Assessment Center (PROMIS®) API Frequently Asked Questions

Licensing Process

1. What is the licensing process for the API?

   First, license and billing details will be collected from you—the organization name for licensure, the organization address, the point of contact for the license, the email address for accounts payable/invoice, and a PO number if needed. Generally within a week, a license and invoice will be sent to you. When payment is received for the invoice, the API download link will be sent to you and your annual clock will begin.

2. May we change the license terms and get your lawyer on the phone with ours?

   The API license is a template used with all clients, and we have limited legal resources for making modifications for such small contracts. Small edits may be allowed but larger modifications can cause significant delays. Note the Terms of Use included as an Exhibit are the same Terms of Use that are applicable across all uses of HealthMeasures and found on www.healthmeasures.net. The Terms of Use indicate that permission is required for electronic use of HealthMeasures; note that the API license gives you that permission.

3. What are the license fees?

   A single institution license is $5,250 annually. A distributor license for vendors with a limited number of clients is $15,750 annually. A client is considered a vendor if they have clients they charge for their platform or associated services. Multiple instances of the API are $5,250/annually each. Electronic Medical Record (EMR) companies require a contract that licenses each of their clients individually.

4. Can we get a single institution license as a vendor if only one client will be using PROMIS measures?

   Yes. A vendor may get a single institution license on behalf of one client.

5. What is included with the license fee?

   Unlimited number of measures, unlimited number of clinicians, unlimited number of patients, unlimited number of administrations, updates of the API code, computerized adaptive administration, fixed form administration, and automatic scoring.

6. What are the payment options?

   Check, wire/EFT, credit card (Visa, MasterCard, Discover).

7. What is the term of the license?

    The default term for the license is 3 years with an annual renewable contract. Therefore, the license fee is locked in for 3 years but the API can be discontinued at any time. The default payment schedule is once a year although multiple years can be paid in advance. The license term can be modified in one-year increments by request.

8. Why should I license the API when the PROMIS PDFs are free to use for paper administration?

    A significant advantage to using the API is the ability to administer measures in a computerized adaptive testing (CAT) format so that each question is tailored to the respondent based on the previous response; this results in a more precise score with fewer questions. CATs can reduce patient burden, and precise scores provide more power for detecting differences in scores. Another advantage is the automatic scoring that allows for missing data because each item response is taken into account; note the scoring manuals provided for free download contain overall scoring tables based on summed scores and thus no missing data is allowed. A third advantage is that access to the API provides over 800 measures electronically without a need to individually program each measure manually from the PDF. A fourth advantage is that score interpretation information (e.g., thresholds that delineate mild/moderate/severe score categories) is available for many of the PROMIS measures.

Measures

9. What measures are available in the API?

    Over 800 measures, including over 500 PROMIS measures, are included in the API. The API includes HealthMeasures (PROMIS®, Neuro-QoL™, ASCQ-Me®, and most NIH Toolbox® self-report measures) as well as additional measures that follow PROMIS methodology and have been added to our platform: SCI-QOL, TBI-QOL, and CIQOL. You can read more about HealthMeasures measurement systems by clicking the "Explore Measurement Systems" tab on www.healthmeasures.net. Generally, PROMIS is applicable to everyone, including the general population as well as individuals living with a chronic condition; Neuro-QoL is designed for individuals living with a neurological condition; ASCQ-Me is designed for adults living with sickle cell disease; and NIH Toolbox is designed for everyone with a focus on performance tests of cognitive, motor, and sensory function, as well as self-reported emotional function measures. SCI-QOL is designed for individuals living with spinal cord injuries; TBI-QOL is designed for individuals living with traumatic brain injury; and CIQOL is designed for individuals living with cochlear implants.

    Specific measures currently in the API can be found here: https://www.assessmentcenter.net/ac_api/demo/defaultv2.htm. Click "List Forms" to view available measures. Click "List Batteries" to view available global health and profile measures.

