CPI Scoring Guide

Sample Norms and Frequencies

The following pairs of tables provide (1) sample norms and frequencies and (2) Key Forms for the two measures comprising the Community Participation Indicators: Involvement in Life Situations and Control over Participation. Inclusion criteria for the sample were a self-identified disability, age 18 years and older, and ability to read and speak English. We recruited respondents with self-identified disabilities from multiple sources in order to obtain diverse sample, including an online panel generation company, recent inpatients of the Rehabilitation Institute of Chicago (RIC), attendees of several disability community events, independent living center and disability community organizations, a registry of current and former patients from RIC, Veterans Administration outpatients, and traumatic brain injury and spinal cord injury Model Systems collaborators. The convenience sample totaled 1,163 respondents. The median age was 53 years (S.D. = 17 years). Women comprised 49% of the sample. Race distribution included Caucasian (72%), African-American (12%), and Hispanic (7%) participants. Items were completed by self-report for 72% of the sample and interviewer-assisted for others. Self-reported disability severity was characterized as slight by 10% of the sample, moderate by 37%, somewhat severe by 38% and very severe by 14%. Respondents could identify multiple impairment categories. Self-reported impairment or condition categories included physical (63%), emotional (23%), hearing (14%), vision (13%), learning (11%) and communicative disabilities (9%). Marital status included married (38%), never married (23%), widowed (14%), divorced (9%), unmarried couple (5%), and separated (2%). The most frequently reported sources of income were Social Security Disability Insurance (23%), other household members' employment (21%), employment (19%), and retirement income (13%). Most participants reported living in a private residence (93%). Assistive device use was reported by 51% of the sample.

Table were produced with Winsteps software.

To estimate an equal-interval measure from the sum of all items for patients with no missing data, find the value in the SCORE column and read across to find its MEASURE. MEASURE is scored to range from 0 (the lowest possible score) to 100 (the highest possible score). These norms should be interpreted with caution; they are provisional and reflect the sampling strategy.

Using the Key Forms

For each Key Form, items are arrayed from easiest to endorse at the top to hardest to endorse at the bottom. Persons are arrayed from those with the lowest level of involvement or control at the left to those with the highest level of involvement or control at the right. This Key Form allows clinicians to estimate an individual's measure with missing responses to items. Clinicians can use the Key Form to estimate patients' measures and to look for unexpected responses.

The distance between scale points is equal-interval. The scale at the top and bottom of the key ranges from 0 (lowest possible score) to 100 (highest possible score). To use the Key Form, circle a patient's responses to each item. We do not expect responses to deviate more than a single response level from an adjacent item. Draw a vertical line at a point midway between the majority of the responses; the point where this line intersects the horizontal axis is the estimated measure for that person.

Abbreviations are: Q=quartile; S=standard deviation; T=2 standard deviations; M=median; SE=standard error.

Involvement in Life Situations

EXPECTED SCORE: MEAN (Rasch-score-point threshold, ":" indicates Rasch-half-point threshold)
(ILLUSTRATED BY AN OBSERVED CATEGORY)

```
10     20     30     40     50     60     70     80     90
|-----+-----+-----+-----+-----+-----+-----+-----|NUM  ITEM
1              1   :    2   :   3   :    4      :    5    5 5 I spend time doing things that improve my community
|                                                     |
|                                                     |
1            1   :    2   :   3   :    4      :     5    5 13 I have a say on decisions in my community
1             1   :    2   :   3   :    4      :     5    5 47 I am actively involved in my community
1           1   :    2   :   3   :    4      :    5      5 26 I assume leadership roles in organizations
|                                                     |
1         1   :    2   :   3   :    4      :    5        5 32 I have influence in my community
|                                                     |
|                                                     |
1        1   :    2   :   3   :    4      :   5          5 3 I participate in a variety of activities
1       1   :    2   :   3   :    4      :    5          5 46 I contribute to the well-being of my community
1        1   :    2   :   3   :    4      :    5         5 11 I regularly seek out new challenges
1      1   :    2   :   3   :    4      :   5            5 19 I contribute to society
|                                                     |
1      1   :    2   :   3   :    4      :    5           5 37 People see my potential
1     1   :    2   :   3   :    4      :    5            5 7 I spend time helping others
|                                                     |
1    1   :    2   :   3   :    4      :    5             5 30 I do important things with my
|                                                     |
1   1   :    2   :   3   :    4      :    5              5 35 I feel safe participating in community
|                                                     |
1 1   :    2   :   3   :    4      :    5                5 45 People count on me
|-----+-----+-----+-----+-----+-----+-----+-----|NUM  ITEM
10     20     30     40     50     60     70     80     90
         1 21142433376676357523212 1 1 1
821  6  1 39  3751422670516424796286046391 64  45 5  6    48  PERSON
        T        S         M         S        T
0             10 20 30 50 60 80  90                   99   PERCENTILE
```

