GLOBAL HEALTH
SCORING MANUAL

A brief guide to scoring the PROMIS® Global Health instruments:

ADULT	PEDIATRIC	EARLY CHILDHOOD PARENT-REPORT	PARENT PROXY
PROMIS Scale v1.0/1.1 – Global Health* PROMIS Scale v1.2 – Global Health PROMIS Scale v1.2 – Global Mental 2a PROMIS Scale v1.2 – Global Physical 2a	PROMIS Pediatric Scale v1.0 – Global Health 7 PROMIS Pediatric Scale v1.0 – Global Health 7+2	PROMIS Early Childhood Parent-Report Scale v1.0 - Global Health 8a	PROMIS Parent Proxy Scale v1.0 – Global Health 7 PROMIS Parent Proxy Scale v1.0 – Global Health 7+2

*Retired measure

COMPARING SCORES ACROSS VERSIONS

Some PROMIS domains have multiple versions of instruments (i.e., v1.0, v1.1, v2.0). 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.

The PROMIS adult Global v1.0 and Global v1.1 paper forms are identical. The electronic version of Global v1.0 had "In the past 7 days" associated with item Global09. The electronic version of Global v1.1 measure correctly removes this additional item context; this revised item is Global09r. Global09 and Global09r are scored identically.

PROMIS Global v1.2 was constructed to enable automatic Item Response Theory scoring in the API (used by REDCap and others), and the HealthMeasures Scoring Service. The syntax of the items in Global v1.2 is identical to the syntax used in Global v1.1. To enable automated scoring, modifications were made only to response scores for three items. Specifically:

Items Global08 and Global10 (now Global08r and Global10r) have been altered in v1.2; the response scores (e.g., 1= None to 5=Very severe) were reversed (5=None to 1=Very severe; Table 1). This was done to ensure that higher scores for responses always indicate better health. This means that users do not have to recode v1.2 items by hand to obtain mental and physical health T-scores. In addition, Global 07 was changed to Global 07r, signifying that recoding response scores from 0-10 to 1-5 is done automatically in the API (used by REDCap), and the HealthMeasures Scoring Service. There is no change to appearance of this item to the respondent. Previous versions of the item required modifying response scores prior to calculating a score.

Table 1: Differences in response scores between v1.0/v1.1 and v1.2 of the Adult Global Scale

PROMIS Scale v1.0/v1.1 – Global Health		PROMIS Scale v1.2 – Global Health	
Global10	1=Never 2=Rarely 3=Sometimes 4=Often 5=Always	Global10r	5=Never 4=Rarely 3=Sometimes 2=Often 1=Always
Global08	1=None 2=Mild 3=Moderate 4=Severe 5=Very severe	Global08r	5=None 4=Mild 3=Moderate 2=Severe 1=Very severe
Global07	Users need to recode the 0-10 response scores into 1-5 scores.	Global07r	The 0-10 response scores are automatically recoded by the scoring algorithm used in the API and the HealthMeasures Scoring Service.

SCORING THE INSTRUMENT

PROMIS measures use Item Response Theory (IRT), a family of statistical models that link individual questions to a presumed underlying trait or concept of global health represented by all items in the scale. 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 questionnaire using a subset of questions from a PROMIS item bank.

Raw Sum Score to T Score Conversion Tables
If the HealthMeasures Scoring Service is not an option, the conversion tables in Appendix 1 can be used to convert simple summed raw scores from PROMIS global scales into T-score values on an individual respondent. In all cases, these conversions only work accurately when all questions on the scale have been answered. To use the scoring tables in this manual, calculate a summed score. Most questions have five response options ranging in value from one to five. To find the total raw score for a scale, sum the appropriate values of the responses from relevant questions. For example, for PROMIS Scale v1.2 – Global Mental 2a, sum the response values for both items.

PROMIS adult Global scales v1.0, v1.1, and v1.2 produce two scores: Global Mental Health and Global Physical Health. Consequently, only a subset of items from the scale is summed before using the appropriate table. Similarly, PROMIS Pediatric Scale v1.0 – Global Health 7+2 and PROMIS Parent Proxy Scale v1.0 – Global Health 7 + 2 produce multiple scores. Therefore subsets of items are summed together. The other measures (adult 2a, Pediatric 7, Early Childhood, Parent Proxy 7) produce a single global score. Additional details are provided below.

