

HIT Standards Committee Implementation Workgroup

Written testimony (panel 5-b)

Joel C. Berman, MD, CMIO; Josie Bendiks

Concord (NH) Hospital

Biographies

Joel Berman, MD, a family physician for 27 years, has served as Concord Hospital's full-time Chief Medical Information Officer since 2007. Josie Bendiks has been Concord Hospital's Director of Clinical Information Systems since 1998.

Introduction

Concord Hospital embraces the objectives of HITECH. We would pursue these goals even in the absence of financial incentives. Additionally, we believe that the achievement of **meaningful use** should:

- Minimize data entry burdens on providers.
- Integrate information between applications and across transition points.
- Minimize the risk that institutions will choose expedient short-term solutions rather than invest in longer-term strategies that are more likely to improve quality and patient safety.

In the spirit of brevity, we have not included talking points that other panel participants have identified in their written testimonies. We wholeheartedly endorse many of their points, most emphatically (1) the disproportionate degree of difficulty of the inpatient quality measures in comparison to other core requirements; and (2) the negative ramifications of requiring that hospitals must own certified products for all measures including those they have chosen to defer.

Testimonial summary

- Concord Hospital has received recognition as a regional and national leader in applied clinical informatics.
- On a percentage basis, Concord Hospital's investment in information technology is 25% greater than the national median for hospitals seeking Most Wired status.
- Concord Hospital has been proactive in planning for HITECH. Shortly after the signing of the Act, we deployed a ten-step institution-wide implementation plan that elevated the attainment of FY 2011 attestation to the highest organizational priority level. Our inpatient vendor endorsed and publicized our plan as a model for their other US clients.
- Concord Hospital is well positioned to achieve EP attestation in 2011 for our employed physicians.
- Nonetheless, we have postponed seeking EH eligibility until 2012 because we believe some of the EH solutions available to us in 2011 are not mature enough to be used in a sufficiently *meaningful* way.
- We believe that if Concord Hospital cannot achieve attestation in FY 2011 in a way that consistently advances the meaningful use of our clinical information systems, few other hospitals of equivalent size and resources will be able to do so.

Background

• Hospital description

- Concord Hospital is a 230 bed acute care hospital and regional medical center in New Hampshire's state capital. In 2009, we had 17,194 admissions. Our ED, the busiest in the state, had 68,624 visits. With over 2600 full-time employees, we are the biggest private employer in Concord. We are one of two trauma centers certified by the American College of Surgeons in New Hampshire (the other is Dartmouth-Hitchcock Medical Center). Concord Hospital is the primary site of the New Hampshire Dartmouth Family Medicine Residency program.

• Demonstrated health IT competencies:

- For 8 of the previous 9 years, Concord Hospital has been named either a Most Wired Hospital (5 years) or Most Wired Small and Rural Hospital (3 years).
- 85% of the residents of Merrimack County have outpatient electronic medical records. Since 1999, Concord Hospital's primary care providers have customized the EHR to leverage this broad penetration into sustained, measurable improvements in outpatient quality indicators. Examples:
 - First medical group in New Hampshire to achieve NCQA Diabetes Recognition. Currently 50 of the 97 NCQA-recognized providers in New Hampshire are on the Concord Hospital medical staff.
 - First medical group in New Hampshire to achieve NCQA Heart Stroke recognition.
 - Attained American Cancer Society's goal of 75% screening rate for colorectal cancer 6 years ahead the Society's 2015 target date.
- In 2008, our 4-member Physician Informatics team received the AMDIS Award for Excellence, Outstanding Achievement, and Special Recognition in Applied Medical Informatics.
- Concord Hospital has been bar coding medications since 2000. Currently, 98% of all inpatient meds are delivered via closed loop administration.
- In 2007, Concord became the first New Hampshire hospital to implement CPOE. Our inpatient providers currently enter 85% of eligible orders electronically.
- These combined high percentages for both medication bar coding and electronic order entry place us near the top of the 2010 Most Wired survey's Medication Safety Matrix (see page 5).
- In the 3 years that our inpatient vendor has sponsored its annual "CPOE Success" competition, Concord Hospital has won the award twice.
- Concord was one of three North American Hospitals with more than 200 beds to receive an award from the North American Thrombosis Foundation in 2009 for VTE prevention. (The first-place winners were Johns Hopkins and UCSD).
- Concord Hospital was the recipient of our outpatient vendor's 2005 Award for Excellence in Clinical Outcomes Research, and our national EHR user group's 2005 Award for Practice Transformation using the EHR.

