

# About the CAHPS® Health Information Technology Item Set

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## Introduction

There are many local, regional, and national initiatives to accelerate the adoption of health information technology (health IT). Because of the associated changes in the delivery of care, assessing the use of health IT from the patient's perspective is important.

In the summer of 2011, the CAHPS Consortium finalized a new set of supplemental items for the CAHPS Clinician & Group Survey that focus on assessing the use of health IT.

This document discusses—

- Rationale for assessing health IT from the patient's perspective.
- Topics covered by the health IT supplemental item set.
- Selecting health IT items.
- Ways to use the survey results to inform health care consumers and other stakeholders and to improve the quality of care.

## Assessing the Use and Impact of Health IT

Health IT is a broad term that captures multiple technologies and functions. Use of health IT varies and can include—

- Providers' use of computers or handheld devices during a patient visit to:
  - access and complete information in an electronic medical record (EMR).
  - access medical information, such as prescribing guidelines.
  - show medical record information to the patient (e.g., x-ray images, growth curves).
  - transmit a prescription medicine.
- Patients' use of the Internet, personal health records (PHRs) or portals to:
  - make appointments.
  - communicate and ask questions via secure messaging.
  - view information from the EMR such as visit notes, prescription lists, laboratory or other test results.
  - request prescription refills.

While the technology has the potential to improve communication and access for patients, some studies have reported negative outcomes, such as depersonalization of the provider visit. Therefore, it is critical to assess the use and impact of health IT from the patient's perspective. The CAHPS Consortium developed items that would assess aspects of the use of health IT for which patients are the best or only source of information.

## Contents of the CAHPS Health IT Item Set

The Health IT Item Set consists of 21 supplemental items designed for use with the CAHPS Clinician & Group Survey. The items address the following three content areas:

- Provider use of computer or handheld device
- E-mail access and helpfulness
- Helpfulness of health IT

**Appendix A** provides a list of the items in the Health IT Item Set. Formatted items with response options are also listed in the Supplemental Items for the Adult Clinician & Group Surveys at *Get Clinician & Group Surveys and Instructions*:

<https://www.cahps.ahrq.gov/Surveys-Guidance/CG/Get-CG-Surveys-and-Instructions.aspx>; that document also provides instructions for placing each item in the core 12-Month Survey.

To learn more about incorporating supplemental items into a questionnaire, go to **Preparing a Questionnaire Using the CAHPS Clinician & Group Survey**:

[https://www.cahps.ahrq.gov/~media/Files/Surveys-and-Guidance/CGKit/1032\\_CG\\_Preparing\\_a\\_Questionnaire.pdf](https://www.cahps.ahrq.gov/~media/Files/Surveys-and-Guidance/CGKit/1032_CG_Preparing_a_Questionnaire.pdf).

## Selecting Items from the CAHPS Health IT Item Set

The Health IT Item Set was designed to assess a variety of aspects of health IT. Users of the Item Set may select the items that are applicable to the health IT functions they want to assess.

**Appendix A** lists the category for each item in the Health IT Item Set based on health IT function. Users can select items based on the applicable health IT functions. All items have relevant screening items to determine if the patient has used the specific function.

Users are encouraged to follow the administration guidelines for the Clinician & Group Survey. It is recommended that items be administered to all patients rather than a subset (e.g., only those patient that access a patient portal). To learn more about administering the Clinician & Group Survey, go to **Fielding the CAHPS Clinician & Group Survey**: [https://www.cahps.ahrq.gov/~media/Files/SurveyDocuments/CG/Admin\\_Survey/1033\\_CG\\_Fielding\\_the\\_Survey.pdf](https://www.cahps.ahrq.gov/~media/Files/SurveyDocuments/CG/Admin_Survey/1033_CG_Fielding_the_Survey.pdf).

## Using Data From Responses to the CAHPS Health IT Item Set

Organizations that field the CAHPS Clinician & Group Survey may want to use data from these questions to inform consumers, provide feedback to providers, and spur improvements in patients' experiences with care.

## Informing Consumers

If you incorporate questions from the Health IT Item Set into the Clinician & Group Survey, you can report results at the level of the medical group, physician practice, or individual clinician. The item set produces four patient experience measures: three composite measures plus one single item about access to appointments.

