The New Healthcare Technological Era

Implications for Long Term Care

Online Resources at:

www.nursinghome.org/pro/HIT/hit.html

Thursday, Sept. 16, 8 – 9:30 a.m. (1.5 CEs)

Speakers

- Steve White, CIO, *Illinois Council on Long Term Care*
- Sean Spears, Regional Sales Manager, *Keane Care, Inc.*
- Dave Wessinger, CTO, *Point Click Care*

Acronyms:

➢ **ARRA** *American Recovery and Reinvestment Act (*mandates system implementation, but still pending for LTC)

➢ **EHR** *Electronic Health Record (*chart*)*

➢ **HIT** *Health Information Technology (*computers*).*

➢ **HIE** *Health Information Exchange (*share health information locally*)*

➢ **NHIN** *National Health Information Network* (share health information nationally by connecting HIEs*)*

➢ **MU** *Meaningful Use (*actually use it fully and achieve specific goals)

➢ **ROI** *Return on Investment (*forecasting the profitability of the adventure)

The Clinical Technology Era

- An explosion in clinical software systems **capabilities**.
- Advent of "**anything-anywhere**" technology where just about any device can be computerized and wirelessly communicate with your clinical systems to provide information and its location. Also **Telemed** system adoption.
- Improvements in the clinical **users experience** via better usability and efficiency of mature clinical software systems.
- Utilization based pricing coupled with hosted systems improves access through **lower cost implementation**.
- ARRA Legislation's (pending for LTC) **certification adds value** to systems and **implementation mandate and incentives drive adoption** of clinical systems.
- National Health Information Network (**NHIN**) **adds value** by giving providers access to everyone's health information.

ARRA Legislation
Driving EHR Adoption

- **ARRA**: The American Recovery and Reinvestment Act of 2009

- Includes billions of dollars in Medicare and Medicaid incentive payments to providers for the "**Meaningful Use**" of **Certified** health IT products.

Meaningful Use

- Congress specified **three <u>types</u> of requirements** for meaningful use in priority order:

    1) Use of **certified EHR** technology in a **meaningful manner for a initially selected number of functions** (for example, electronic prescribing);

    2) That the certified EHR technology is connected in a manner that provides for the **electronic exchange of health information (HIE)** to improve the quality of care; and

    3) That, in using certified EHR technology, the provider **submits to the Secretary information** on clinical quality measures and such other measures

What does ARRA's meaningful use of certified EHR technologies and participation in HIE
mean to nursing home providers?

- Earn Medicare and Medicaid incentive payments and avoid penalties by demonstrating meaningful use of a certified EHR technology.

- Certification adds value because the software performs to a standard level which dramatically improves implementation outcomes and reduces variability in capabilities between systems.

- Participation in HIE adds value to your software installation thru **interoperability** that makes patient information electronically available where it's needed, when it's needed, and by whom it's needed.

The ARRA EHR Meaningful Use Incentive **and** Penalty Program

- **Incentive Payment Program** begins **January** 1, **2011 for hospitals** to implement and meaningfully use certified EHR systems. **Pays between 10% to 30% of average implementation costs. Scales down over four years.**

- Beginning **October 1, 2014** any hospital that **cannot demonstrate meaningful use of certified EHR technology – will receive less than 100%** of the Medicare or Medicaid fee schedule. **Scales up over time.**

Standards and Certification

- Certification body CCHIT has been working on Long Term And Post Acute Care (**LTPAC**) standards for certification for **well over a year now**.

- **When certification is ready, nursing homes can be required to participate** in ARRA's program and incentives.

Health Information Exchanges (HIE)

What is a Health Information Exchange?

- In nursing homes, a Health Information Exchange (HIE) may include on-line access for referrals, laboratory data, radiology data, patient consults, patient history from other settings, physician and/or pharmacist access to EHR, pharmacy data, governmental access and/or HIE with patients/caregivers.

Why build HIEs?

- HIE makes all relevant patient information available where it's needed, when it's needed, and by whom it's needed.

National HIE?

- The National Health Information Network **(NHIN) is a "network of networks**," that is, the **NHIN will provide a nationwide network of local, regional and nationwide HIEs**.

Where Are We at Now?

Raise you hand if you have any clinical software or systems in use <u>or</u> are currently in the process of purchasing or implementing one?

Illinois LTC HIT Survey (9, 2010)

Q: Do you have any **clinical software or systems in use** (not MDS) or are currently in the process of purchasing / implementing one?

YES 40.8%
NO 59.2%

- **Up 10%** from last year.
- Still **a long way to go**, but there are signs of significant progress.
- **Naturally reaching a tipping point** with an acceleration in HIT implementation growth.
- **This much progress in Illinois, without incentive payments, grants or penalties suggests that some level/type of positive ROI is already occurring!**

States can, and some have already mandated EHR in Nursing homes

In 2007, the **Minnesota Legislature mandated that all Minnesota health care providers** must have an interoperable electronic health records (EHR) system in place **by 2015**! **By 2008, 40%** of the State's Nursing homes were well on their way, <u>without incentives</u>.