Using the Scoring Table
Locate the applicable score conversion table in Appendix 1 and use this table to translate the sum of raw scores into a T-score for each participant. The T-score rescales the raw sum 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 PROMIS Parent Proxy Global Health 7 Scale, a raw score of 10 converts to a T-score of 16.9 with a standard error (SE) of 3.4 (see scoring table for the 7-item short form in Appendix 1). Thus, the 95% confidence interval around the observed score ranges from 10.2 to 23.6 (T-score $\pm$ (1.96*SE) or 16.9 $\pm$ (1.96*3.4).

Scoring PROMIS Scale v1.0/v1.1 - Global Health
PROMIS Scale v1.0/v1.1 – Global Health can be scored using the HealthMeasures Scoring Service or the raw sum score to T-score look-up tables in this manual.

Score with HealthMeasures Scoring Service
   PROMIS Scale v1.2 – Global Health is included in the HealthMeasures Scoring Service. In order to use the HealthMeasures Scoring Service to score earlier versions of the global measure, you will need to change item IDs and modify response scores so that they match v1.2. Use the PDF of PROMIS Scale v1.2 – Global Health from HealthMeasures.net as a guide. It is available at Search & View on HealthMeasures.net.

   - **Item IDs**: In Global v1.0 and v1.1, there are four item IDs that need an "r" added. These are Global09 (becomes Global09r), Global10 (becomes Global10r), Global08 (becomes Global08r), and Global07 (becomes Global07r).
   - **Response Scores**: No change is needed for Global09r. For Global10r and Global8r, the direction of scores is reversed so that high scores reflect better functioning. For example in v1.1, item Global10 had "Never" equal to 1. Now, in v1.2, Global10r has "Never" equal to 5. Use the table above for guidance on response scores for these two items. No modification to the response scores for item Global07r is needed. The HealthMeasures Scoring Service will use the 0-10 response scores.

   After making modifications to the item IDs and response scores for these items in the data file, upload the data to the HealthMeasures Scoring Service. Locate PROMIS Global v1.2 in the Scoring Service by searching for "Global Mental Health" or "Global Physical Health". A new scored file will be sent by email and will include a score for Global Mental Health and a second score for Global Physical Health. The log file shows that four items are used for Mental Health and four other items are used for Physical Health. Use the raw responses for the other two items that don't contribute to a summed score. Instructions can be found in this video tutorial:
   https://www.youtube.com/watch?v=KM2FqYoS--A.

Score Using Raw Sum Score to T-Score Look-Up Tables

In order to calculate Global Physical and Global Mental scores, re-code Global07, Global08, and Global10 (Table 2) so that high scores reflect better functioning. (To re-code with software instead, apply the SAS code listed in Appendix 2 for use with v1.0/1.1.)

Table 2: Required Re-coding of Response Options for PROMIS Scale v1.0/v1.1 – Global Health for Look-up Tables

Original Item ID	Item Stem	New Item ID	Recoded Response Scores
Global07	How would you rate your pain on average?	Global07r	New Score = Response Text 5 = 0 - No pain 4 = 1 4 = 2 4 = 3 3 = 4 3 = 5 3 = 6 2 = 7 2 = 8 2 = 9 1 = 10 - Worst pain imaginable
Global08	How would you rate your fatigue on average?	Global08r	5 = None 4 = Mild 3 = Moderate 2 = Severe 1 = Very severe
Global10	How often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?	Global10r	5 = Never 4 = Rarely 3 = Sometimes 2 = Often

			1 = Always

- Calculate the Global Physical Health raw score by summing the responses for Global03, Global06, Global07r, and Global08r.
- Calculate the Global Mental Health raw score by summing the responses for Global 02, Global04, Global05, and Global10r.
- Use the raw sum to T-score tables for physical health and mental health in Appendix 1.
- The raw response scores from remaining two items from all PROMIS Global Health scales should be used in analyses.

Scoring Global Health Scale v1.2

PROMIS Scale v1.2 – Global Health can be scored using the HealthMeasures Scoring Service or be scored using raw sum score to T-score look-up tables in this manual.

