Appendix A

Case Study Protocol

**Research Title:** A Qualitative Case Study of Electronic Health Record Adoption in Office-Based Physician Practices

**Interviewer:** Steve Meigs

**Date/Time/Location of the Interview:**

<table>
<thead>
<tr>
<th>Participant Demographics</th>
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<tbody>
<tr>
<td>Organization code:</td>
<td>Years in practice:</td>
</tr>
<tr>
<td>Participant identification code:</td>
<td>Years’ experience with EHR:</td>
</tr>
<tr>
<td>Role in practice:</td>
<td>Specialty:</td>
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</tbody>
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**Project summary (read aloud to participant):** First, thank you again for your participation in this study. Before we begin the interview, I will provide you some background about myself, this research project, and your rights as a participant.

As a healthcare administrator, I have been committed to providing support to physicians and other clinical staff in facilitating the process of health care. In my role as an administrator I frequently addressed issues regarding documentation of care and the protection of patient information. As the industry started moving toward electronic health records, I became acutely aware of the impact on physicians and patient care processes resulting from the transition from paper records to electronic systems. I have observed this transition process firsthand in large health care organizations and, although challenging in this environment, typically a support infrastructure exists that attempts to mitigate or resolve barriers to EHR implementation. From the literature I have learned that most office-based physician practices do not have resources available to support transition from paper to electronic records. The literature also suggests that although many perceive EHRs as contributing positively to the delivery and quality of care, adoption of these systems, especially in office-based settings has been slow. The purpose of this qualitative case study is to explore why primary care physicians working in office-based practices have been slow to adopt EHR technologies.

This interview will last approximately 30 minutes. I will ask several open-ended questions prompting you to reflect upon your experience with technology and with your decision to implement EHRs in your practice. You have the right to refuse to answer any question. Before beginning the interview, I have a very brief survey for you to complete regarding your personal and professional information technology use.

With your permission I will use a tape recorder to document your answers; however, you do have the right to refuse my use of a tape recorder during this interview. To protect your privacy and ensure confidentiality of your contribution to this study, your name and any other personal identifying information will be omitted from the interview transcript, as well as all presented and
published documents resulting from this study. Your participation in this study is voluntary and you have the right to withdraw from the study at any time.

Should you desire, I will provide you a summary of the results of this study. Would you like to receive this summary?  Yes  No

(Explain the voluntary nature of the participant’s participation in the study and the requirement for informed consent. Explain how data collected during the study will be held in confidence, and that the participant’s name and organization will not be identified in the research. Have participant review and sign the informed consent document; ask the participant for his/her permission to tape record the interview. Provide the participant the survey instrument [Demographics and Technology Use Survey] and pen and ask them to complete.)

Questions for participants in office-based practices:
INTRODUCTION: In 2009, as part of the American Recovery and Reinvestment Act, Congress passed and the president signed the Health Information Technology for Economic and Clinical Health (HITECH) Act encouraging adoption of EHRs throughout the United States health system by 2014.

1. How would you describe your beliefs regarding the adoption of electronic health records in the United States health system?
2. How has the experience of others influenced your practice’s adoption of an EHR?
3. How would you characterize your attitude toward using health information technology in healthcare?
4. How do you perceive the support of external organizations (e.g., the federal government, state agencies) in assisting you in implementing an EHR for your practice?
4.1. Follow-on: How do you perceive the support of external organizations (e.g., the federal government, state agencies) in assisting your practice post EHR implementation?
4.2. Probe: How well do you feel external organizations have communicated their programs and resources for assistance to you?
5. Do you have a sense for the degree to which your peers in other practices have successfully implemented EHR systems?
6. Follow-on: Why do you believe they have been successful/unsuccesful (depending on answer)?

TRANSITION: Many studies have identified barriers to EHR adoption such as cost, lack of interoperability with existing systems, need to redesign workflow processes, fear of reduced productivity, lack of security of patient information, and reduced revenues.

7. How would you describe your practice’s approach in addressing potential barriers that resulted in your successful adoption of an EHR?
7.1. Follow-on: Do you have specific examples where your practice identified a barrier (e.g., lack of interoperability, lack of technical expertise, cost, etc.) and developed a successful mitigation strategy?
8. How do you believe integrating an EHR into clinic workflow affects the practice?
9. In what ways has using an EHR affected the care you provide your patients?
10. How easily has your practice been able to share health information with other health care entities using your EHR?

TRANSITION: According to the United States Department of Health and Human Services, meaningful use of an EHR is using the system in “a manner that improves quality, safety, and efficiency of healthcare delivery, reduces healthcare disparities, engages patients and families, improves care coordination, improves population and public health, and ensures adequate privacy and security protections for personal health information.”

11. How would you describe your perspective of meaningful use as defined by HHS?
   11.1. Follow-on: How would you characterize the degree of difficulty in achieving meaningful use?
   11.2. Follow-on: Do you believe using the EHR in a meaningful manner improves the quality of care you provide to your patients? Why or why not?
12. How would you describe your use of technology outside of work?
   12.1. Follow-up: How did/does this personal use of technology influence your use on an EHR?
13. How has your decision to adopt an EHR affected your practice?
14. How satisfied have you been with your decision regarding EHR adoption?
   14.1. Follow-on: Why? (Focus on understanding underlying reasons for either satisfaction or dissatisfaction)
15. How do your patients perceive your decision to use an EHR?
   15.1. Follow-on: Do you believe using an EHR changes your doctor-patient interaction? If so, how and why?