- Helpfulness of provider's use of computers during a visit (2 items)
  - Provider's use of computer or handheld device was helpful to you.
  - Provider's use of computer or handheld device made it easier for you to talk with him or her.
- Getting timely answers to medical questions by email (2 items)
  - Provider answered your emailed medical question as soon as you needed.
  - Provider answered all of your emailed questions.
- Helpfulness of provider's Web site in giving you information about your care and tests (4 items)
  - Easy-to-find lab or other test results on the Web site.
  - Lab or other test results posted on Web site as soon as you needed them.
  - Lab or other test results presented in way that was easy to understand.
  - Visit notes were easy to understand.
- Getting timely appointments through email or a Web site (1 item)
  - Patient got an appointment using email or Web site as soon as needed.

For information on calculating scores for composite measures, review the analysis instructions in the *CAHPS Clinician & Group Surveys and Instructions*: <https://www.cahps.ahrq.gov/Surveys-Guidance/CG/Get-CG-Surveys-and-Instructions.aspx>.

## Providing Feedback

Health care organizations using this item set can use the composite measures for benchmarking and reporting at the group or practice site level. For example, a health system may report the composite measures listed above to compare performance across provider groups, or a provider group may compare performance across practice sites.

At the level of individual providers, health care organizations may want to provide item-level feedback in order to help providers better understand the behaviors and actions that improve the patients' experiences such as:

- Barriers to making appointments using health IT.
- Responsiveness to questions submitted electronically.
- Providers use of computers or handheld devices during the clinical encounter.
- Providing information (test results or visit notes) using health IT.

### Improving Quality

This item set is intended to collect data that health care providers can use to improve care by:

- Identifying specific topic areas for quality improvement.
- Recognizing particular behaviors or actions that inhibit the effective use of health IT.
- Measuring the effect of behaviors that promote the effective use of health IT.

Providers can identify their strengths and weaknesses by topic area as well as for individual items by analyzing differences in responses. Responses can also be segmented for further analyses to provide more detailed information. Examples of subgroups of interest include: demographics, level of utilization, length of relationship with provider, etc.

Having identified opportunities for improvement and embarked on quality improvement activities, the providers can then field the items again to evaluate the success of improvement activities.

To learn about quantitative and qualitative analyses useful for identifying improvement opportunities as well as strategies for improving patients' experiences, explore the **CAHPS Improvement Guide** at: <https://www.cahps.ahrq.gov/Quality-Improvement/Improvement-Guide.aspx>.

### Development of the CAHPS Health IT Item Set

The Agency for Healthcare Research and Quality (AHRQ) sponsored the development of the Health IT Item Set through the CAHPS Consortium. The development process included the following steps:

- **Stakeholder meetings.** In June 2006, AHRQ hosted a meeting with health IT and CAHPS survey experts as well as stakeholders representing health care organizations and consumers. This group discussed the use of health IT by physician practices, the aspects of patient care likely to be affected by health IT, the areas that consumers would be best suited to comment on, and sources of related information, including potential items.

**Learn more:** Health IT-CAHPS® Stakeholders Meeting, June 28, 2006:  
[https://www.cahps.ahrq.gov/~media/Files/Survey-and-Guidance/HIT\\_CAHPS\\_Meeting\\_Summary](https://www.cahps.ahrq.gov/~media/Files/Survey-and-Guidance/HIT_CAHPS_Meeting_Summary).

- **Literature review.** The CAHPS team completed a literature review of HIT/provider/patient interactions.
- **Focus groups.** The CAHPS team conducted focus groups with health IT users. The goals of the focus group sessions were to explore:
  - What health care functions are important to patients.
  - How patients view health IT's role in facilitating those functions.
  - What patients believe they are able to report on regarding health IT.
  - What patients regard as the most important roles for health IT in a physician practice.
- **Item inventory.** Based on the stakeholder meeting, literature review, and focus groups, the grantees developed an inventory of items and sorted them into content domains.
- **Site interviews.** The team conducted in-depth interviews with health plan representatives and providers that use health IT. The interviews explored issues around electronic and PHR architecture, functions most frequently used by providers and patients, and percent of patients registered to use PHR systems.
- **Cognitive testing.** Draft items were cognitively tested with consumers to ensure that they can accurately understand and interpret the questions and response options. After two rounds of cognitive testing, the team incorporated the findings into an item set that was used for field testing.
- **Technical expert panel.** Toward the end of item development the team convened a web-based meeting of a technical expert panel of 20 health informatics and policy leaders who provided advice on item set domains and the pilot testing process.
- **Field testing.** The items were tested in three organizations in diverse geographic settings.
- **Psychometric analysis.** Extensive psychometric analyses were conducted to understand how the items functioned in the field test. The results led to the finalization of the Item Set and composite measures.
- **Composite label testing.** The composite measure labels were tested with consumers to ensure that the labels were understood as intended by consumers.