Score with HealthMeasures Scoring Service

PROMIS Scale v1.2 – Global Health is included in the HealthMeasures Scoring Service. No modifications to item IDs or response scores is needed. Item IDs and response scores should match what is displayed in the PDF version of the measure available at HealthMeasures.net. Locate PROMIS Global v1.2 in the Scoring Service by searching for "Global Mental Health" or "Global Physical Health". After uploading your data file, a new scored file will be sent by email. It includes a score for Global Mental Health and a second score for Global Physical Health. The log file shows that four items are used for Mental Health and four other items are used for Physical Health. Use the raw responses for the other two items that don't contribute to a summed score. Instructions can be found in this video tutorial: https://www.youtube.com/watch?v=KM2FqYoS--A.

Score Using Raw Sum Score to T-Score Look-Up Tables

In order to calculate the Global Physical score, re-code Global07r (Table 3) so that high scores reflect better functioning. (To re-code with software instead, apply the SAS code listed in Appendix 2 for use with v1.2.)

Table 3: Required Re-coding of Response Options for PROMIS Scale v1.2 – Global Health for Look-up Tables

Original Item ID	Item Stem	New Item ID	Recoded Response Scores
Global07r	How would you rate your pain on average?	Global07rc	New Score = Response Text 5 = 0 - No pain 4 = 1 4 = 2 4 = 3 3 = 4 3 = 5 3 = 6 2 = 7 2 = 8 2 = 9 1 = 10 - Worst pain imaginable

- Calculate the Global Physical Health raw score by summing the responses for Global03, Global06, Global07rc, and Global08r.
- Calculate the Global Mental Health raw score by summing the responses for Global 02, Global04, Global05, and Global10r.
- Use the raw sum to T-score tables for physical health and mental health in Appendix 1.
- The raw response scores from remaining two items from all PROMIS Global Health scales should be used in analyses.

Global Mental 2a, Global Physical 2a, Pediatric Global Health 7, and Parent Proxy Global Health 7
The Global Mental 2a, Global Physical 2a, Pediatric Global Health 7, and Parent Proxy Global Health 7 all produce a single score.

Score with HealthMeasures Scoring Service
> All four of these scales are included in the HealthMeasures Scoring Service. No modifications to item IDs or response scores is needed. Item IDs and response scores should match what is displayed in the PDF version of the measure available at HealthMeasures.net. Locate the measure in the Scoring Service by searching for "Global Health". After uploading your data file,

a new scored file will be sent by email. It includes a score for Global Health. The log file shows the number of items used to calculate that score.

Score Using Raw Sum Score to T-Score Look-Up Tables

To find the total raw score for these scales with all questions answered, sum the values of the response to each question for a given respondent. For example, for the PROMIS Parent Proxy Global Health 7 Scale, the lowest possible raw score is 7; the highest possible raw score is 35 (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**.

- *PROMIS Scale v1.2 Global Health – Physical Health 2a:* sum the values of the responses to item Global03 and Global06.
- *PROMIS Scale v1.2 Global Health – Mental Health 2a:* sum the values of the responses to item Global04 and Global05.
- *PROMIS Pediatric Scale v1.0 – Global Health 7:* sum the values of the responses to all 7 items.
- *PROMIS Parent Proxy Scale v1.0 – Global Health 7:* sum the values of the responses to all 7 items.
- Use the raw sum to T-score tables for the appropriate scale in Appendix 1.

Calculating an EQ-5D Score

- The PROMIS Global scale can be used to predict a EuroQoL (EQ-5D) score. The EQ-5D preference score can be calculated by using the formulas provided in Appendix 3.

  Revicki DA, Kawata AK, Harnam N, Chen WH, Hays RD, and Cella D (2009). Predicting EuroQol (EQ-5D) scores from the Patient-Reported Outcomes Measurement Information System (PROMIS) global items and domain item banks in a United States sample. Qual Life Res, 18(6), 783-91. doi: 10.1007/s11136-009-9489-8

Calculating an HUI-3 Score

- Hays and colleagues (2016) reported on estimating a Health Utility Index Mark 3 from the PROMIS Global Health scale.