Figure 1: **EHR** Implementation Status of Minnesota Nursing Homes (2008)
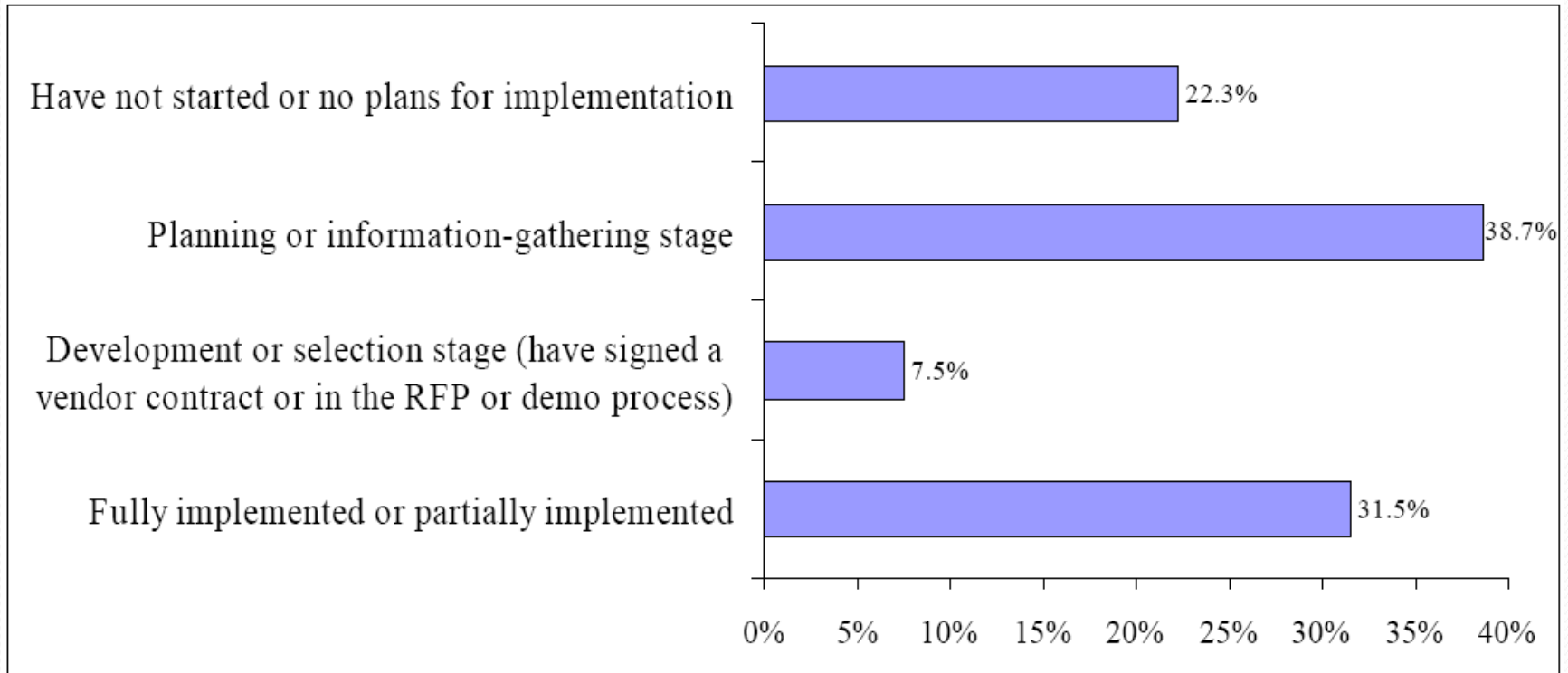
Illinois Software Used by Category
LTC HIT Survey (9, 2010)

**eMAR only 20%**, Clinical Documentation at 46%, POC, EHR and CPOE all at 30%.

- **Answer   Response Ratio**
- Electronic Medication Administration Record (eMAR)   **19.5%**
- Documentation of Clinical Progress Notes   46.3%
- Decision Support Tools   7.3%
- Receiving External Clinical Documents Electronically   14.6%
- E-prescribing between Practitioner and Pharmacy   7.3%
- Point of Care (POC)   **29.2%**
- Electronic Health Record (EHR)   **29.2%**
- Physicans Orders   **31.7%**
- User Defined Assessments   17.0%
- Other (View all)   19.5%

Note: **Clinical Documentation likely to be inflated by MDS system documentation**, so probably closer to 30% - 40%

Minnesota's Software Used by Category

eMAR in 50% of homes and Clinical Documentation close behind.

