37	50.4	2.1
38	50.4	2.5
39	52.5	2.9
40	59.7	6.1
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	37.1	5.5
9	42.2	3.3
10	45.9	2.8
11	47.8	2.5
12	49.4	2.3
13	50.8	2.2
14	52.1	2.1
15	53.2	2.0
16	54.3	2.0
17	55.4	2.0
18	56.4	2.0
19	57.4	2.0
20	58.4	2.0
21	59.4	2.0
22	60.4	2.0
23	61.4	2.0
24	62.5	2.0
25	63.5	2.0
26	64.5	2.0
27	65.6	2.0
28	66.6	2.0
29	67.7	2.0
30	68.7	2.0
31	69.8	2.0
32	70.8	2.0
33	71.9	2.0
34	73.0	2.0
35	74.1	2.0
36	75.4	2.0
37	76.7	2.1
38	76.2	2.3
39	80.0	2.6
40	83.1	3.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	38.2	5.7
9	44.7	3.3
10	47.5	2.7
11	49.4	2.3
12	50.9	2.0
13	52.1	1.9
14	53.2	1.8
15	54.1	1.8
16	55.1	1.7
17	55.9	1.7
18	56.8	1.7
19	57.7	1.7
20	58.5	1.7
21	59.4	1.7
22	60.3	1.7
23	61.2	1.7
24	62.1	1.8
25	63.0	1.8
26	63.9	1.8
27	64.9	1.8
28	65.8	1.8
29	66.8	1.8
30	67.7	1.8
31	68.7	1.8
32	69.7	1.8
33	70.7	1.8
34	71.7	1.8
35	72.8	1.8
36	73.9	1.8
37	75.0	1.9
38	76.4	2.0
39	78.2	2.4
40	81.3	3.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	33.1	4.8
9	38.5	2.7
10	41.0	2.2
11	42.8	2.0
12	44.3	1.9
13	45.6	1.8
14	46.9	1.8
15	48.1	1.8
16	49.2	1.8
17	50.4	1.8
18	51.5	1.7
19	52.5	1.7
20	53.6	1.7
21	54.6	1.7
22	55.6	1.7
23	56.6	1.7
24	57.5	1.7
25	58.5	1.7
26	59.4	1.7
27	60.4	1.7
28	61.3	1.7
29	62.3	1.7
30	63.3	1.7
31	64.3	1.7
32	65.3	1.7
33	66.4	1.7
34	67.5	1.7
35	68.6	1.7
36	69.8	1.8
37	71.0	1.8
38	72.4	2.0
39	74.2	2.4
40	77.8	3.7
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	30.5	4.9
9	35.3	3.7
10	38.1	3.3
11	40.4	3.1
12	42.2	3.0
13	43.9	2.9
14	45.3	2.8
15	46.7	2.7
16	47.9	2.7
17	49.1	2.6
18	50.2	2.6
19	51.3	2.6
20	52.4	2.6
21	53.4	2.6
22	54.3	2.5
23	55.3	2.5
24	56.2	2.5
25	57.2	2.5
26	58.1	2.5
27	59.1	2.5
28	60.0	2.5
29	61.0	2.5
30	62.0	2.6
31	63.0	2.6
32	64.0	2.6
33	65.1	2.6
34	66.2	2.7
35	67.4	2.8
36	68.7	2.9
37	70.2	3.0
38	72.0	3.2
39	74.1	3.5
40	77.6	4.3
*SE = Standard Error on T-score metric		

