

On the Affordable Use, Administration, and Maintenance of Open Source Health Care IT Applications by Rural/Small-Practice Health Professionals

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The purpose of this project is to detail the Health information technology related needs of rural health care providers and stakeholders, create an open source electronic data system based incorporates the stated needs of rural practices and pilot the open source system in one rural practice.

Methods

We will do phone interviews on 4 primary care providers and 2 rural IT folks to learn more about the current and anticipated electronic data needs of rural healthcare providers. We will the participants about their concerns about using and sending electronic data and what they think their patients concerns may be. We will analyze the responses using standardized qualitative methods. The UNC-Chapel Hill site principal investigator, Dr. Halladay (the investigator) will contact approximately 10 potential respondents by phone and email from lists provided by Marti Wolfe, the Clinical Programs Director of the North Carolina Community Health Center Association and Dr. Phil Slone, the Director of the North Carolina Network Consortium to schedule phone interviews. The investigator will lead the health care providers and IT personnel through a semi-structured qualitative phone interview guided by the following questions:

IRB Study # _____

Introduction

“Hi, my name is Jacqueline Halladay and I’m a researcher with The University of North Carolina at Chapel Hill’s Family Medicine Department and am doing this study along with Dr .Laurie Williams PhD who is in the computer science department at NC State. I contacted you in the past via phone or e-mail about your interest in participating in a phone interview to find out about the electronic data needs of those who provide healthcare in rural settings in North Carolina. I am calling to remind you about this research study interview and to determine if you would still like to participate in the phone call interview. Your participation in this survey is completely voluntary. This means that you do not have to participate in this survey unless you want to.

Approximately 6 subjects will enroll in this study. This interview is to help us learn more about your practice’s use of Health Information Technology or HIT to care for patients and run your business. This should take about 45 minutes. In some cases we will interview a provider and one of his/her IT staff. we can conduct the interviews together or separately depending on what you feel is best. In some cases we will interview just the provider representing a care site.

In terms of risks of participation, there is a small chance that some of the questions may make you feel uncomfortable. You don't have to answer those questions if you don't want to. In fact you don't have to answer any question that you choose not to answer. And that is fine. We will just skip that question and go on to the next one.

VERBAL consent

Your participation in this survey is voluntary. You do not have to answer any question you do not want to. Taking part in this survey is your agreement to participate

All the information I receive from you by phone, including your name and any other identifying information, will be strictly confidential and will be kept under lock and key. I will not identify you or use any information that would make it possible for anyone to identify you in any presentation or written reports about this study. If it is okay with you, I might want to use direct quotes from you, but these would only be quoted as coming from “a person” or a person of a certain label or title, like “one woman said.” When I finish with all the phone surveys from everyone who has agreed to participate, I will group all the answers together in any report or presentation. There will be no way to identify individual participants.

The only risk to you might be if your identity were ever revealed. There are no other expected risks to you for helping me with this study. There are also no expected benefits for you either and you will be compensated \$200.00 for your time.

Do you have any questions?

You can call me, Dr Jacquie Halladay, at (919) 636-0785 with questions about the research study. All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject you may contact, anonymously if you wish, the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Do you agree to be in this study? Y N (circle one)

- If participant answers “No”: “Thank you for your time.”
- If participant answers “Yes”: “Thank you for agreeing to participate in this follow-up interview.”
- To assist me in recalling the details of the interview, I have the option of audiotaping the interviews.
 - Consent to audiotape conversation: “Do I have your permission to create an audiotape of this conversation in order to better record your comments? If not, that is okay. We can rely on paper notes. All the information I receive from you by phone, including your name and any other identifying information, will be strictly confidential and will be kept under lock and key.”
 - If participant answers “No”: “Thank you. We will take paper-based notes. I will be asking you a series of questions about your practice’s use of health information technology. You can decline to answer any question at any time.”
 - If participant answers “Yes”: “Thank you. I will be asking you a series of questions about your practice’s use of health information technology. You can decline to answer any question at any time.”

Interview questions:

Non Billing related Communication needs with organizations external to the practice/site:

What organizations must you have electronic communications with in order to carry out your business?

- For instance do you use computers to directly communicate patient level data with satellite health care sites, centralized administrative sites, area hospitals, area nursing homes, prisons, health departments (for things like syndromic surveillance), schools, county or state facilities where patients reside or attend such as half way houses or institutions for people with certain disabilities or handicaps?
- What about Federal agencies such as the Bureau of Primary Health Care or other institutions that may require patient data in order to comply with Federal regulations that may or may not be involved in financial support you're your facility?
- Do you have electronic data needs relating to activities within the State Division of public Health such as those involved in Diabetes care (ADA), Wisewoman or BCCCP programs or Vaccine registries or administration?
- Do you have any non-billing data needs specific to working with your Medicaid patients or Medicaid Network organization staff such as case managers? Are there instances where veterinary surveillance data needs to be communicated directly to your office or provided from your office to external organizations?
- What other organizations do you need to communicate electronic to?
- Are there particular problems with any or all of these systems you described?
- **Patient demographic information:** Do you need to send data that reveals patient gender, race, ethnicity, language preference,?

Direct patient care

Before the visit:

- Do you use patient portals where patient can enter health data into a system prior to their actually coming to your office that you can review once they come in for an appointment? Do you use automated reminders for screenings that are due or appointment reminders?
- Do you use electronic means for scheduling appointments?
- Do you get electronic information prior to appointments from external institutions such as prisons or group homes?