- At the end of its accreditation survey in 2010, the Joint Commission commended Concord Hospital for “utilizing a university-level intellectual approach to achieve data-driven improvements in outcomes and patient safety”.
- **Level of IT Investment:**
 - In FY 2009, Concord Hospital’s ITS operating expenses comprised 3.8% of the hospital’s overall operating expenses, compared with medians of 2.8% among Most Wired hospitals and 2.7% among all hospitals applying for Most Wired Status. This 25% differential is primarily due to our extensive investment in human capital, which includes New Hampshire’s first CMIO as well as a full-time Director of Nursing Informatics.
 - The CPOE implementation team is comprised of 13 FTEs, an unusually large human resource allocation for a hospital of our size.

Primary talking point

- Despite our clinical informatics successes and financial investments in IT, CH has chosen not to apply for EH attestation in 2011.
- Current challenges:
 - In contrast to our outpatient EHR, which is a mature wrap-around product, our inpatient clinical applications are modular, relatively immature, and less than completely integrated. We believe that this reality is not unique to Concord but is the norm for most US hospitals.
 - HITECH requirements are driving our inpatient vendor to create additional modules in an unrealistically compressed time frame (examples: medication reconciliation; discharge instructions; longitudinal medication, allergy, and problem lists). As the testimonies of other panelists point out, the typical lifecycle from conceptual design to fully functioning product is years, not months. First iterations of vendor solutions are virtually never ideal and often not as functional as hoped for by vendors or as expected by clients. Specifically, we find as unrealistic the compressed time line between the anticipated release of Stage 2 final rules (summer 2012) and the start date for Stage 2 eligibility (October 1, 2012). This does not give vendors adequate time to develop and implement their products, nor the end user sufficient time to implement and adapt these new products to their local environments.
 - Because first versions of new “solutions” often do not work as designed, they frequently impose additional work flow burdens on providers. When released before achieving a minimum threshold level of functionality, these products can erode physician motivation to take the extra steps necessary to improve clinical quality and safety. Like most other organizations, we have learned that physician motivation and engagement is critical to the success of initiatives as transformational as HITECH.
- Expedience vs. best long-term solution – inpatient Problem List as example.

- In distinction to our outpatient EHR, where providers have been capturing problems in discreet formats for more than a decade, our inpatient diagnoses are currently codified via back-end abstraction.
- Our inpatient vendor's Problem List solution, which will be available to us in the near future, allows providers to push structured diagnoses from our CPOE product to our longitudinal health repository. However, this repository (which also includes medications and allergies) does not yet interoperate with our outpatient EHR, which contains the medical records of 85% of Merrimack County residents.
- Our experience with our outpatient EHR has taught us that to be *meaningful*, a longitudinal problem list (or med list or allergy list) requires ongoing maintenance as well as availability across venues of care. While problem list maintenance is challenging enough in the outpatient environment, where providers "live" all day in their EHRs, it is daunting in the inpatient environment, where there is no obvious longitudinal "owner" of a patient's clinical lists.
- To seek EH attestation in 2011, we could have chosen the easier, clinically *less meaningful* solution (our vendor's currently non-interoperable inpatient problem list).
- Instead, we chose to become a pilot site for a collaborative initiative with our inpatient and outpatient vendors that will provide interoperability, allowing us to use our (maintained) outpatient problem lists as the foundation for our inpatient lists. The timeline for the development of this application will necessarily push our 90 day Stage 1 reporting period into FY 2012.
- We are making the decision because we believe the above strategy offers a more *meaningful* way to advance quality and patient safety.

