ATTACHMENT D

Guide for Interview with Practice Manager

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 ask you some questions about the social context (the people that work in the practice, your patients, and the way work is organized in your practice); and during the interview with the Physician Leader we will focus on the technical context and, in particular, the health information technology (IT) used in your practice.

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 help us understand factors that influence how your practice captures and uses patient-reported information in health IT systems and associated workflows. We are interested in characteristics of your practice and how it is organized, who is involved in capturing and using patient-reported information, the tools and technology people use to accomplish their tasks, the workflow across individuals in your practice, and variation or flexibility in individuals' workflows. We would like to audio-record the interview to help us capture your responses. May we record the interview?

- *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.   PRACTICE CHARACTERISTICS

1. Practice History and Current Status

Please tell us a little bit about the history of the practice. For example, how has the practice developed over time?

2. Patients

Can you tell us about the patients that come for care in your practice? For example, do you have many Medicaid/Medicare patients? Do you have many patients with chronic diseases? Do you have many patients that use information technology (e.g., computers, smart phones, tablet computers)?

3. Organization of Work

Can you tell us a bit about how works is organized in your practice? For example, can you tell us about the different job positions (e.g. receptionist(s), clerks, medical assistants, nurses, physician assistant, nurse practitioners, and physicians) and what they do?

4. Health IT and Organization of Work

Can you tell us something about the impact of health IT and, in particular, health IT that is used by patients to provide information? 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).

What is the impact of these technologies on the practice? What effect does it have on the way work is organized in the practice? Does it affect workflow? How does it affect the billing process?

5. Patients and Health IT

Can you tell us something about how patients in your practice use health IT, such as secure messaging to ask questions? Can you tell us some more about patients' use of health IT? Are there certain types of patients that use health IT more than others (e.g., young, computer savvy patients, or patients with chronic diseases)?

II. 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, **, secure messaging, and 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 *work environment*?
  - o Do clinicians and staff have less paper to deal with?
  - o 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?
  - o Do they have to walk less, or more?
  - o 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 use of [health IT]?
- Are there changes in the way clinicians and staff in the practice perform their work? For example:
  - o Who takes care of [health IT] in the practice?
  - o 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:** Based on your experience, 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)?
  o   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?
  o   Do you think that –overall– [health IT] saves you time?
  o   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*?

  o   Do clinicians and staff use certain tools and technology 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?
  o   How do practice clinicians and staff use [health IT] to communicate with your patients?
  o   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?
  - o Does your practice you 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.
  - o How does your practice use the [health IT] to redesign your workflow and improve quality of care?
  - o 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? For example, new people hired, such as medical assistants.
- 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?
- On average, how many patients report information to the practice using [health IT]?
  - o Per day
  - o 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 feel that processes are more efficient, for example physicians are able to see more patients per day?
- Do you 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?
  - o For example, when do clinicians and staff check e-mail?

- o How many times a day?
- o 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)?
- o Does triage of the e-mails take place? How do clinicians and staff make decisions with regard to triage?
- o How do clinicians and staff manage communication to other clinicians (how do you prevent the information becoming too unwieldy)?
  - ▪ Do you use scripted templates in your practice?
- o 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* and potential benefits of [health it]? Does health IT have benefits?
  - o Is it useful for your practice?
  - o Is it useful for patients?
  - o 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]?
  - o Is it easy or practice clinicians and staff?
  - o 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 you 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 you to spend more time on the 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?
- • 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?
  - o 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 you?
- 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?
  o Start-up costs
  o Maintenance costs
  o Reimbursement for time spent using [health IT]
  o Privacy, security
  o Privacy and security concerns of patients
  o Computer skills of you and your colleagues
  o Computer skills of patients
  o Workflow adjustments
  o Training
  o Skepticism
  o Increase in workload
  o Lack of computer support in your workplace
  o Lack of computer support (or hardware, internet access) for patients
  o Legal risks
  o Loss of face-to-face contact with patients
  o Negative effect on patient-physician communication
  o Other …
- Which, of all those barriers, do you think is the most important one?

13. Facilitators

- Does [health IT] make your life easier? 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?