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

Pediatric Global Health 7+2 and Parent Proxy Global Health 7+2

The PROMIS Pediatric Global Health 7+2, and Parent Proxy Global Health 7+2 produce multiple scores.

Score with HealthMeasures Scoring Service

Both scales are included in the HealthMeasures Scoring Service. No modifications to item IDs or response scores is needed. Item IDs and response scores should match what is displayed in the PDF version of the measure available at HealthMeasures.net. Locate the measure in the Scoring Service by searching for "Global Health". After uploading your data file, a new scored file will be sent by email. The log file shows the number of items used to calculate that score. Only one score, Global Health, is produced per respondent.

Score Using Raw Sum Score to T-Score Look-Up Tables

To find the total raw global sum score, sum the values of 7 items' response scores. For example, for the PROMIS Parent Proxy Global Health 7+2 Scale, the lowest possible raw sum score for Global Health is 7; the highest possible raw sum score is 35 (see all short form scoring tables in Appendix 1). **All 7 questions must be answered in order to produce a valid global score using the scoring tables**. For the additional two items in Pediatric 7+2 and Parent Proxy 7+2, no sum is needed.

- *PROMIS Pediatric Scale v1.0 - Global Health 7+2:* sum the values of the responses to items Global01R1, Global02R1, Global03R1, Global04R1, PedGlobal2R1, PedGlobal5R1 and PedGlobal6R1 for the "Global" score. Retain the raw response score for items28761R1 and 3793R1r for fatigue and pain interference.
- *PROMIS Parent Proxy Scale v1.0 - Global Health 7+2:* sum the values of the responses to items Global01_PXR1, Global02_PXR1, Global03_PXR1, Global04_PXR1, PedGlobal02_PXR1, PedGlobal5_PXR1 and PedGlobal6_PXR1. Retain the raw response score for items PF4fatigue3r and Pf2pain5r for fatigue and pain interference.
- Use the raw sum to T-score tables for the appropriate scale in Appendix 1. There are tables for the individual fatigue and pain interference items as well.

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.* Thus, a person who has T- scores of 60 for the Global Physical Health or Global Mental Health scales is one standard deviation better (healthier) than the general population.

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 $\pm$ (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 1-SCORING TABLES

PROMIS Scale v1.0/v1.1/v1.2 – Global Health

PROMIS Global Physical Health v1.0/v1.1/v1.2 Short Form Conversion Table		
Raw Summed Score	T-Score	SE*
4	16.2	4.8
5	19.9	4.7
6	23.5	4.5
7	26.7	4.3
8	29.6	4.2
9	32.4	4.2
10	34.9	4.1
11	37.4	4.1
12	39.8	4.1
13	42.3	4.2
14	44.9	4.3
15	47.7	4.4
16	50.8	4.6
17	54.1	4.7
18	57.7	4.9
19	61.9	5.2
20	67.7	5.9
*SE = Standard Error on T-score metric		

PROMIS Global Mental Health v1.0/v1.1/v1.2 Short Form Conversion Table		
Raw Summed Score	T-Score	SE*
4	21.2	4.6
5	25.1	4.1
6	28.4	3.9
7	31.3	3.7
8	33.8	3.7
9	36.3	3.7
10	38.8	3.6
11	41.1	3.6
12	43.5	3.6
13	45.8	3.6
14	48.3	3.7
15	50.8	3.7
16	53.3	3.7
17	56.0	3.8
18	59.0	3.9
19	62.5	4.2
20	67.6	5.3
*SE = Standard Error on T-score metric		

Hays, R. D., Bjorner, J., Revicki, R. A., Spritzer, K. L., & Cella, D. (2009). Development of physical and mental health summary scores from the Patient Reported Outcomes Measurement Information System (PROMIS) global items. *Quality of Life Research, 18(7)*,873-80. (PMCID: PMC2724630)

PROMIS Scale v1.2 – Global Health Physical and Mental 2a

PROMIS Global Health v1.2 - Physical 2a		
Short Form Conversion Table		
Raw Summed Score	T-Score	SE*
2	23.4	5.5
3	29	5.1
4	33.4	4.9
5	37.3	4.8
6	41.1	4.8
7	45	5.1
8	50	5.4
9	56	5.9
10	63.3	7.1
*SE = Standard Error on T-score metric		