Adult v2.0 – Ability to Participate in Social Roles and Activities 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	25.9	3.9
9	29.7	2.3
10	31.3	1.9
11	32.6	1.7
12	33.6	1.6
13	34.5	1.6
14	35.3	1.5
15	36.2	1.5
16	36.9	1.5
17	37.7	1.5
18	38.5	1.5
19	39.3	1.6
20	40.2	1.6
21	41.1	1.6
22	42.0	1.7
23	43.0	1.7
24	44.0	1.7
25	45.0	1.7
26	46.0	1.6
27	47.0	1.6
28	48.0	1.6
29	48.9	1.6
30	49.9	1.6
31	50.8	1.6
32	51.7	1.6
33	52.7	1.6
34	53.6	1.6
35	54.6	1.6
36	55.7	1.6
37	56.8	1.7
38	58.2	2.0
39	60.2	2.5
40	65.4	4.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	40.7	5.9
9	47.9	2.4
10	49.9	1.8
11	51.2	1.5
12	52.3	1.4
13	53.2	1.4
14	54.1	1.4
15	55.0	1.4
16	55.8	1.4
17	56.6	1.4
18	57.4	1.3
19	58.1	1.3
20	58.8	1.3
21	59.5	1.3
22	60.2	1.3
23	60.8	1.3
24	61.5	1.3
25	62.1	1.3
26	62.8	1.3
27	63.5	1.3
28	64.1	1.3
29	64.8	1.3
30	65.5	1.3
31	66.2	1.3
32	66.9	1.3
33	67.7	1.3
34	68.4	1.3
35	69.2	1.3
36	70.1	1.4
37	71.0	1.4
38	72.1	1.6
39	73.5	2.0
40	77.0	3.5
*SE = Standard Error on T-score metric		

PROMIS 29 – PROFILE v2.1 AND PROMIS 29 + 2 PROFILE v2.1 (PROPr)

Adult v2.0 - Physical Function 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	22.5	4.0
5	26.6	2.8
6	28.9	2.5
7	30.5	2.4
8	31.9	2.3
9	33.2	2.3
10	34.4	2.3
11	35.6	2.3
12	36.7	2.3
13	37.9	2.3
14	39.2	2.4
15	40.5	2.4
16	41.9	2.5
17	43.5	2.6
18	45.5	2.8
19	48.3	3.3
20	57.0	6.6
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	40.3	6.1
5	48.0	3.6
6	51.2	3.1
7	53.7	2.8
8	55.8	2.7
9	57.7	2.6
10	59.5	2.6
11	61.4	2.6
12	63.4	2.6
13	65.3	2.7
14	67.3	2.7
15	69.3	2.7
16	71.2	2.7
17	73.3	2.7
18	75.4	2.7
19	77.9	2.9
20	81.6	3.7
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	41.0	6.2
5	49.0	3.2
6	51.8	2.7
7	53.9	2.4
8	55.7	2.3
9	57.3	2.3
10	58.9	2.3
11	60.5	2.3
12	62.2	2.3
13	63.9	2.3
14	65.7	2.3
15	67.5	2.3
16	69.4	2.3
17	71.2	2.4
18	73.3	2.4
19	75.7	2.6
20	79.4	3.6
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	33.7	4.9
5	39.7	3.1
6	43.1	2.7
7	46.0	2.6
8	48.6	2.5
9	51.0	2.5
10	53.1	2.4
11	55.1	2.4
12	57.0	2.3
13	58.8	2.3
14	60.7	2.3
15	62.7	2.4
16	64.6	2.4
17	66.7	2.4
18	69.0	2.5
19	71.6	2.7
20	75.8	3.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	32.0	5.2
5	37.5	4.0
6	41.1	3.7
7	43.8	3.5
8	46.2	3.5
9	48.4	3.4
10	50.5	3.4
11	52.4	3.4
12	54.3	3.4
13	56.1	3.4
14	57.9	3.3
15	59.8	3.3
16	61.7	3.3
17	63.8	3.4
18	66.0	3.4
19	68.8	3.7
20	73.3	4.6
*SE = Standard Error on T-score metric		