Value and quality of ONC and CMS communications

- Concord Hospital readers found the 864-page Final Rule to be heavy reading. Its inclusion of iterative commentary, while instructive, often seems Talmudic in its complexity. The document's length, absence of indexing, and lack of section headers render it a difficult reference when we are searching for definitive answers to specific questions.
- We have frequently sought clarifications through CMS websites, webinars, and conference calls. Despite the plethora of options, we still find that many measures remain open to interpretation. Example: what are the required elements for the EP clinical summary? The final rule gives one answer, while the recently offered Health IT Certification course suggests a different one.
(www.healthitcertification.com/meaningful_use_course.php)



Medication Safety Profile

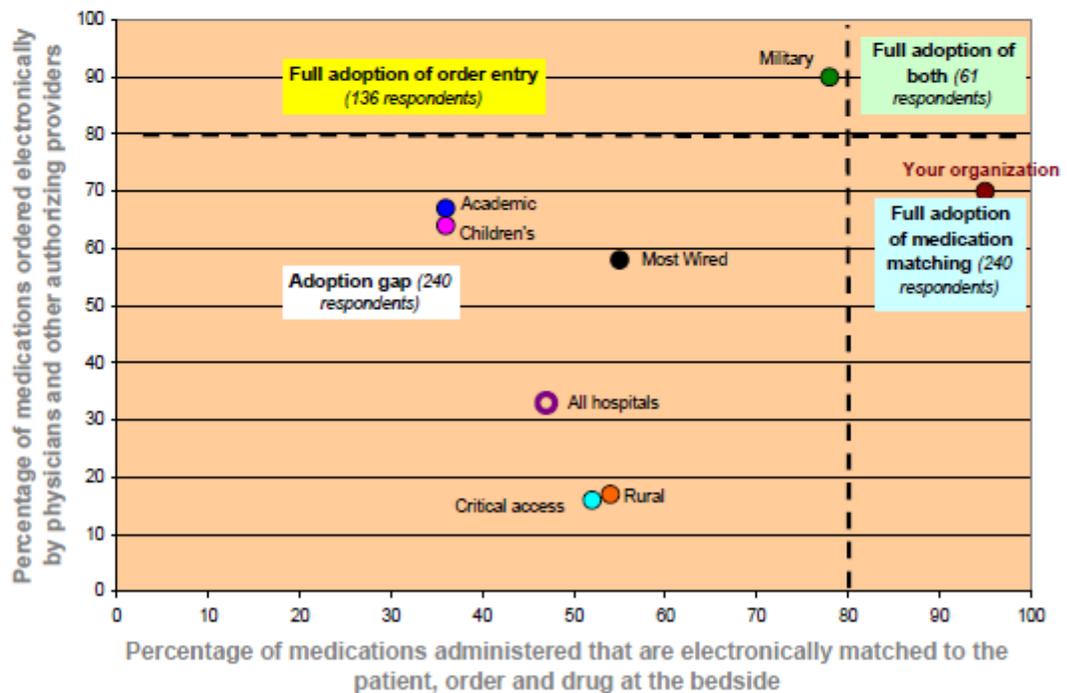
Electronic medication management is considered one of the fundamentals of using information technology to improve care. Yet, a large number of organizations do not have their physicians and other authorizing providers (physician assistants, nurse practitioners or other independent practitioners) order medications electronically nor use IT at the bedside to ensure safe administration.

This chart shows your organization's adoption rate of physician and other authorizing provider electronic order entry and bedside electronic medication management. For this analysis, full adoption of electronic order entry is defined as at least 80 percent of orders entered electronically by physicians and other authorizing providers. Full adoption of medication matching is defined as at least 80 percent of the doses administered matched to the order, patient and nurse at the bedside using bar coding or RFID. The chart shows the number of survey respondents falling into each of the resulting four quadrants. The averages for 7 benchmark groups also are plotted on the chart.

Organizations with a low percentage of medications matched electronically to the patient, order and nurse at the bedside are at greater risk for administration errors, while organizations with a low percentage of physicians and other authorizing providers ordering medications electronically are at increased risk for ordering errors from written and verbal orders.

2010 Medication Safety

Full adoption of IT tools for medication safety. Full adoption is defined as 80% usage.



Source: Hospitals & Health Networks Most Wired Survey and Benchmarking Study, 2010