THE ROBERTSON GROUP

PEER TECHNOLOGIES

Community Health Record Technical and Business Considerations

Purpose
This paper provides insight into the technology and business concerns and considerations resulting from the implementation of a community health record.

Definitions
For the purpose of this paper the following definitions will apply.

1. Community Health Records (CHR) – an electronic health record that is shared between and among a community of health care providers and payers.
2. Electronic Medical Record (EMR) - a patient's computer-based record or electronic health record. The primary consumers of the EMR are practitioners in hospitals, clinics, and physician offices.
3. Personal Health Record (PHR) – an electronic health record for patients' use.
4. EHR System – the computer based application within which an EMR and PHR reside together.

There are varying definitions for CHR. Identifying the meaning of CHR in the context of the audience for the EHR is necessary to fully understand the technical and business challenges posed by implementing and supporting a CHR. Determining this definition before contract negotiations with an EHR vendor is recommended to help inform the selection of a vendor who can meet your CHR needs short and long term.

For the purposes of this paper, CHR will be interpreted as an electronic health record that is shared among participating physicians and/or Independent Physician Associations (IPAs) members, local hospitals, and payers. Participation within the CHR is expected to occur in phases, starting with IPA members leveraging the nascent CHR to support their EHR System functionality, extending to hospitals who will integrate their existing systems with the CHR database, and finally payers who will also integrate their systems with the CHR database.

There are less complex definitions of CHR that IPAs and communities could adopt. For example, one simpler definition is "a CHR is a centralized database that a number of instances could attach to when searching for a patient's medical record information within a community."

With the exception of payers, this paper considers a CHR that does not limit participants viewing of patient data. However, physicians implementing an EHR will want to agree on the method of information sharing that will occur. The questions to be answered include, but are not limited to:

- Will all of the patient's medical record information be fully accessible to all physicians using the CHR?
- Will only selected information be shared e.g. problem list, medication list, allergies, and recent hospitalizations?
- If information is to be released, how will patient approval for the release be insured and documented?
- Will the EHR software allow a physician to actively authorize release to specified recipients? How will your EHR's software privileges help you configure the CHR for agreed upon sharing? What information will the patient have ready access to and how will it be provided?
- Will the community solution support a patient portal that the patient can access for retrieving and submitting personal health information?

Technical Considerations
From one perspective managing a community record is simpler and less expensive than managing disparate EHR systems, their associated databases and integration points; however, the inclusion of hospital and payer systems, and the necessity of integrating the CHR database with those systems is no simple task and will require a commitment of resources in indefinitely.

Integration/Standards
Integration, both initial and ongoing is expected to pose the greatest near term technical challenge to CHR success. With this in mind we would ask potential vendors to describe their integration strategy and standards support. Currently standards for interoperability are being developed and will become an accreditation standard for EHRs in the near future. We would not recommend that a client purchase an EHR that does not meet these new standards.

We would ask to understand which integration technologies the vendor was supporting i.e. do all integration points require hard coding or are enterprise application integration tools being used or considered for future releases.

With regard to standards we would request a development timeline and description of plans regarding the following:

1. Architectural Standards defining the process by which data is stored and shared.
2. Application Standards defining the way applications interact
3. Data Exchange Standards defining transaction instructions
4. Document Standards defining the type and structure of documents and metadata
5. Conceptual Standards providing rules to maintain data context across organization

Additionally, we would provide potential vendors with a list of systems to which the CHR will be integrated and ask for integration plans, timelines, and cost to connect to and maintain the connection to those systems. The ongoing cost of integration is one of the highest costs of maintaining an integrated CHR.

Records Management
We would request documentation regarding the vendors tools for records management within the CHR. We anticipate that privacy, doctor op out (divorce), patient op out, and patient notification activities will constitute primary records management tasks that will be complicated by the CHR. We recommend that all activities are addressed at the policy and procedural level prior to vendor selection.

We would also seek to understand the administrative burden resulting from these activities so that it could be represented in any cost models.

Migration Plan/Process
We would seek to understand any migration processes necessary to move between phases of the CHR vision. Specifically, we would want to understand the database configuration guidelines necessary to achieve the vision and how they could be incorporated into initial database architectures to avoid future migration efforts and rework.

Architectural Requirements
Finally, we would want to understand any architectural differences between the base EHR system and the system necessary to achieve the CHR vision. We would be interested in software, hardware, and configuration requirements.