Adult v2.0 – Ability to Participate in Social Roles and Activities 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	27.5	4.1
5	31.8	2.5
6	34.0	2.3
7	35.7	2.2
8	37.3	2.1
9	38.8	2.2
10	40.5	2.3
11	42.3	2.3
12	44.2	2.3
13	46.2	2.3
14	48.1	2.2
15	50.0	2.2
16	51.9	2.2
17	53.7	2.3
18	55.8	2.3
19	58.3	2.7
20	64.2	5.1
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 4a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
4	41.6	6.1
5	49.6	2.5
6	52.0	2.0
7	53.9	1.9
8	55.6	1.9
9	57.1	1.9
10	58.5	1.8
11	59.9	1.8
12	61.2	1.8
13	62.5	1.8
14	63.8	1.8
15	65.2	1.8
16	66.6	1.8
17	68.0	1.8
18	69.7	1.9
19	71.6	2.1
20	75.6	3.7
*SE = Standard Error on T-score metric		

Cognitive Function Short Form v2.0 - Abilities 2a (part of PROMIS-29+2 Profile)		
Raw Summed Score	T-score	SE*
2	29.5	6.4
3	34.4	5.9
4	38	5.7
5	41.2	5.7
6	44.3	5.8
7	47.3	5.8
8	50.5	5.7
9	54.7	5.9
10	61.2	6.9
*Standard Error on T-score metric		

PROMIS 43 – PROFILE v2.1

Adult v2.0 - Physical Function 6b		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	21.0	3.8
7	25.0	2.7
8	27.1	2.4
9	28.8	2.2
10	30.1	2.1
11	31.3	2.0
12	32.3	2.0
13	33.2	1.9
14	34.2	1.9
15	35.0	1.9
16	35.9	1.9
17	36.8	1.9
18	37.6	1.9
19	38.5	1.9
20	39.3	1.9
21	40.2	1.9
22	41.2	1.9
23	42.1	1.9
24	43.2	2.0
25	44.3	2.0
26	45.6	2.2
27	47.1	2.3
28	48.9	2.7
29	51.3	3.0
30	59.0	6.2
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	39.1	5.9
7	45.9	3.4
8	48.8	2.9
9	50.9	2.6
10	52.7	2.4
11	54.2	2.3
12	55.6	2.2
13	56.9	2.2
14	58.2	2.2
15	59.4	2.2
16	60.7	2.2
17	62.0	2.2
18	63.3	2.2
19	64.6	2.2
20	66.0	2.2
21	67.3	2.2
22	68.6	2.2
23	70.0	2.2
24	71.3	2.2
25	72.7	2.2
26	74.1	2.2
27	75.6	2.3
28	77.4	2.4
29	79.4	2.7
30	82.7	3.5
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	38.4	5.8
7	45.2	3.4
8	48.3	2.8
9	50.4	2.4
10	52.0	2.2
11	53.4	2.1
12	54.7	2.0
13	55.9	2.0
14	57.0	1.9
15	58.2	1.9
16	59.3	2.0
17	60.5	2.0
18	61.7	2.0
19	62.9	2.0
20	64.2	2.0
21	65.5	2.0
22	66.7	2.0
23	68.0	2.0
24	69.3	2.0
25	70.6	2.0
26	72.0	2.0
27	73.4	2.0
28	75.0	2.1
29	76.9	2.4
30	80.3	3.5
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	33.4	4.9
7	39.1	2.9
8	42.0	2.4
9	44.2	2.2
10	46.1	2.1
11	47.8	2.1
12	49.4	2.1
13	50.9	2.0
14	52.4	2.0
15	53.7	2.0
16	55.1	2.0
17	56.3	1.9
18	57.5	1.9
19	58.8	1.9
20	60.0	1.9
21	61.2	1.9
22	62.4	1.9
23	63.7	2.0
24	65.0	2.0
25	66.4	2.0
26	67.8	2.0
27	69.3	2.0
28	71.0	2.1
29	73.0	2.5
30	76.8	3.8
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	31.7	5.1
7	36.9	3.9
8	40.1	3.5
9	42.5	3.3
10	44.6	3.2
11	46.4	3.1
12	48.0	3.0
13	49.5	3.0
14	50.9	3.0
15	52.3	2.9
16	53.6	2.9
17	54.8	2.9
18	56.1	2.9
19	57.3	2.9
20	58.5	2.9
21	59.7	2.9
22	61.0	2.9
23	62.3	2.9
24	63.6	2.9
25	65.0	2.9
26	66.5	3.0
27	68.1	3.1
28	70.0	3.3
29	72.4	3.6
30	76.1	4.4
*SE = Standard Error on T-score metric		

