

ATTACHMENT E

Guide for Interview with Physician Leader

Thank you for participating in the study today. The goal of the study is to understand the influence of things such as patient or provider characteristics; physical environment and layout; technical training and support; functionality and usability of health IT; worker roles; staff workload, stress, and job satisfaction; and communication flows—in capturing and using patient-reported information in ambulatory health IT systems and associated workflows.

Your participation includes an interview where we will ask you questions about the use of health IT to record patient-reported information, such as symptoms (e.g., pain, fatigue), results of self-testing (e.g., blood glucose levels, blood pressure), weight questions and concerns, or over-the-counter medication use, and its impact on workflow. In this interview we will focus on the technological context and ask you some questions, the health information technology (IT) used in your practice. During the interview with the Practice Manager we will focus on the social context (e.g., history and background of the practice, patient population you serve).

First we need to review an information sheet describing the study.

[Give subject copy of information sheet and review it with them].

Please read the sheet carefully. If you still would like to participate in the interview, please let me know. Do you have any questions before we move on?

[After respondent agrees to participate]

Thank you again for agreeing to participate in the study today. As I mentioned before, the goal of the study is to understand factors that influence how your practice captures and uses patient-reported information in health IT systems and associated workflows. We are interested in the tools and technologies used in your practice, and the workflows for clinicians when incorporating patient-reported information into their interactions with patients and clinical decision-making. We would like to audio-record the interview to help us capture your responses. May we record the interview?

Public reporting burden for this collection of information is estimated to average 60 minutes per response, the estimated time required to complete the interview. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: AHRQ Reports Clearance Officer Attention: PRA, Paperwork Reduction Project (0935-XXXX) AHRQ, 540 Gaither Road, Room # 5036, Rockville, MD 20850.

- *If subject has agreed to audio-recording:*
I have set up the tape recorder here in front of us. Please speak clearly during the interview so that the tape will record your voice accurately. I may ask you to repeat a response to make sure that it is recorded.
- *If subject has not agreed to audio recording and a note taker is not available:*
I will take notes during our conversation today. I may ask you to slow down or pause for a moment so that I can record what you say accurately.
- *If subject has not agreed to audio recording and a note taker is available:*
My colleague [NAME] will take notes during our conversation today. He/she may ask you to slow down or pause for a moment so that he/she can record what you say accurately.

During the interview, please use only your first name if you refer to yourself. This will help us keep your responses private. Your answers will not be individually reported to your care team members here at the practice. If we do share information from the interview with practice staff, we will only report it at the aggregate level, so that it is not obvious who said what.

The interview will take about 60 minutes to complete. If you need to take a break during the interview to use the restroom or get a drink, please let me know and we will pause the interview.

If any of my questions aren't clear or you don't understand a word that I use, please let me know and I will rephrase the question for you.

Please remember that you are not required to answer any specific question. You may also leave the interview at any time.

Do you have any questions before we start the interview?

I. HISTORY OF AND CURRENT STATUS OF HEALTH INFORMATION TECHNOLOGY

1. When (in what year) did you start implementing health IT? When did you get your electronic health record (EHR) system? What functionalities does it have (e.g. e-prescribing, computerized provider order entry [CPOE], computer decision support [CDS])?
2. Can you tell us about the implementation process? How did you implement it? For example how did you choose your current EHR? What sorts of help did you receive from another organization with your health IT implementation (for example a Regional Extension Center [REC] or a Quality Improvement Organization [QIO])? Was the implementation process easy? What difficulties did you have? Can you give us some examples?

II. HEALTH IT SUPPORT

1. What kind of health IT support do you have in your practice? Did you hire IT personnel? Are you satisfied with the health IT support that you have in your practice?
2. Can you tell us about health IT in your practice that collects information from patients? These types of health IT systems can include:
 - Patient portals (sometimes referred to as [electronic] personal health records or PHRs; allow patients to view portions of their medical records [e.g., laboratory test results] and support other

health-related tasks such as making appointments or requesting medication refills. Some patient portal applications exist as stand-alone Web sites; other portal applications are integrated into an existing electronic health record [EHR] system);

- Secure messaging with patients (use of secure e-mail between patients and clinicians, typically using the secure messaging functionality in the EHR and/or patient portal); and
- e-forms (surveys that are administered using computerized media [e.g., tablets, laptops] to collect information from patients using pre-formatted forms before or during patient visits).

When did you implement this (these) system(s)? Did someone help you with the implementation? Was the implementation process easy? What difficulties did you have? What do you do with the information that patients provide? Does patient-provided information have a big impact on the way you organize your work in then practice? And on workflow?

