Appendix B: Getting Ready: A Planning Checklist for Rural and Community Hospitals Considering Implementing Health IT

Getting Ready: A Planning Checklist for Rural and Community Hospitals Considering Implementing Health IT

This checklist is designed to assist leaders and stakeholders in rural and/or community-based hospitals to assess their level of preparation for the implementation of health information technology (IT), such as Electronic Health Records (EHR) and/or Health Information Exchanges (HIE). It addresses topics such as leadership, whom to involve, project participants, and several other dimensions of planning.

The checklist is not designed for the identification of health IT functions or products to be implemented

INTRODUCTION

This checklist is based on the experience of 88 grantees in the "Transforming Healthcare Quality through Information Technology" (THQIT) initiative funded by the Agency for Healthcare Research and Quality (AHRQ). These grantees received funding to support the installation and/or evaluation of health IT.

The checklist can be administered and interpreted multiple times throughout planning and implementation to gauge an organization's progress towards readiness for undertaking various components of the project.

The checklist can be used at any point in the process of installing health IT, although issues that are identified earlier are easier to address effectively. For this reason, the checklist may be especially useful if completed during the planning phase of the health IT life cycle. Ideally, the checklist should be completed by a wide range of the stakeholders involved in the planning, implementation, and use of the health IT system. You may also want to use the checklist to assess the project's increasing readiness as it progresses beyond the planning phase.

BACKGROUND

The THQIT grantees, many of whom were first-time implementers of health IT, received partial funding from AHRQ to assist in planning and/or implementing community-wide and regional health IT systems. In 2011, informed by their practical experience planning and implementing projects in the new world of health IT ushered in by HITECH, the grantees completed surveys and participated in qualitative interviews designed to elicit key lessons learned during their planning and implementation processes. These key lessons included identifying significant barriers and facilitators to health IT implementation.

This checklist is designed to enable an organization or collaboration to assess how well it is prepared to use these facilitators and overcome the barriers identified. The checklist focuses on key areas identified by THQIT grantees as being particularly important to successful implementation including leadership, project participants and planning (Table 1).

Table 1. Key areas and topics of checklist

Key Area	Topic
Leadership	Clinical, Administrative & IT support
	Project Stakeholders
	Project Champions
Project Participants	Characteristics
	Agreements/Commitments
Planning	Financial
	Project Team
	Care-Process (Workflow) Redesign
	Change Management
	Information Technology
	Patient Privacy and Information Security
	Implementation
	Training
	Assessment

This checklist complements the Rural Health IT Adoption Toolkit developed by the Health Resources and Services Administration (HRSA), which "provides users with a compilation of resources relevant to all stages of planning, executing, and evaluating the implementation of health IT": (http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/index.html). It also complements the AHRQ National Resource Center for Health IT's toolkit for HIE projects, which helps users devise realistic and achievable evaluation plans: (http://healthit.ahrq.gov/evaluation_toolkit).

CHECKLIST INTERPRETATION

This checklist does not produce a summary score by which the organization's level of preparation can be determined. Rather, the checklist is designed to enable individual organizations and collaboratives to evaluate their overall level of preparation, and to identify specific areas in which additional preparation may be required.

- Checklist items scored as "1" and "2" may need focused attention to enable a successful implementation. For example:
  - Do more resources need to be allocated to some of the items?, or
  - Can the timeline be lengthened to allow for more thorough preparation?
- Items scored as "3" may represent issues that put the success of the implementation at risk.

- For each "3", consider developing a plan for moving the item's score to a "4" or "5"

- Finally, consider diverting some resources from items rated as "5" to items rated "3" or lower.

OTHER RESOURCES

When applicable, the checklist provides Web links to reliable resources for additional information. These resources include other toolkits available on the AHRQ Web site, as well as *Effective Teamwork and Sustainability in Health IT Implementation*, a report which summarizes the findings and experiences of all THQIT grantees, and *Using Health IT: Eight Quality Improvement Stories*, a collection of success stories of several THQIT grantees. These resources provide examples and/or established processes for improving the level of preparation for the related checklist item. In combination, this checklist and the additional resources are designed to help organizations anticipate known barriers and facilitators in order to successfully implement health IT.

The Department of Health and Human Services is offering financial incentives ($44,000 through Medicare incentives or $63,000 per physician in the case of physician practices) to hospitals and doctors' practices that can achieve Meaningful Use of EHRs. See http://www.cms.gov/ehrincentiveprograms/ for details.