The CAHPS Consortium would like to acknowledge in particular the following organizations for their support of the development of this item set: Beth Israel Deaconess Medical Center, Group Health Cooperative, and Kaiser Permanente Southern California.

## Related Resources

- Agency for Healthcare Research and Quality:  
[http://healthit.ahrq.gov/portal/server.pt/community/ahrq\\_national\\_resource\\_center\\_for\\_health\\_it/650](http://healthit.ahrq.gov/portal/server.pt/community/ahrq_national_resource_center_for_health_it/650)

## Appendix A. Items in the Health IT Item Set

The formatted supplemental items, complete with instructions on how to integrate them into the full CAHPS Clinician & Group Survey, are available in the Supplemental Items for the Adult Clinician & Group Surveys at *Get Clinician & Group Surveys and Instructions*:

<https://www.cahps.ahrq.gov/Surveys-Guidance/CG/Get-CG-Surveys-and-Instructions.aspx>.

The specific health IT function that is assessed in each item is indicated in the table, which can be used to determine the appropriate items to use. For example, if a practice communicates via email with patients but does not have a Web site or patient portal and providers do not use computers or handheld devices during patient visits then the items indicated in the “E-mail” column are appropriate to use.

Item	Item text	Email	Patient Web site	Provider Use of Computer
HIT1.	Can you make appointments at this provider's office by email or on a Web site?	x	x	
HIT2.	In the last 12 months, did you use email or a Web site to make an appointment at this provider's office?	x	x	
HIT3.	In the last 12 months, when you used email or a Web site to get an appointment at this provider's office, how often did you get an appointment as soon as you needed?	x	x	
HIT4.	In the last 12 months, did you email this provider's office with a medical question?	x		
HIT5.	In the last 12 months, when you emailed this provider's office, how often did you get an answer to your medical question as soon as you needed?	x		
HIT6.	In the last 12 months, when you emailed this provider's office, how often were all of the questions in your email answered?	x		
HIT7.	Providers may use computers or handheld devices during an office visit to do things like look up your information or order prescription medicines. In the last 12 months, did this provider use a computer or handheld device during any of your visits?			x
HIT8.	During your visits in the last 12 months, did this provider ever use a computer or handheld device to look up test results or other information about you?(Q39)			x



CAHPS® Clinician & Group Surveys and Instructions

Item	Item text	Email	Patient Web site	Provider Use of Computer
HIT9.	During your visits in the last 12 months, did this provider ever use a computer or handheld device to show you information?			x
HIT10.	In the last 12 months, did this provider ever use a computer or a handheld device to order your prescription medicines?			x
HIT11.	During your visits in the last 12 months, was this provider's use of a computer or handheld device helpful to you?			x
HIT12.	During your visits in the last 12 months, did this provider's use of a computer or handheld device make it harder or easier for you to talk with him or her?			x
HIT13.	Does this provider's office put your laboratory or other test results on a Web site for you to see?		x	
HIT14.	In the last 12 months did you look for your lab or other test results on the Web site?		x	
HIT15.	In the last 12 months, how often was it easy to find these lab or other test results on the Web site?		x	
HIT16.	In the last 12 months, how often were these lab or other test results put on the Web site as soon as you needed them?		x	
HIT17.	In the last 12 months, how often were these lab or other test results presented in a way that was easy to understand?		x	
HIT18.	Visit notes sum up what was talked about on a visit to a provider's office. Visit notes may be available on paper, on a Web site or by email. In the last 12 months, did this provider's office offer you visit notes?	x	x	x
HIT19.	In the last 12 months, how did this provider's office offer you the visit notes? Mark one or more.	x	x	x
HIT20.	In the last 12 months, did you look at any visit notes from this provider's office?	x	x	x
HIT21.	In the last 12 months, how often were the visit notes easy to understand?	x	x	x