Meaningful Use and Critical Access Hospitals

A Primer on HIT Adoption in the Rural Health Care Setting

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This publication lists non-federal resources in order to provide additional information to consumers. The views and content in these resources have not been formally approved by the U.S. Department of Health and Human Services (HHS). Listing these resources is not an endorsement by HHS or its components.

Introduction

In the fall of 2007, the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Office of Rural Health Policy (ORHP) utilized $25 million in one-time funding to support 16 rural grantees to develop and implement HIT pilot networks in an 18-month timeframe. OHRP funded grantees through its Medicare Rural Hospital Flexibility (Flex) Critical Access Hospital (CAH) Health Information Technology (HIT) Network Implementation Program, which promotes the implementation of HIT in CAHs and their associated network of providers in States that are current Medicare Flex grantees.The grantees were charged with designing, creating, and implementing functional pilot networks to improve coordination of care in their communities, and provide lessons learned for future providers and networks in adopting HIT.

This health IT (HIT) adoption primer (Primer) emerged from a larger evaluation of the Medicare Rural Hospital Flexibility (Flex) Critical Access Hospital (CAH) Health Information Technology (HIT) Network Implementation pilot program. The Flex CAH HIT program promoted the implementation of HIT in CAHs and their associated network of providers in States that are current Medicare Flex grantees. The grant program funded grantees to establish HIT systems, but allowed them to use these funds in a flexible way. As that program finished, the 2009 American Recovery and Reinvestment Act (ARRA or Recovery Act) was passed and granted authority to the U.S. Department of Health and Human Services (HHS) to make HIT incentive payments, authorize States to facilitate and expand health information exchange to enable meaningful use, and fund regional HIT extension centers to support electronic health record (EHR) adoption and meaningful use of those technologies in health care settings across the country. As a result of this fortuitous timing.

HRSA's Office of Rural Health Policy sought to provide a broad overview Primer for HIT adoption in CAHs based on the key lessons learned from the CAH HIT program in the context of ARRA meaningful use. The Primer focuses on EHR adoption as many Flex CAH HIT grantees implemented EHR systems as part of their projects, and the focus of much of ARRA's provisions and supports for HIT in individual practice settings, including CAHs, center on EHRs. Information provided in this Primer is based on the final definition of meaningful use of an EHR issued by the Centers for Medicare and Medicaid Services (CMS) on July 28, 2010.

For the purposes of this Primer, EHR is defined as an often complex combination of IT applications which together make up the EHR environment in CAH settings. The EHR environment can include but may not be limited to a clinical data repository, clinical decision support system, controlled medical vocabulary, computerized provider order entry, pharmacy, reference labs, imaging and clinical documentation applications, or a combination thereof. Other key terms are defined throughout the Primer in context.

Rural Health and HIT Background

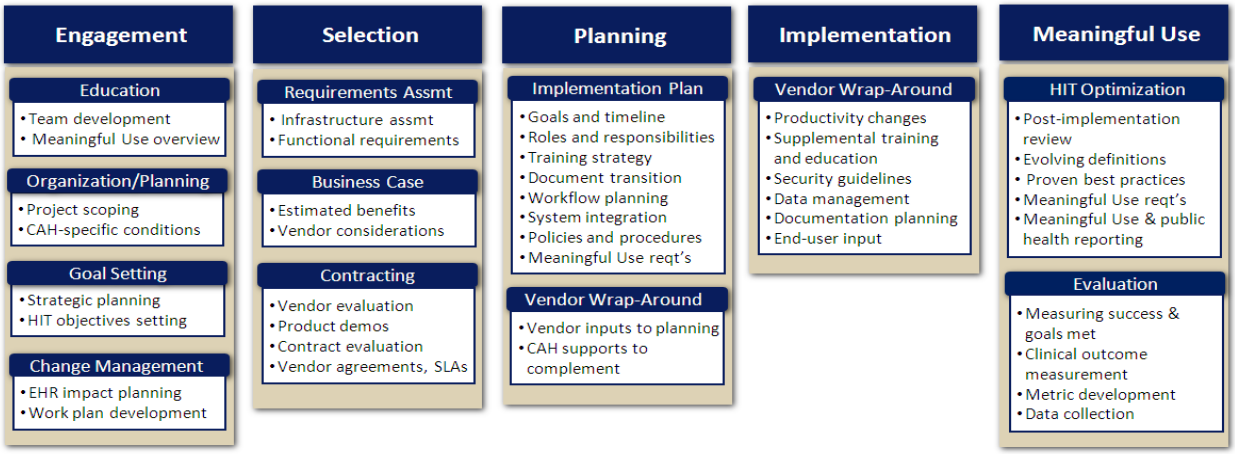
Advances in information technology (IT) hold great promise for helping rural residents and rural providers transform the care they are able to provide patients. Health-specific IT has the potential to