PROMIS Global Health v1.2 - Mental Health 2a		
Short Form Conversion Table		
Raw Summed Score	T-Score	SE*
2	25.8	4.9
3	32	4.3
4	36.5	4.2
5	40.6	4.1
6	44.4	4.1
7	48.6	4.1
8	52.8	4.1
9	57.7	4.5
10	64.6	5.7
*SE = Standard Error on T-score metric		

Hays, R. D., Schalet, B. D., Spritzer, K. L., & Cella, D. (2017). Two-item PROMIS® global physical and mental health scales. *Journal of Patient-Reported Outcomes*, *1*(1), 2.

PROMIS Pediatric Scale v1.0 – Global Health 7 and PROMIS Pediatric Scale v1.0 – Global Health 7+2

PROMIS Pediatric Scale v1.0 – Global Health 7		
Scale Conversion Table for first 7 items		
Raw Score	T-score	SE*
7.0	16.0	3.4
8.0	17.1	3.6
9.0	18.3	3.7
10.0	19.7	3.8
11.0	21.2	3.8
12.0	22.8	3.7
13.0	24.4	3.6
14.0	26.1	3.6
15.0	27.6	3.5
16.0	29.2	3.5
17.0	30.8	3.5
18.0	32.4	3.6
19.0	34.0	3.6
20.0	35.6	3.6
21.0	37.2	3.6
22.0	38.8	3.6
23.0	40.4	3.6
24.0	42.1	3.7
25.0	43.9	3.7
26.0	45.7	3.6
27.0	47.5	3.6
28.0	49.2	3.6
29.0	51.1	3.7
30.0	53.3	3.9
31.0	55.7	4.2
32.0	58.3	4.5
33.0	61.1	4.9
34.0	64.2	5.4
35.0	67.5	6.1
*SE = Standard Error on T-score metric		

PROMIS Pediatric Scale v1.0 – Global Health 7+2		
Scale Conversion Table for Fatigue Item		
Raw Score	T-score	SE*
1	40.0	8.2
2	46.4	7.2
3	52.9	7.4
4	59.1	7.7
5	63.7	8.7
*SE = Standard Error on T-score metric		

PROMIS Pediatric Scale v1.0 – Global Health 7+2		
Scale Conversion Table for Pain Interference Item		
Raw Score	T-score	SE*
1	42.6	7.5
2	50.3	5.9
3	54.7	6.1
4	59.2	6.2
5	64.2	7.3
*SE = Standard Error on T-score metric		

PROMIS Early Childhood Parent-Report - Global Health 8a

PROMIS Early Childhood Parent-Report Scale v1.0 - Global Health 8a		
Short Form Conversion Table		
Raw Score	**T-Score**	**SE***
8	8.5	2.7
9	10.3	3.0
10	12.2	3.0
11	13.9	3.0
12	15.6	2.9
13	17.1	2.8
14	18.6	2.8
15	20.0	2.8
16	21.3	2.8
17	22.6	2.7
18	23.9	2.7
19	25.1	2.7
20	26.4	2.7
21	27.6	2.7
22	28.8	2.7
23	30.1	2.7
24	31.3	2.8
25	32.6	2.8
26	33.8	2.8
27	35.1	2.8
28	36.4	2.8
29	37.8	2.8
30	39.1	2.8
31	40.5	2.8
32	41.9	2.8
33	43.4	2.9
34	44.9	2.9
35	46.5	3.0
36	48.3	3.1
37	50.3	3.4
38	52.8	3.8
39	56.0	4.4
40	61.9	6.1
*SE = Standard Error on T-score metric		

PROMIS Parent Proxy Scale v1.0 – Global Health 7 and PROMIS Parent Proxy Scale v1.0 – Global Health 7+2