10. Why aren't all of the NIH Toolbox measures in the API?

    The performance measures of the NIH Toolbox are not self-report measures like the other measures included in the API. The NIH Toolbox includes measures that contain puzzles and tasks that require more programming than a question. The scoring for the NIH Toolbox has

been normed based on the specific timing and presentation that is used in the iPad app. You can read more about the NIH Toolbox iPad app here: https://www.healthmeasures.net/implement-healthmeasures/administration-platforms/nih-toolbox-ipad-app. However, note that many of the emotion measures are included in the API.

11. I can't find Global Health/PROMIS-10 listed in the API. Is it available?

Any measure that produces multiple scores, e.g. profiles as well as PROMIS Global Health, is considered a battery. Batteries can be viewed be clicking "List Batteries" here: https://www.assessmentcenter.net/ac_api/demo/defaultv2.htm. Guidance for calling a battery from the API is provided here: https://www.assessmentcenter.net/ac_api/2012-01/Docs/Batteries.

Note that "PROMIS-10" is a common nickname for the official measure, PROMIS Global Health. Be sure to use the official measure name in any publications or reports.

12. Will the API measures look the same to my patients as other measures we have added into our platform?

Yes. The API does not have a user interface. Rather, the API provides the measure content (question text) and algorithms for administering and scoring. The measures will appear however you have your data collection platform set up to display items. Company-specific branding and theming may be used so that API measures are seamless with other measures being administered to your patients.

Guidelines for how HealthMeasures should appear are included with your license. These include recommendations such as displaying one item per screen and showing the item context on a separate line from the stem. We also recommend that the items are presented with as minimal other text on the screen as possible to reduce cognitive burden for respondents.

13. Which measures should I use for my population and purpose?

Please review our guides of recommended measures for specific populations here: https://www.healthmeasures.net/explore-measurement-systems/selecting-among-measurement-systems/recommended-healthmeasures and our guide for selecting a measure: https://www.healthmeasures.net/explore-measurement-systems/selecting-among-measurement-systems/recommended-healthmeasures.

Translations

14. What translations are available in the API?

Currently, English and Spanish measures are included in the API. Theoretically, any translation may be added to the API as a separate script. However, translations of a given measure may exist in any stage from not being translated at all to available to be added to the API. Currently, some measures in Danish, Dutch, Finnish, Flemish, French, German, Italian, Portuguese, and Swedish are readily available to be added to the API. Many of our measures are available as PDFs and time needs to be allowed for the uploading of the measure to the HealthMeasures electronic database and API. Information regarding translation availability can be found here: http://www.healthmeasures.net/explore-measurement-

systems/promis/intro-to-promis/available-translations and inquired about at translations@healthmeasures.net.

15. How much do translations in the API cost?

    English and Spanish are provided at no extra cost. Generally translations are licensed for each user (a single institution or client of a vendor) and are available via quote.

Scoring and Administration

16. Can you send me the CAT and scoring algorithms so I can administer and score the measures myself?

    The API measures are developed and scored psychometrically using item response theory. More information about item response theory is found here: http://www.healthmeasures.net/resource-center/measurement-science/item-response-theory and information about the CAT algorithm is found here: http://www.healthmeasures.net/resource-center/measurement-science/computer-adaptive-tests-cats.

    The heart of the API includes the algorithms for administering and scoring the measures and is not available without a license.

    An advantage of item response theory is that items are administered and scored based on their individual statistical characteristics. For example, endorsement of an item indicating a respondent can run a mile is scored differently (estimate is shifted to the high end of physical function) than an item indicating a respond can walk up stairs (the estimate is a more moderate level of physical function).

17. What scores are produced by the API?

    Theta scores and T-scores are produced by the API. A linear transformation (multiply by 10 and add 50) is included to obtain T-scores from theta scores. Information about T-scores are provided here: http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis.

18. How many items are administered in a CAT?

    Items will continually be administered until the standard error has been reduced to a certain threshold or the maximum number of items allowed has been reached. The median number of items administered is 4 before the standard error criteria has been reached. However, more items will generally be administered when a patient is entering responses consistent with the floor or ceiling (e.g., all extreme responses with no variability). The default maximum is 12 items and can be changed in the calibration files by changing the value associated with maxItemCount.