help remote communities coordinate care, improve disease surveillance, target health education and compile regional data, all activities that can improve health care and health nationwide. Nearly 50 million Americans live in rural areas and face challenges in accessing high quality health care.[1] This represents the vast majority of the approximately 62 million Americans that live in communities with shortages of primary care providers.[2] Further, over 95 percent of critical access hospitals (CAHs) use administrative health IT systems but less than one-third use health IT for clinical care.[3] As policymakers, health care practitioners, and the public increasingly demand more widespread use of EHRs and HIT to increase efficiency, enhance patient safety, and improve coordination of care, timely, concise, and relevant introduction materials used to prepare providers and staff for the adoption process are crucial. EHRs and other HIT are tools to facilitate a culture of health data management and sharing – hospital-wide, coordinated change to move from paper to digital records and information sharing can affect a tremendous impact on patient care and outcomes. This is of particular importance in rural settings where these challenges are amplified.

Goal of Primer

An initiative to adopt an IT-based application or to design a new system requires the identification of the specific IT needs of CAHs, an understanding of the existing infrastructure in terms of technology, and a strategy to increase technology acceptance and diffusion. [4] This Primer is geared toward HIT adoption, not simply implementation. The goal is not to "turn on" a specific application but rather to adopt chosen technology in a way that aids users (providers and supporting staff) in deriving value from the application; ultimately improving the quality and cost efficiency of care delivered.

This Primer is focused on providing CAHs with an introduction on a broad spectrum of HIT adoption issues and considerations, in addition to identifying open-ended questions that can help CAHs further define their own roadmap for adoption. Topics include evaluating organizational readiness, assembling multidisciplinary teams, reviewing current processes and identifying goals and objectives necessary to effectively prepare the CAH to manage the change process associated with HIT



[2] Ruddy, G., Fryer, G., Phillips, R., Green, L., Dodoo, M., &McCann, J. (2005). The family physician workforce: the special case of rural populations. *American Family Physician 72*(1), 147. Retrieved from http://www.graham-center.org/online/graham/home/publications/onepagers/2005/op31-rural-populations.html

[3] U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality, Office of Rural Health Policy: Rural Health IT Adoption Toolbox

[4] Current status and perceived needs of information technology in Critical Access Hospitals: a survey study Informatics in Primary Care 2007

adoption. Additionally, this Primer addresses vendor and product selection – designed to challenge CAHs to review HIT needs and current capabilities, to then solicit products and vendors that will suit organizational needs and the provision of tools and services supporting the negotiation of appropriate contract terms to foster an effective CAH / vendor relationship.

In each adoption stage described, sample questions and high-level processes and possible tools are included only as a starting point. Each stage is critical to ensure CAH staff develop a complete HIT roadmap specific to their own needs, using best-practice tools and processes to guide their work.

Meaningful Use

The American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act) was signed into law by President Obama on February 17, 2009. The law established programs under CMS to provide incentive payments for the "meaningful use" of certified electronic health records (EHR) technology. The incentive payments are intended to serve as incentives for Eligible Providers (EPs) and eligible hospitals to adopt and meaningfully use certified EHR technology. In ARRA, Congress specified three types of requirements for EHR Meaningful Use:

1. Use of certified EHR technology in a meaningful manner (such as electrontic prescribing);
2. Use of certified EHR technology connected in a manner that provides for the electronic exchange of health information to improve the quality of care; and
3. Submission of clinical quality measures and such other measures selected by the Secretary of HHS.

A final definition of Meaningful Use of an EHR, along with the requirements to demonstrate Meaningful Use, was issued by CMS on July 28th, 2010. This final definition included 15 core objectives and a menu set of 10 objectives of which the 5 must be chosen for Eligible Providers. For Eligible Hospitals, 14 objectives are core set with a menu set of 10 objectives of which 5 must be chosen. The objectives range from electronic eligibility verification to use of computerized provider order entry (CPOE).