GLOSSARY OF TERMS

- Care-Process Redesign (also known as workflow redesign): transforming the way patients and clinicians work together to achieve improvements in care quality and costs, and patient outcomes.
- Project Participants: internal and/or external collaborations among different departments, hospitals, clinics, and other care-delivery and noncare delivery organizations.
- Adult Learning Theory: a theoretical framework for helping adults learn new skills or information. Trainings that utilize adult learning theory occur very close to project go-live ("just in time") and use scenario-based and learner-directed approaches to provide users with "just enough" detail to use the system as intended.

[NOTE TO AHRQ:

Links to relevant sections of the report *Effective Teamwork and Sustainability in Health IT Implementation* are shown within relevant sections of the table in yellow highlight. Page number references may have to be updated to correspond to the final report produced by MPR.]

INSTRUCTIONS FOR COMPLETING THE CHECKLIST

Please rate your level of agreement with each of the following statements by checking one response for each item. For items that do not apply to you, select n/a. If you would like to make specific notes about any item(s), do so in the notes field at the end of each section.

Health IT Project Description: _____

Project Scope: _____

Project Objectives: _____

Leadership	**1**	**2**	**3**	**4**	**5**	**n/a**
Administrative leadership (including Executives and Board of Directors) supports the project as a strategic priority. 1-not at all, 5-unanimously						
Clinical leadership (physicians and other clinicians) supports the project as a strategic priority. 1-not at all, 5-unanimously						
IT leadership supports the project as a strategic priority. 1-not at all, 5-unanimously						
Physician and other clinician champions from all project participants have been identified and have agreed to actively participate in project planning and implementation. 1-not at all, 5-unanimously						
Notes:						
Project Participants	**1**	**2**	**3**	**4**	**5**	**n/a**
All relevant project participants have been included. 1-strongly disagree, 5-strongly agree						
The project participants have a history of successful collaborations. 1-strongly disagree, 5-strongly agree Go to "Build Trust Between Partners," top of page 41.						
The project participants agree on project goal and main objectives. 1-not at all, 5-unanimously Go to "Finding the Unifying Factor, bottom of page 39.						
Levels of participant commitment (e.g., time, effort, monetary) have been agreed on. 1-not at all, 5-unanimously						

The proposed project participants compete with each other.* 1-aggressively, 5-not at all * Of course, many effective collaborations include active competitors; such competition is simply one of the project factors that deserves a thoughtful management plan.						
Project participants are well-resourced or experienced.* 1-none, 5-all Go to "Involve an Experienced Patient Care Delivery Organization," bottom of page 40. *Having well-resourced or experienced participants is helpful but not necessary; see Appendix C or http://healthit.ahrq.gov/THQITStoryRachman2012.pdf for an example of a successful partnership of resource-constrained organizations.						
The health IT project will compete for resources with other health IT projects, participants' needs, or governmental projects.* 1-definitely, 5-not at all *For example, project time lines may need to be adjusted if critical resources will be in short supply.						
A transparent, accountable process for continued interactions between participants has been agreed on. 1-not at all, 5-unanimously Go to "Build Trust Between Partners," top of page 41.						
Policies and procedures for adding new participants have been agreed on. 1-not at all, 5-unanimously						
Notes:						
Planning	**1**	**2**	**3**	**4**	**5**	**n/a**
Financial						
A realistic business case has been developed. 1-not at all, 5-thoroughly						
The cost of the project is based upon an understanding and scoping of requirements 1-not at all, 5-thoroughly						
The cost of the project is agreed on by the leadership of the project participants. 1-not at all, 5-unanimously						
The project participants agree on who will benefit from the implementation of the project. 1-not at all, 5-unanimously						

The project participants agree on who will pay for implementation and ongoing maintenance of the project. 1-not at all, 5-unanimously						
The project participants understand their liability and have obtained adequate insurance. 1-not at all, 5-completely						
Notes:						
Project Team						
The project participants have or can access the following skills (in bold) required for the project:						
Project management, including in-project and final evaluation. 1-not at all, 5-world class						
Clinical informatics: capable of matching IT functions to clinical and operational needs. 1-not at all, 5-world class						
Organizational change: capable of making systematic changes. 1-not at all, 5-world class						
Care-process (workflow) redesign: capable of analyzing and improving existing care processes (workflows). 1-not at all, 5-world class Go to Workflow Assessment for Health IT Toolkit: http://healthit.ahrq.gov/workflow Go to "Workflow Redesign," page 52.						
Vendor and/or consultants: the project management team is capable of managing vendors and/or consultants. 1-not at all, 5-world class Go to "How did Grantees Characterize their Relationships with Vendors…", page 33.						
The project team understands or has access to all relevant perspectives within the organization. 1-not at all, 5-thoroughly						
The project team can represent or access all relevant skills and people within project participants. 1-not at all, 5-thoroughly						
The project team has adequate decision-making authority within the organization. 1-not at all, 5-thoroughly						
Notes:						