PROMIS Parent Proxy Scale v1.0 – Global Health 7

Scale Conversion Table for first 7 items

Raw Score	T-score	SE*
7	14.7	2.9
8	15.3	3.1
9	16	3.2
10	16.9	3.4
11	18.1	3.6
12	19.4	3.7
13	21	3.8
14	22.7	3.8
15	24.4	3.7
16	26.1	3.7
17	27.7	3.7
18	29.4	3.8
19	31.2	3.8
20	32.9	3.8
21	34.6	3.8
22	36.2	3.8
23	37.9	3.9
24	39.7	4
25	41.7	4
26	43.6	3.9
27	45.4	3.8
28	47.3	3.9
29	49.3	4.1
30	51.8	4.4
31	54.5	4.7
32	57.3	5
33	60.2	5.4
34	63.2	6
35	66.1	6.5

*SE = Standard Error on T-score metric

PROMIS Parent Proxy Scale v1.0 – Global Health 7+2

Scale Conversion Table for Fatigue Item

Raw Score	T-score	SE*
1	40.15	7.07
2	48.94	5.81
3	56.07	5.99
4	62.62	6.22
5	68.12	7.24

*SE = Standard Error on T-score metric

PROMIS Parent Proxy Scale v1.0 – Global Health 7+2

Scale Conversion Table for Pain Interference Item

Raw Score	T-score	SE*
1	43.25	7.19
2	53.05	4.99
3	58.51	5.17
4	63.48	5.32
5	68.78	6.37

*SE = Standard Error on T-score metric

Appendix 2

**COLLAPSING AND RECODING fatigue (Global08), emotional distress
(Global10), and/or pain intensity (Global07)*

```
*******************************************
**USE FOR PROMIS GLOBAL v1.0 and GLOBAL v1.1**
*******************************************;

IF 1 LE Global10 LE 5 then Global10r=6-Global10;
IF 1 LE Global08 LE 5 then Global08r=6-Global08;

IF Global07 = 0 THEN Global07r=5;
ELSE IF 1 LE Global07 LE 3 THEN Global07r=4;
ELSE IF 4 LE Global07 LE 6 THEN Global07r=3;
ELSE IF 7 LE Global07 LE 9 THEN Global07r=2;
ELSE IF Global07=10 THEN Global07r=1;

***************************************************************
**USE FOR PROMIS GLOBAL 1.2 PAPER OR NON-HEALTHMEASURES OUTPUT**
***************************************************************;

IF Global07r = 0 THEN Global07rc=5;
ELSE IF 1 LE Global07r LE 3 THEN Global07rc=4;
ELSE IF 4 LE Global07r LE 6 THEN Global07rc=3;
ELSE IF 7 LE Global07r LE 9 THEN Global07rc=2;
ELSE IF Global07r=10 THEN Global07rc=1;
```

Appendix 3

ESTIMATE EQ-5D-3L FROM GLOBAL HEALTH ITEMS (REVICKI ET AL. 2009)

**NOTE: UNLESS YOU ARE USING HEALTHMEASURES ELECTRONIC OUTPUT FOR V1.2, PLEASE ENSURE THAT YOU COLLAPSE AND RECODE FIRST (SEE APPENDIX 2)

```
***************************
**USE FOR PROMIS GLOBAL v1.0**
***************************;
```

EQ5D = 0.19123 + (0.00672 * Global02) + (0.00527 * Global03) +
(0.00830 * Global04) + (0.04550 * Global06) + (0.02713 * Global07r) +
(0.01305 * Global08r) + (0.00613 * Global09) + (0.02502 * Global10r);

```
*********************************************************************
**USE FOR PROMIS GLOBAL v1.1 or v1.2 HEALTHMEASURES ELECTRONIC OUTPUT **
*********************************************************************;
```

EQ5D = 0.19123 + (0.00672 * Global02) + (0.00527 * Global03) +
(0.00830 * Global04) + (0.04550 * Global06) + (0.02713 * Global07r) +
(0.01305 * Global08r) + (0.00613 * Global09r) + (0.02502 * Global10r);

```
**************************************************************
**USE FOR PROMIS GLOBAL v1.2 PAPER/NON-HEALTHMEASURES OUTPUT**
**************************************************************;
```

EQ5D = 0.19123 + (0.00672 * Global02) + (0.00527 * Global03) +
(0.00830 * Global04) + (0.04550 * Global06) + (0.02713 * Global07rc) +
(0.01305 * Global08r) + (0.00613 * Global09r) + (0.02502 * Global10r);