CMS has planned a phased approach to Meaningful Use, consisting of the following stages:

Stage 1: Capture data in a coded format and begin to use and exchange data.

Stage 2: Expand upon the Stage 1 criteria in the areas of disease management, clinical decision support, medication management, support for patient access to their health information, transitions in care, quality measurement and research, and bi-directional communication with other providers and public health agencies.

Stage 3: Achieve improvements in quality, safety and efficiency, focusing on decision support for national high priority conditions, patient access to self management tools, access to comprehensive patient data through patient-centered health information exchange, and improving population health outcomes.

At their most basic, Stage 1 is about digitization of health records, Stage 2 expands this digitization to quality measurement, clinical decision support, and information exchange, and Stage 3 to improving health outcomes for both patients and populations.

Stages of Adoption

Engagement

Engagement is the essential first step to educate providers and supporting staff on HIT adoption. The first phase of Engagement can be called "preparing the ground" where CAHs consider the culture changes, outreach, and education helpful to prepare staff for HIT implementation. Discussions with staff about the benefits of adopting a given technology, surveys of staff to understand their level of computer literacy and basic computer training for all staff can help to "prepare the ground" in the CAH and generate excitement and acceptance of the technology and adoption process.

The next phase of Engagement includes identifying roles and responsibilities, current processes, goals, and objectives to develop targeted redesign strategies to support and prepare for the change process within the CAH. In developing a complete adoption plan, CAH, vendor, and any support staff (consultant, regional extension center (REC[5]) staff, etc.) roles and responsibilities should be defined for each stage. Within the CAH, potential overall roles to be assigned may include:

- **Project Leader / Adoption Manager:** CAH staff member responsible for the successful adoption of the selected HIT. The project leader serves as the chief planner, convener, coach, score keeper, and cheerleader. They are responsible for developing the overall plan (with input and buyin from all parties), then managing the execution of the plan while keeping all engaged and productive.
- **Clinical Champion:** Clinical staff member responsible for leading the CAH on developing new clinical processes or revising existing processes for a successful implementation. This may include making clinical decisions about implementation. It is recommended that a health care provider (MD, DO, RN, etc.) fill this role.
- **Systems Administrator / IT Director:** Dependent upon the technology to be implemented, a CAH may want to designate a staff member(s) as the "go to" person for troubleshooting problems during and after implementation. These individuals should be on-site daily and readily available to all staff, and may be responsible for unlocking accounts, resetting passwords, resolving problems, and providing guidance on general use of the chosen application.

[5] Health Information Technology Extension Program information: http://healthit.hhs.gov/portal/server.pt?open=512&objID=1495&parentname=CommunityPage&parentid=58&mode=2&in_hi_userid=11113&cached=true

Additional considerations during Engagement include but are not limited to:

Education

- Who are the key stakeholders in this project? How can they be engaged?
- What are some proven ways of achieving buy-in from staff?
- Certification of EHR Technology
- Meaningful Use criteria and program overview.
- Gather input from key stakeholders – what are organizational/departmental needs?
- High-level budgeting and pricing estimates.
- Identify opportunities for collaboration / assistance, such as incentive programs, support services (RECs).

Organization and initial planning

- Is the CAH ready to install a new clinical system?
- What kind of technical support does the project require? Does the CAH have staff to support such a project (see suggested roles above)?
- What are the specific functionalities needed in (for example) an EHR?
- What considerations need to be made for affiliated clinics?

Goal setting and change management

- How does this HIT project fit into the CAH's broader strategic plan?
- What business need does this project address? What are reasonable expectations for the outcome of this project?
- HIT impact planning – create relevant process flow mappings and change management plans.
- Assign responsibilities and establish a work plan and timeline.

Selection

Selection includes a comprehensive review of the CAH's technology infrastructure to identify HIT products that support CAH goals, facilitate expedient implementation of Meaningful Use functionalities, and implement tools and services supporting the negotiation of appropriate contract terms to foster effective CAH / vendor relationships. Additional considerations during Selection include but are not limited to:

Requirements assessment and building a business case

- Conduct a technology infrastructure assessment to determine what infrastructure and hardware needs should be considered.
- Data management – what are the disadvantages and advantages of ASP vs. locally hosted model?

- What vendor / product considerations are unique to your CAH and how can those considerations best be managed?
- Vendor considerations – in particular, Meaningful Use-certified vendors and products.
- HIT requirements definition – to be carried forward in any request for information or proposals (RFI or RFP) released to inform selection, and in specific vendor / product negotiations.