Information Technology						
Project participants will use the same health IT applications or have the knowledge to create seamless interfaces between different applications. 1-none, 5-all Go to "Reducing the Financial Burden of Health IT," page 41.						
Project participants are committed to designing shared care processes (workflows). 1-not at all, 5-completely						
Notes:						
Patient Privacy and Information Security						
Leadership is committed to the privacy and security of patient information 1-not at all, 5-unanimously						
The project participants have the technical skills and resources to achieve patient privacy and information security. 1-not at all, 5-world class The project participants' privacy and security policies (e.g., opt-in versus opt-out) are in sync. 1-not at all, 5- completely aligned						
(Go to the Health Information Security and Privacy Collaboration Toolkit http://healthit.ahrq.gov/security_and_privacy_collaboration_toolkit)						
Project participants have developed shared policies and procedures for secure data sharing. 1-not at all, 5-world class						
Notes:						
Training (pre-implementation and continuing) and Go-live						
Resources for effective training are available (e.g., online learning, classroom instructors, shadow trainers). 1-not at all, 5-world class Go to "Training," page 46.						
The project team has knowledge of adult-learning theory. 1- not at all, 5-world class						

The project team has the skills to balance the benefits and risks of phased versus "big-bang" (i.e., all at once) implementations. 1-not at all, 5-completely Go to "Providing Opportunities for Shared Learning," page 42.						
Go-live personnel needs have been planned for. 1-not at all, 5-completely						
Notes:						
Project Assessment						
On-going project assessment has been planned and budgeted for. 1-not at all, 5-thoroughly Go to Health Information Exchange Evaluation Toolkit: http://healthit.ahrq.gov/tools_and_resources						
Final project assessment has been planned and budgeted for. 1-not at all, 5-thoroughly Go to AHRQ NRC Evaluation Toolkit: http://healthit.ahrq.gov/evaluation_toolkit						
Meaningful use criteria have been included in the assessment. 1-not at all, 5-thoroughly						
Notes:						

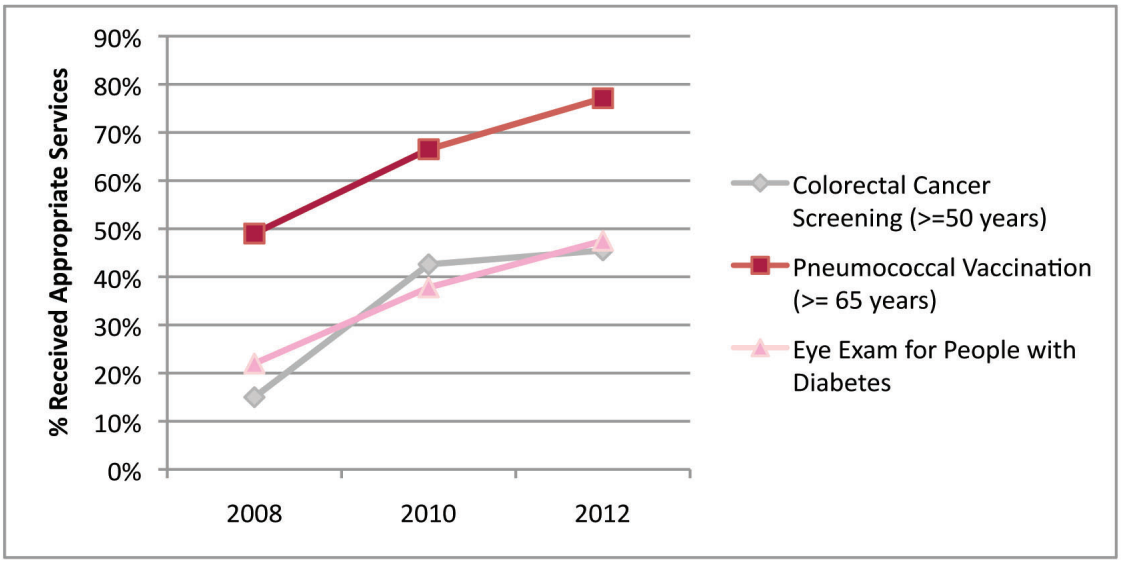
Partners Use Electronic Health Records to Steer Quality Improvement

A decade ago, the Alliance of Chicago Community Health Services considered the operational and clinical challenges ahead and identified health information technology (IT) as a critical area in which to build infrastructure. Although limited in financial resources, the Alliance and its four Chicago-based health centers that serve underserved populations made the most of electronic health record (EHR) functionality by creating a standard data infrastructure to capture, store, and analyze data to improve the quality of care delivered to patients. The infrastructure and implementation approach, designed years ago, has since expanded to 28 additional health centers, effectively extending its benefits to many others.