- Do you get pre-visit data from home monitoring devices (glucometers, blood pressure monitors, scales), pharmacies (need for refills or data on medication fill rates/compliance)?
- Do you get pre-visit immunization data?
- Do you get electronic patient discharge data from hospitals or emergency rooms?
- Are you able to view and/or reconcile medication changes and clarifications at transition of care?
- Do you need to communicate with payers electronically when patient come in for office visits?
- If a patient may be eligible for insurance coverage and has not yet applied, do you have electronic means for obtaining insurance or coverage such as charity care for patients who come into your office and get assistance in applying for Medicaid, Medicare, charity care, self pay systems?

For direct office care:

- Do you do direct patient data entry at time of appointment,
- Do you use computerized order entry (CPOE)?
- Do you use any particular software that asks health related questions via a computer even if you staff enters the data for the patient?
- Do you need to be able to scan driver's licenses or photo ID's at the time of a visit?
- Do you scan in insurance information? Or need to scan patient appointments?
- What other electronic data needs to be communicated at office visits?

Provider visit data entry:

- Do you provide electronic materials that provide patient education on health topics, referral information (like e-referrals to quit lines to assist in smoking cessation)?
- Do you provide electronic information on medical procedures, informed consent, or use electronic patient signatures for patient consent. Do you have electronic communications with pharmacies; If so are you able to get electronic feedback about pharmacy errors, shortages, refills?
- Do you get electronic information about medication interactions and/or patient allergies?
- Do you need to process prior medication approval requests electronically?
- Do you have any telehealth technologies for communications with consultants in distant locations?

- Do you use any particular electronic means for translating health information into different languages or formats such as that for patients with hearing or sight impairments?

Post visit care:

- Do you need to provide electronic communications back to facilities or agencies involved in your patients care such as nursing home, schools, or prisons. Do you process referrals to other providers electronically?
- Do you get referral information sent back to you electronically?
- Can you track outstanding referrals electronically?

- Do you have patients who ask for electronic copies of their health information? Does this information also contain lab results, medical problem lists, and/or allergies?. Do you need to make these immediately available in electronic formats upon request?
- Do you have any secure patient- provider messaging capabilities?

Billing

- What electronic data system(s) do you use to process billing data?
- Does any of your billing data go to data warehouses?
- Do you use revenue management companies that mediate communications with payers such as Medicare?

Patient perceptions of health care IT needs.

- Do you think your patients view electronically available health data as advantageous to them? (i.e. results of sports physicals, immunization records)
- Do you think your patient feel the use of electronic systems makes medication prescribing safer and more error proof?
- Do you get any patient satisfaction data sent back to you electronically? If you have paper satisfaction surveys, do you then need to enter this data into electronic formats?
- Do you think your patients worry about the security of their electronic data? What are some of the things you hear from patients concerning data security?

Staff satisfaction.

- Do you think your staff feels that you are providing better care quality due to the use of electronic data in your office?
- Do you get any staff satisfaction data sent to you?

Providers concerns

- Are you concerned that your current electronic system has significant efficiency problems? Are you concerned that your current system would not work well if your patient volume increased?
- Do you think your location has the hardware (in the ground or via cables or satellites) it needs to send and receive electronic data efficiently?
- Does your system sometimes feel too slow? If so, does that impeded work flow?
- Are you concerned about the potential for HIPPA compliance infractions that may occur due to your electronic systems? Are there public relations concerns you have that are based upon your electronic systems?

Security specific questions

Some providers and stakeholders have concerns about the security of their patient level data as the use of electronic health records becomes more wide spread. Some are concerned about breach of patient confidentiality, the potential for identity fraud or concerns that their patients may not disclose as much health information as they used to when data was not electronic.

- Do you share any of these concerns?
- Are there any particular data security concerns that you have for patient level health information in your current systems?
- Did you have any data security checks run on your current system prior to implementing it?
- Did you have any real or potential problems with confidentiality breaches?
- Are you aware of any data security issues specific to rural providers?
- Have you ever felt the need to look into data security more so with your insurance carriers?
- Have you hired any particular consultants to assist your organization with data security?
- Do your patients discuss data security with you or your staff?
- Have there been any data security concerns with other organizations that participate with you in patient care such as payers or pharmacies?
- If you purchase a certified electronic health record application (such as CCHIT certified), would you feel the application would be secure?

Beginning in 2011, applications will need to pass specific security certification criteria.

- If you purchase a certified electronic health record application (such as CCHIT certified) that has passed this security certification, would you feel the application would be secure?
- Do you have any data back up system, how often do data back up procedures occur?
- Do you have a system for de-identifying data such as for reporting purposes or public health needs?
- Do you have particular data security concerns with programs that may be rolling out in the future, such as the “meaningful use of HIT” programs that Medicare is working on?
- Are there other concerns or issues you would like to share?

Thanks you for participating in this interview. I will share this information with the computer programming staff at NC State, the lead investigator whom is Dr. Laurie Williams. I can provide contact information for Dr. Williams if you would like.

If I have any points to clarify after my review of this interview are you okay with me communicating with you to help me clarify? This could be via e-mail or phone. If yes, is this the best contact information I have for you?? (describe phone number and/or e-mail address we have for each participant).

Jacquie Halladay, MD MPH.