Due diligence and contracting

- Find and modify or develop vendor / product evaluation tools that include defined requirements.
- Follow up with formal demos and site visits to verify information.
- Assessing, writing, and negotiating the vendor contract, including service-level agreements. Tie payments to critical milestones, i.e. 2011 Meaningful Use criteria as a contract requirement. This is an excellent area to contact your local REC for applicable resources.

Implementation Planning

The planning stage is specific to preparing for implementation or HIT go-live. Significant planning should have already taken place prior to this stage and in particular, ahead of vendor selection. This stage allows CAHs to build change management strategies to develop transition plans which allow for efficient technical and operational integration of the selected HIT. Consideration of vendor "wrap-around" is key at this stage– the CAH / vendor contract should specify what pre-implementation guides, inputs and resources are provided by the vendor to support the HIT implementation. Additional considerations during Implementation Planning include but are not limited to:

Implementation plan

- Review existing step-by-step approaches to implementing an EHR and other software systems and adapt for your CAH's purposes.
- What training materials and strategies are available from the vendor, government resources, or other best practices?
- What document transition and workflow planning processes (e.g. new and improved workflows) need to be mapped out?
- What policies and procedures need to be revised / developed within the CAH?
- In conjunction with vendor, assign responsibilities and establish work plans and timelines.
- Keep Meaningful Use requirements in mind during this planning.

Implementation

Implementation efforts on the part of the CAH should be seen as critical supports to "wrap-around" those provided directly by vendors. This will help ensure product architecture aligns with the CAH workflows, is designed to support identified goals and objectives, and that user training is adequate to support effective and expedient HIT use. Additional considerations during Implementation include but are not limited to:

Implementation vendor wrap-around

- Prepare for reduced productivity, due to staff "learning-curve" as implementation and training commence.
- Consider the training and educational needs of CAH staff.
- Develop a system for end-user input and feedback, potentially separately from a vendor's help desk or similar feature.
- Consider supplementary training modules; i.e. refresher courses, additional training time for indicated staff, modules covering material not addressed by the vendor's training.

Meaningful Use and Evaluation

Meaningful Use activities support providers as they begin evaluating and leveraging HIT tools (not limited to EHRs) to actively manage individual patients and patient populations, and improve business operations, care delivery, and health outcomes. Additionally, it is at this point that providers need assistance to receive available Medicare / Medicaid incentive payments and potentially additional pay for performance programs. Additional considerations during Meaningful Use and Evaluation include but are not limited to:

HIT optimization

- Conduct a post-implementation review.
- Designate one person to stay apprised of changing Meaningful Use objectives, related ONC / HHS / CMS rules, reporting, certification and standards requirements.

Evaluation

- How is the CAH measuring success? Has the implementation allowed the CAH to achieve defined goals?
- How does the CAH measure and improve clinical processes and outcomes?
- What sorts of metrics assess quality improvement?
- What sorts of metrics are most appropriate for rural ambulatory settings?
- What sorts of metrics are most appropriate for rural inpatient settings?
- How can you successfully create benchmarks and collect and analyze data?

Helpful Resources

Agency for Healthcare Research and Quality (AHRQ) National Resource Center

- **AHRQ Health IT Tools. Retrieved from**

http://healthit.ahrq.gov/portal/server.pt?open=512&objID=919&parentname=CommunityPage&parentid=9&mode=2&in_hi_userid=3882&cached=true

Health Resources and Services Administration (HRSA)

- **HRSA Rural Health IT Adoption Toolbox. Retrieved from**

http://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/index.html

National Openion Reseach Center (NORC), Walsh Center for Rural Health Analysis

- **NORC**, (2006, August). *Roadmap for the Adoption of Health Information Technology in Rural Communities*. Retrieved from

http://www.norc.org/NR/rdonlyres/6A09114C-1B4D-4834-A942-8D6E0EDB799B/0/HIT_Paper_Final.pdf

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Office of the National Coordinator for Health Information Technology (ONC)

- **ONC**. *Electronic Health Records and Meaningful Use*. Retrieved from

http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__meaningful_use_announcement/2996

Centers for Medicare and Medicaid (CMS) EHR Incentive Program

- **CMS.** *The Official Web Site for the Medicare and Medicaid EHR Incentive Programs*. Retrieved from

http://www.cms.gov/EHRIncentivePrograms/01_Overview.asp#TopOfPage