19. How long does it take to complete a measure in the API?

    On average, each PROMIS item has been shown to take 7 seconds to complete.

20. Can we use the API for scoring measures if they were administered before we licensed the API?

    Yes. The API can be hosted on a statistician's computer and called as a web service from their desired statistical package for scoring. SAS has Proc SOAP

(http://support.sas.com/documentation/cdl/en/proc/61895/HTML/default/viewer.htm#a003359189.htm) to allow the calling of a web service, which can also be hosted within the SAS environment. R can use the httr library to call a web service. SPSS Modeler can call a web service via CLEF. STATA and other software packages have similar capabilities.

21. Can the API produce a score report similar to that provided by the CAT demo (https://www.assessmentcenter.net/ac1/Assessments/CATDemo)?

    The API is RESTful, so it only returns xml or json rather than a formatted layout. However, a similar report layout could be developed by the API user. The normed lookup values (age, gender) for the domains listed in the CAT demo are available in a spreadsheet that accompanies the distributed API package upon licensure.

Marketing

22. May we send a press release about the availability of PROMIS measures in our platform after installing the API?

    Yes. Please send to api@assessmentcenter.net for review.

23. Will you market us as a HealthMeasures/PROMIS vendor?

    Yes. Please send a text blurb you would like displayed on our website. You may find examples here: https://www.healthmeasures.net/implement-healthmeasures/administration-platforms/other-online-tools.

Sandbox

24. How can my IT team get set up to integrate the API?

    We recommend your team set up data connections via the Assessment Center sandbox found here: www.assessmentcenter.net/ac_api. This sandbox is provided for testing purposes and once the production API is sent, calls to the sandbox can be programmed to redirect to the API hosted on your own server.

25. Can I implement my small study using the sandbox?

    No. The sandbox is provided only for testing purposes and not for use with real patients. For users with limited funds, please consider the PROMIS iPad app or REDCap.

Data Security

26. What system does Northwestern have for storing the patient data? Is the PROMIS API compliant with national and international security and privacy policies?

    The security and privacy of clients' confidential data are important to Northwestern University. We want you to know that we do not collect, process, or store data on behalf of PROMIS API clients. The PROMIS API is delivered to and hosted on the client's server for use behind their firewall. For your reference, our information security policies are located here: https://www.feinberg.northwestern.edu/it/policies/information-security. Our HIPAA/ISO Information Security Guidance is located here: https://www.it.northwestern.edu/policies/HIPAA-guidance.html. Additionally, the PROMIS API is compliant with the 2018 European Commission Data Protection guidelines.

27. Will you complete this Security Assessment?

The API is sent to you to host on your own server behind your own firewall. We do not process or receive any data from your use of the API. The security protections related to the API are the parameters of the system you are using with your own network and data collection platform.

28. Will we be able to access the raw data from the assessments?

Yes. The individual item scores, theta scores, and T-scores are all accessible endpoints for storing in your own database. A discussion about each API endpoint can be found in the technical walk-through here: https://www.assessmentcenter.net/ac_api/2012-01/Docs/API_tech_walkthrough.docx.

Technical Support

29. What are the technical requirements for adding the API to my data collection platform?

The primary requirement is that your data collection platform must have built-in survey functionality. In other words, the platform that you will be integrating the API into must already have the ability to administer questions and store the response data somewhere.

The supported software requirements are IIS 7.0 and above, and MS SQL server 2008R2 and above. Windows 2016 (both windows and SQL) server and Amazon RDS for SQL server (configured with mix-mode authentication) both support the API.

Additional technical details are available here: https://www.assessmentcenter.net/ac_api/2012-01/Docs/FAQ and at links at the bottom of this page: https://www.assessmentcenter.net/ac_api/.

30. Does the API license include technical support?

Limited technical support is included to teleconference with your IT team, but you will need IT resources to enable the API in your system.