

ILLNESS BURDEN MEASURE DIFFERENCES

A brief guide to differences between the PROMIS® Illness instruments:

ADULT
PROMIS Bank v1.0 - Illness Burden PROMIS Short Form v1.0 - Illness Burden 6a

ABOUT ILLNESS BURDEN

PROMIS Illness Burden instruments evaluate the impact that a chronic medical condition (or conditions) has (have) on independent living, the ability to work (including working at home), social activities and relationships. The Illness Burden item bank was developed in individuals with type 2 diabetes mellitus but it is appropriate for persons who have a health condition or conditions for which they have sought or thought about seeking treatment. Each form assesses current experience of burden rather than feelings over a specified time period.

Illness Burden instruments are available for adults (ages 18+).

For complete list of all PROMIS definitions, go to: <http://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/list-of-adult-measures>

INTRODUCTION TO ASSESSMENT OPTIONS

There are two administration options for assessing Illness Burden: a short form and a computer adaptive test (CAT). When administering a short form, instruct participants to answer all of the items (i.e., questions or statements) presented. With a CAT, participant responses guide the system's choice of subsequent items from the full item bank (27 items in total in bank). Although items differ across respondents taking CAT, scores are comparable across participants.

Some administrators may prefer to ask the same question of all respondents or of the same respondent over time, to enable a more direct comparability across people or time. In these cases, or when paper administration is preferred, a short form would be more desirable than CAT.

CAT: A minimum number of items (i.e., 4) must be answered in order to receive a score for the Illness Burden 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. CAT will continue until either the standard error drops below a specified level ($SE < 3.0$ on the T-score metric), or the participant has answered the maximum number of questions (8), whichever occurs first.

Standard Stopping Rules: The PROMIS Bank v1.0 – Illness Burden 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)
 - The standard error changes by less than 0.01 on the theta metric (0.1 on the T-score metric)

CAT versus Short Form: Whether one uses a short form or CAT, the score metric is Item Response Theory (IRT), a family of statistical models that link individual questions to a presumed underlying trait or concept of illness burden represented by all items in the item bank. When choosing between CAT and a short form, it is useful to consider the demands of computer-based assessment, and the psychological, physical, and cognitive burden placed on respondents as a result of the number of questions asked.

VERSION DIFFERENCES

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.

Adult

There is only one version (v1.0) of the Illness Burden instruments.

SHORT FORM

There is one 6-item Illness Burden short form. The short form items were selected using item performance statistics in combination with clinical relevance/importance. Three primary criteria were used in the selection of items: 1) Psychometrics – selected items should have excellent, or high discrimination, IRT parameters. This includes steep slope and high average item information; 2) Content – selected items should have adequate content coverage, and items should be clinically meaningful and representative of the construct being measured; and 3) Item Difficulty – selected items should represent different levels of difficulty, ranging from easy to endorse to difficult to endorse.

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, for Illness Burden a score of 50 is the average for a sample of individuals with type 2 diabetes mellitus. 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 Illness Burden, a T-score of 60 is one SD worse than average. By comparison, an Illness Burden T-score of 40 is one SD better than average.

PREVIEW OF SAMPLE ITEM

Figure 1 is an excerpt from the paper version of the v1.0 item bank. It is important to note, CAT is not available for paper administration.

Figure 1

		Never	Rarely	Sometimes	Usually	Always
ib_44	My medical condition makes me upset	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
ib_32	I am unable to do the things I want to do because of my medical condition	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Figure 4

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.

Q: Can I make my own short form?

Yes, custom short forms can be made by selecting any items from the item bank. This can be scored using the Scoring Service (https://www.assessmentcenter.net/ac_scoring-service).