III. FUTURE HEALTH IT PLANS

1. What are the future plans with regard to health IT?

IV. IMPACT OF HEALTH IT ON YOUR PRACTICE

The following questions are about the implementation of health IT and, in particular, health IT that allows patients to provide information electronically (such as e-forms, securing messaging, or patient portals, and what impact that has on way you organize the work in your practice.

1. Changes with regard to the (physical) environment

- What changes did [health IT] implementation create for your practice's work environment?
 - Do clinicians and staff have less paper to deal with?
 - Do clinicians and staff spend more time with computers?
 - For example, do clinicians and staff in the practice spend more time dealing with other people (colleagues and patients) using the computer, instead of talking to them face-to-face or via the phone?
 - Do they have to walk less, or more?
 - Are computer work stations located where they spend most time?
- ➔ **Interactions:** Did changes in the physical environment cause changes in the way work is organized
- ➔ **Interactions:** Did changes in the physical environment cause changes in the way tasks are performed?
- ➔ **Interactions:** Did changes in the physical environment cause changes in the way clinicians and staff interact with other people (colleagues and patients)?

2. Changes with regard to the person(s)

- Did clinicians and staff receive (extensive) training in the [health IT]?
- Are there changes in the way clinicians and staff in the practice perform their work? For example:
 - Who takes care of [health IT] in the practice?
 - Who customizes [health IT]?

- o Can clinicians and staff –as the end-users– make changes to the [health IT], to better fit their workflow?
- ➔ **Interactions:** According to you, did these changes have an impact on the rest of the practice? For example, do you think that better trained personnel interact differently with their colleagues and with patients?

3. Changes with regard to tasks you perform

- What activities do clinicians and staff do now (with [health IT]) that they did not do before (when you used a paper system)?
 - Do clinicians and staff spend more on certain tasks than before [health IT] implementation?
 - For example, do physicians spend more or less time examining the patient? Talking with the patient? Please explain.
 - Do clinicians talk about different things when patients come for office visits? For example, less time asking about history and current problems and more time talking about a care plan? Please explain.
 - Do clinicians and staff spend time now helping patients use the [health IT] to report information? For example, showing them how to use a tablet computer, or explaining how to use the patient portal?
 - Do you think that –overall– [health IT] saves you time?
 - Does [health IT] help clinicians and staff to better prepare for a patient’s visit?
- ➔ **Interactions:** What effects have these changes in tasks on how you organize the work in your practice and workflow?

4. Changes with regard to tools and technology

- How did [health IT] implementation change the way clinicians and staff use *tools and technology such as the telephone, fax, and computers*?
 - Do clinicians and staff use certain tools less? More?
 - For example, do clinicians and staff use the phone less, now that patients can send information electronically, or use secure messaging to ask questions?
 - Do clinicians and staff spend more time answering email now?
 - Do clinicians and staff help patients use tablet computers or other technology to report their information?
 - Does information come from a patient Web site to you? How does it arrive: directly into the patient’s electronic record, or via an email?
 - Do clinicians and staff spend more/less time looking for patient information (as compared to paper charts)?
 - Do clinicians and staff spend more/less time passing information back and forth with others in your practice, or waiting for someone else to finish with a chart before they can use it?
 - How does your practice use [health IT] to communicate with your patients?
 - What kind of topics do clinicians discuss with patients using [health IT]?
 - Immediate health concerns?
 - General health issues such as lifestyle changes?
 - Patient self-monitoring/self-management?
 - Medication questions?
 - Test results?
 - Specialist referrals?
 - Prescription refills?
 - Scheduling appointments?
 - Does your examine/analyze the use of data from [health IT]? In other words: do you analyze:
 - How many patients have used the [health IT]?
 - How much time you have spent using the [health IT],
 - What effect has it had on patient visits, calls, etc.

- How does your practice use the [health IT] to redesign your workflow and improve quality of care?
- Do you think that “automation” of certain processes allows clinicians and staff to spend more time on patients?

➔ **Interactions:** Has the way you changed your use of tools and technology impacted the tasks that clinicians and staff do and the way the work is organized?

5. Changes with regard to the organization of the practice

General questions:

- How has [health IT] affected the (organizational) structure of the practice? New people hired, for example medical assistants, etc.
- How has [health IT] affected the *processes* in the practice? Do people do other things and do people spend their time differently?