Adult v2.0 – Ability to Participate in Social Roles and Activities 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	26.7	4.0
7	30.7	2.4
8	32.5	2.0
9	33.9	1.9
10	35.1	1.8
11	36.2	1.8
12	37.2	1.8
13	38.2	1.8
14	39.3	1.8
15	40.4	1.8
16	41.6	1.9
17	42.9	1.9
18	44.2	1.9
19	45.6	1.9
20	46.9	1.9
21	48.2	1.8
22	49.5	1.8
23	50.7	1.8
24	51.9	1.8
25	53.2	1.8
26	54.5	1.9
27	55.9	1.9
28	57.5	2.1
29	59.6	2.6
30	65.0	4.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Pain Interference 6a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
6	41.1	6.0
7	48.6	2.4
8	50.7	1.8
9	52.2	1.6
10	53.4	1.6
11	54.5	1.6
12	55.6	1.5
13	56.6	1.5
14	57.6	1.5
15	58.6	1.5
16	59.5	1.5
17	60.4	1.4
18	61.2	1.4
19	62.1	1.4
20	63.0	1.5
21	63.8	1.5
22	64.8	1.5
23	65.7	1.5
24	66.7	1.5
25	67.6	1.5
26	68.7	1.5
27	69.8	1.5
28	71.0	1.6
29	72.6	2.0
30	76.3	3.6
*SE = Standard Error on T-score metric		

PROMIS 57 – PROFILE v2.1

Adult v2.0 – Physical Function 8b		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	20.3	3.7
9	23.9	2.5
10	26.0	2.2
11	27.5	2.1
12	28.8	2.0
13	29.8	1.9
14	30.8	1.8
15	31.7	1.8
16	32.5	1.7
17	33.2	1.7
18	34.0	1.7
19	34.7	1.7
20	35.4	1.6
21	36.1	1.6
22	36.7	1.6
23	37.4	1.6
24	38.1	1.6
25	38.8	1.6
26	39.5	1.6
27	40.1	1.6
28	40.8	1.6
29	41.6	1.7
30	42.3	1.7
31	43.1	1.7
32	43.9	1.7
33	44.7	1.8
34	45.7	1.8
35	46.7	1.9
36	47.8	2.1
37	49.2	2.3
38	50.8	2.6
39	53.0	3.0
40	60.1	5.9
*SE = Standard Error on T-score metric		

Adult v1.0 - Anxiety 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	37.1	5.5
9	42.2	3.3
10	45.9	2.8
11	47.8	2.5
12	49.4	2.3
13	50.8	2.2
14	52.1	2.1
15	53.2	2.0
16	54.3	2.0
17	55.4	2.0
18	56.4	2.0
19	57.4	2.0
20	58.4	2.0
21	59.4	2.0
22	60.4	2.0
23	61.4	2.0
24	62.5	2.0
25	63.5	2.0
26	64.5	2.0
27	65.6	2.0
28	66.6	2.0
29	67.7	2.0
30	68.7	2.0
31	69.8	2.0
32	70.8	2.0
33	71.9	2.0
34	73.0	2.0
35	74.1	2.0
36	75.4	2.0
37	76.7	2.1
38	76.2	2.3
39	80.0	2.6
40	83.1	3.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Depression 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	38.2	5.7
9	44.7	3.3
10	47.5	2.7
11	49.4	2.3
12	50.9	2.0
13	52.1	1.9
14	53.2	1.8
15	54.1	1.8
16	55.1	1.7
17	55.9	1.7
18	56.8	1.7
19	57.7	1.7
20	58.5	1.7
21	59.4	1.7
22	60.3	1.7
23	61.2	1.7
24	62.1	1.8
25	63.0	1.8
26	63.9	1.8
27	64.9	1.8
28	65.8	1.8
29	66.8	1.8
30	67.7	1.8
31	68.7	1.8
32	69.7	1.8
33	70.7	1.8
34	71.7	1.8
35	72.8	1.8
36	73.9	1.8
37	75.0	1.9
38	76.4	2.0
39	78.2	2.4
40	81.3	3.4
*SE = Standard Error on T-score metric		