TABLE OF MEASURES ON TEST OF 14 ITEM

| SCORE MEASURE   S.E. | SCORE MEASURE   S.E. | SCORE MEASURE   S.E. |
|----------------------+----------------------+----------------------|
14 .00E 17.83	33 41.51 2.81	52 56.38 2.93
15 11.42 9.59	34 42.30 2.79	53 57.26 2.97
16 17.80 6.73	35 43.08 2.77	54 58.17 3.02
17 21.51 5.50	36 43.85 2.76	55 59.10 3.07
18 24.17 4.80	37 44.62 2.75	56 60.07 3.13
19 26.27 4.34	38 45.38 2.74	57 61.08 3.19
20 28.02 4.01	39 46.14 2.74	58 62.14 3.27
21 29.55 3.77	40 46.90 2.73	59 63.25 3.36
22 30.91 3.58	41 47.65 2.73	60 64.43 3.47
23 32.15 3.43	42 48.41 2.74	61 65.69 3.60
24 33.30 3.31	43 49.17 2.74	62 67.06 3.76
25 34.37 3.21	44 49.93 2.75	63 68.56 3.96
26 35.39 3.13	45 50.70 2.76	64 70.25 4.21
27 36.35 3.06	46 51.48 2.78	65 72.18 4.55
28 37.28 3.00	47 52.26 2.80	66 74.48 5.02
29 38.17 2.95	48 53.06 2.82	67 77.38 5.74
30 39.03 2.91	49 53.86 2.84	68 81.40 6.98
31 39.88 2.87	50 54.68 2.87	69 88.19 9.84
32 40.70 2.84	51 55.52 2.90	70 100.00E 18.02

CURRENT VALUES, UMEAN=48.8192 USCALE=9.8961
TO SET MEASURE RANGE AS 0-100, UMEAN=48.8192 USCALE=9.8961
TO SET MEASURE RANGE TO MATCH RAW SCORE RANGE, UMEAN=41.3387 USCALE=5.5418
Predicting Score from Measure: Score = Measure * .8561 + -13.8122
Predicting Measure from Score: Measure = Score * 1.0859 + 18.4326

Control over Participation

EXPECTED SCORE: MEAN (Rasch-score-point threshold, ":" indicates Rasch-half-point threshold)
(ILLUSTRATED BY AN OBSERVED CATEGORY)

```
10    20    30    40    50    60    70    80    90
|-----+-----+-----+-----+-----+-----+-----+-----|NUM  ITEM
1           1    :    2    :    3    :    4    :     5    5 18 I am able to go out and have fun
1           1    :    2    :    3    :    4    :     5    5 15 I actively pursue my dreams and desires
1           1    :    2    :    3    :    4    :     5    5 20 I have opportunities to make new friends
|                                                  |
|                                                  |
1          1    :    2    :    3    :    4    :    5    5 10 I live my life fully
1         1    :    2    :    3    :    4    :    5    5  1 I live my life the way that I want
|                                                  |
1       1    :    2   :    3   :    4    :    5    5 42 I participate in activities when I want
1       1    :    2   :    3   :    4    :    5    5  6 I participate in activities that I choose
|                                                  |
1      1   :    2    :   3   :    4    :     5    5 16 I do things that are important to me
1      1   :    2   :   3   :    4    :    5    5 33 I am in control of my own life
|                                                  |
1     1   :    2   :   3  :    4    :     5    5 14 I have choices about the activities I do
1     1   :    2   :   3   :    4   :    5    5 40 I have control over how I spend my time
|                                                  |
1    1   :    2   :    3   :    4    :    5    5  9 I have the freedom to make my own decisions
|                                                  |
|                                                  |
1  1   :    2   :    3   :    4    :    5    5 23 I take responsibility for my own life
|-----+-----+-----+-----+-----+-----+-----+-----|NUM  ITEM
10    20    30    40    50    60    70    80    90
             1 1112 453554536445733 222 3 2  3    24
2         22 15441058454700727190727227427961117227  1152PERSON
             T         S        M        S         T
0               10 20 30 50 60 70 80    90      99PERCENTILE
```

TABLE OF MEASURES ON TEST OF 13 ITEM

SCORE	MEASURE	S.E.	SCORE	MEASURE	S.E.	SCORE	MEASURE	S.E.
13	.00E	17.50	31	40.79	2.92	49	56.73	3.15
14	11.15	9.40	32	41.66	2.90	50	57.77	3.20
15	17.39	6.61	33	42.52	2.88	51	58.84	3.25
16	21.04	5.43	34	43.37	2.87	52	59.95	3.32
17	23.68	4.76	35	44.22	2.87	53	61.10	3.39
18	25.78	4.32	36	45.06	2.86	54	62.31	3.48
19	27.55	4.01	37	45.90	2.86	55	63.59	3.58
20	29.11	3.78	38	46.74	2.87	56	64.96	3.71
21	30.51	3.60	39	47.59	2.88	57	66.42	3.86
22	31.78	3.46	40	48.44	2.89	58	68.03	4.05
23	32.97	3.35	41	49.31	2.90	59	69.81	4.29
24	34.09	3.25	42	50.18	2.92	60	71.84	4.62
25	35.15	3.18	43	51.06	2.94	61	74.24	5.08
26	36.17	3.11	44	51.96	2.97	62	77.25	5.78
27	37.14	3.06	45	52.87	3.00	63	81.36	6.99
28	38.09	3.01	46	53.80	3.03	64	88.23	9.78
29	39.01	2.98	47	54.75	3.06	65	100.00E	17.79
30	39.91	2.94	48	55.73	3.10			

CURRENT VALUES, UMEAN=48.2492 USCALE=9.7387
TO SET MEASURE RANGE AS 0-100, UMEAN=48.2492 USCALE=9.7387
TO SET MEASURE RANGE TO MATCH RAW SCORE RANGE, UMEAN=38.0896 USCALE=5.0641
Predicting Score from Measure: Score = Measure * .7751 + -11.4212
Predicting Measure from Score: Measure = Score * 1.2066 + 16.9082