With support from the Agency for Healthcare Research and Quality (AHRQ) and in collaboration with General Electric, the EHR vendor, the Alliance and health centers deployed a customized EHR to capture point-of-care data. They developed EHR-enabled tools to provide evidence-based decisionmaking support to clinicians. They created an electronic data warehouse to organize and report data to identify gaps in care and develop programs to assist patients' self-management of chronic conditions, such as diabetes.

At one of the original centers, Erie Family Health Center, some outcomes measures have improved since it deployed the EHR and began using aggregated performance data in the form of "quality dashboards" to guide improvements in patient care. In the 5 years since implementation and the end of the grant, measures for the percentage of people receiving appropriate colorectal screening, pneumococcal vaccination, and eye exams have improved drastically (see Figure 1). Health center efficiencies clearly have also improved, as the EHR has enhanced workflow.

FIGURE 1. Family Health Center: Improvements in Rates of Recommended Procedures



Grant Title: Enhancing Quality in Patient Care (EQUIP) Project
Principal Investigator: Fred D. Rachman, Chicago, Illinois
Grant Number: This project was supported by grant number HS 015354 from 9/30/2004 to 8/31/2007
AHRQ Final Report: *http://healthit.ahrq.gov/UC1HS15354Rachmanfinalreport2007*

Implementation of health IT is not a start end process. It is constant, requiring lots of decisions to keep it viable.

ANDREW HAMILTON, RN, ALLIANCE CHIEF OPERATING OFFICER

The success of the Alliance health IT project has led to its adoption at 32 different health center organizations across 11 states. The new members and sites receive the same content and services as the original participants. According to Andrew Hamilton, Alliance Chief Operating Officer, the project's aim to spread the implementation of EHR and use of clinical decision support and performance measurement has succeeded beyond expectations.

Implementation and Results

The process of making the EHR useful to the Alliance health centers required employing an operational workflow at each center to encourage practical use of the EHR and its tools. This process included an implementation team, with its members involved in care delivery to vet the workflow, simulations to test the workflow, and a "dress rehearsal" before the system went live. At the final stage of implementation, the clinic closed for 4 hours and hired "patients" to test the new system and workflow.

Once the EHR system was in place, the Alliance health centers incorporated toolkits into their workflow and established processes for using the information collected through the EHR to improve care. One toolkit, UPQUAL (Utilizing Precision Performance Measurement for Focused Quality Improvement), summarizes on a single page a wide range of different clinical situations for a patient. For example, in the case of a 55-year-old woman, the tool provides information on her last mammogram and cholesterol screen, and prompts for new tests if needed. Dr. David Buchanan of the Erie Family Health Center confirmed that the tool eliminates the need to search through charts for information. If only a few minutes remain in a visit, he can spend that time more effectively in addressing follow-up issues.

Erie also uses quality dashboards to aggregate EHR data and set goals on quality for providers and the health center. Provider groups, such as the adult medicine team, set annual goals for a handful of quality indicators they view as important for patient outcomes. During the year, data on those quality indicators are presented at the provider level, and a small incentive is paid to high-performing providers. Erie also uses the quality dashboards to identify needed changes at the health center. In 2008, the health center decided that it needed to improve eye exams for diabetic patients because only 22 percent of patients who should have been getting exams actually were receiving them on time. Erie developed a program to expand its capacity for providing eye exams, including bringing an optometrist on site. As of February 2012, the number of diabetic patients receiving eye exams on time had increased to 47. percent (see Figure 1).

Sustainability and Future Direction

The success of the program has led to an expansion in the number of health centers that have joined the Alliance and implemented the EHR. New members have varied in settings and size, ranging from nurse-managed health centers housed in academic institutions to multispecialty health centers and mobile vans. The implementation, workflow redesign, and training processes developed for the original project have worked at all of these varied sites, demonstrating that the EHR and related tools and processes are applicable to varied outpatient health care settings. Although expansion to newer Alliance members often is grant funded at the outset by the Health Resources and Services Administration, the Centers for Medicare & Medicaid Services, or private foundations, the cost of the EHR eventually is incorporated into the general operational costs of the health centers. The mindset behind this decision by the centers to assume the costs for ongoing maintenance of health IT is indicative of what is required to sustain success in such endeavors—an understanding that health IT is not a one-time fix, but requires consistent and concerted efforts to keep it viable.

"Having providers pick the [annual] goals [on quality] makes a difference."

— DAVID BUCHANAN, MD, CHIEF MEDICAL OFFICER, ERIE FAMILY HEALTH CENTER