Adult v1.0 - Fatigue 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	33.1	4.8
9	38.5	2.7
10	41.0	2.2
11	42.8	2.0
12	44.3	1.9
13	45.6	1.8
14	46.9	1.8
15	48.1	1.8
16	49.2	1.8
17	50.4	1.8
18	51.5	1.7
19	52.5	1.7
20	53.6	1.7
21	54.6	1.7
22	55.6	1.7
23	56.6	1.7
24	57.5	1.7
25	58.5	1.7
26	59.4	1.7
27	60.4	1.7
28	61.3	1.7
29	62.3	1.7
30	63.3	1.7
31	64.3	1.7
32	65.3	1.7
33	66.4	1.7
34	67.5	1.7
35	68.6	1.7
36	69.8	1.8
37	71.0	1.8
38	72.4	2.0
39	74.2	2.4
40	77.8	3.7
*SE = Standard Error on T-score metric		

Adult v1.0 - Sleep Disturbance 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	30.5	4.9
9	35.3	3.7
10	38.1	3.3
11	40.4	3.1
12	42.2	3.0
13	43.9	2.9
14	45.3	2.8
15	46.7	2.7
16	47.9	2.7
17	49.1	2.6
18	50.2	2.6
19	51.3	2.6
20	52.4	2.6
21	53.4	2.6
22	54.3	2.5
23	55.3	2.5
24	56.2	2.5
25	57.2	2.5
26	58.1	2.5
27	59.1	2.5
28	60.0	2.5
29	61.0	2.5
30	62.0	2.6
31	63.0	2.6
32	64.0	2.6
33	65.1	2.6
34	66.2	2.7
35	67.4	2.8
36	68.7	2.9
37	70.2	3.0
38	72.0	3.2
39	74.1	3.5
40	77.6	4.3
*SE = Standard Error on T-score metric		

Adult v2.0 – Ability to Participate in Social Roles and Activities 8a		
<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	25.9	3.9
9	29.7	2.3
10	31.3	1.9
11	32.6	1.7
12	33.6	1.6
13	34.5	1.6
14	35.3	1.5
15	36.2	1.5
16	36.9	1.5
17	37.7	1.5
18	38.5	1.5
19	39.3	1.6
20	40.2	1.6
21	41.1	1.6
22	42.0	1.7
23	43.0	1.7
24	44.0	1.7
25	45.0	1.7
26	46.0	1.6
27	47.0	1.6
28	48.0	1.6
29	48.9	1.6
30	49.9	1.6
31	50.8	1.6
32	51.7	1.6
33	52.7	1.6
34	53.6	1.6
35	54.6	1.6
36	55.7	1.6
37	56.8	1.7
38	58.2	2.0
39	60.2	2.5
40	65.4	4.9
*SE = Standard Error on T-score metric		

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<i>Short Form Conversion Table</i>		
Raw Summed Score	T-score	SE*
8	40.7	5.9
9	47.9	2.4
10	49.9	1.8
11	51.2	1.5
12	52.3	1.4
13	53.2	1.4
14	54.1	1.4
15	55.0	1.4
16	55.8	1.4
17	56.6	1.4
18	57.4	1.3
19	58.1	1.3
20	58.8	1.3
21	59.5	1.3
22	60.2	1.3
23	60.8	1.3
24	61.5	1.3
25	62.1	1.3
26	62.8	1.3
27	63.5	1.3
28	64.1	1.3
29	64.8	1.3
30	65.5	1.3
31	66.2	1.3
32	66.9	1.3
33	67.7	1.3
34	68.4	1.3
35	69.2	1.3
36	70.1	1.4
37	71.0	1.4
38	72.1	1.6
39	73.5	2.0
40	77.0	3.5
*SE = Standard Error on T-score metric		