Specific questions:

- How has [health IT] implementation affected the number of patient visits?
- How has [health IT] implementation affected the length of patient visits?
- How many patients report information to the practice using [health IT]?
 - # per day
 - # per week
- What percent of all your patients use [health IT] on a regular basis?
- How does [health IT] affect appointment scheduling? For example, longer or shorter patient visits.
- Does [health IT] implementation affect the number of patients you see per day?
- How does [health IT] affect referrals?
- How does [health IT] affect information about test results? For example, do patients have questions about the test results that show up in the patient portal?
- How does [health IT] affect prescription changes and medication monitoring/management?
- What can you tell us about *efficiency* of your practice after [health IT] implementation? Do you have the feeling that processes are more efficient, for example physicians are able to see more patients per day? For example, some studies have shown a change of 10% in physician productivity (the number of patients they see) after health IT implementation.
- Does your practice use [health IT] for activities such as preventive screening and patient education?
- Does [health IT] impact how you measure quality of care provided?

➔ **Interactions:** What are the consequences of these organizational changes for the practice?

➔ **Interactions:** Does it affect the tasks that people perform?

6. Use of [health IT] in daily practice

- How does [health IT] affect workflow?
 - For example, when do clinicians and staff check e-mail?
 - How many times a day?
 - When do clinicians and staff reply to patient’s e-mail? Is that structured (in other words: at certain times) or is it ad hoc (whenever they can find the time)?
 - Does triage of the e-mails take place? How do clinicians and staff make decisions with regard to triage?
 - How do clinicians and staff manage communication to other clinicians (how does your practice prevent the information becoming too unwieldy)?
 - Do you use scripted templates in your practice?
 - How do clinicians and staff decide whether a patient can be “seen” via e-mail, or should instead be invited to make a practice appointment?
- How does [health IT] affect workload in your practice?
- How does [health IT] affect communication in your practice?
- Have you had any problems using [health IT] to communicate with patients? Can you give us an example?

7. Usefulness and usability of [health IT]

- What do you think about the *usefulness* of [health it] and potential benefits of [health it]? Does health IT have benefits?
 - Is it useful for your practice?
 - If it useful for you, personally, as you do work?
 - Is it useful for patients?
 - Does it help you redesign your practice in such a way that you have become more efficient or more effective? Please explain.
- What do you think of *usability* of [health IT]?
 - Is it easy to use for practice clinicians and staff?
 - Is it easy to use for patients?
- What part(s) of [health IT] do you like best?
- What part(s) of [health IT] could be improved?

8. [Health IT] implementation and practice redesign

- Does [health IT] implementation provide your practice with opportunities to redesign your work and workflow? Can you please provide some examples?
- Does [health IT] make the processes more efficient?
- Does [health IT] allow practice clinicians and staff to spend more time on direct care activities, the “core processes” of your practice, such as patient examination, patient communication. Can you provide some examples?

9. [Health IT] implementation and quality and safety of patient care

- How do you think that [health IT] affects quality of care at your practice?
- How does [health IT] affect continuity of care? For example, does [health IT] allow you to examine trends in patient data, or send out reminders?
- How do you think that [health IT] affects patient involvement?
- How do you think that [health IT] affects patient participation in decisionmaking?

- What effect does [health IT] have on patient adherence? Patient self-management?
- How do you think that [health IT] affects care coordination?
- How do you think that [health IT] affects patient safety?
 - Do you think [health IT] reduces medical errors?
 - If yes, why? If no, why not?

10. Security and privacy

- What do you think about security, privacy, and confidentiality and [health IT]?
- How much of an issue is this for your practice?
- How much of an issue is it for patients, do you think?

11. [Health IT] implementation and patient satisfaction

- How do you think that patients appreciate the practice's use of [health IT]?
- Do some patients benefit more from [health IT] than others (e.g., patients with chronic care needs)?

12. Barriers

- What are the main barriers to successful [health IT] implementation?
 - Start-up costs
 - Maintenance costs
 - Reimbursement for time spent using [health IT]
 - Privacy, security
 - Privacy and security concerns of patients
 - Computer skills of you and your colleagues
 - Computer skills of patients
 - Workflow adjustments
 - Training
 - Skepticism
 - Increase in workload
 - Lack of computer support in your workplace
 - Lack of computer support (or hardware, internet access) for patients
 - Legal risks
 - Loss of face-to-face contact with patients
 - Negative effect on patient-physician communication
 - Other ...
- Which, of all those barriers, do you think is the most important one?

13. Facilitators

- Does [health IT] make life easier for clinicians and staff? If yes, why, If no, why not?
- Does [health IT] improve the processes in the practice?
- Do you use data from your [health IT] to (further) improve/redesign your practice?
- Do you think [health IT] makes life easier for patients? If yes, why? If no, why not?
- Do you think that patients who use health IT and provide information, are better prepared when they come to the practice?

14. Final questions

- Overall, how satisfied are you with [health IT] in your practice?