Figure 2: Clinical **and** Administrative Software/Technology Utilization Distribution (2008)
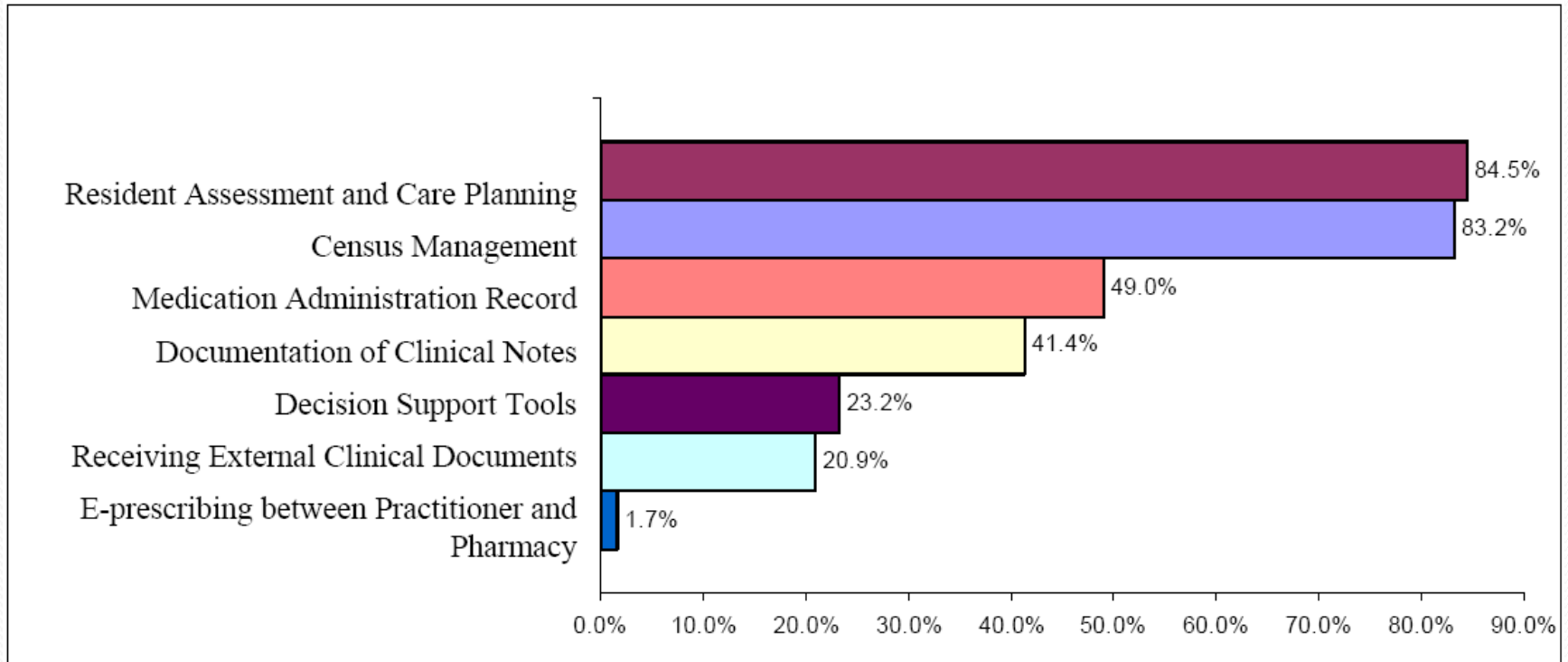
Sean Spears

Regional Sales Manager, *Keane Care, Inc.*

- Is there a **Business Case right NOW** and are providers seeing actual benefits and a Return On Investment?

Tough Road Ahead

Hospitals are ***Freaking Out***, MU by 2014!

In Spite of the fact that (not including small rural Hosp.):

- Most have been doing many of these things for years.
- They have far deeper pockets.
- Lots more IT talent in house.

Why?…They have been there and are still trying to do it.

- The ARRA goal is a **giant leap** with serious ramifications.
- Know that **70% of large projects fail** to achieve objectives.
- Very **hard to achieve culture change quickly**.
- **Takes more** time, more commitment and more money.
- **Not enough** capital resources available or labor to devote to project planning and management, implementation and training while software and implementation costs soar.

High Probability of Federal Mandate

- ARRA requires **a study to determine if and when Nursing homes** will be given incentives to participate.

- The **initial HHS LTC study is done** and showed **positive benefits for Nursing homes**, so there's a **rising probability that nursing homes will be required to participate in ARRA soon, with incentives**.

- **There are larger studies planned**.

- **Certification Standards almost ready**.

Possibility of a State Mandate

- **Two States Already Mandating Medicaid EHR**
  - Minnesota, all health care providers
  - Massachusetts, Hosp and Phys so far.
- **Both States offer stiff penalties and <u>neither</u> is offering incentives**
  - Minnesota: EHR by 2015 or would be in technical noncompliance, which is a misdemeanor.
  - Massachusetts: EHR by 2015 or face the revocation of their state certification.
- **Feds pushing States'** Medicaid EHR initiatives.

Illinois Has About 369 Facilities To Go!
Illinois LTC HIT Survey (9, 2010)

- **369 (48%) of facilities statewide indicated that they did NOT have any clinical software or systems or any firm plans to purchase any within the next 9 Months.**

Note: Statewide numbers interpolated from approx. 14.5% sample.

Strategic Rationales for Early Intervention

- After a **mandate**, **software and implementation cost WILL go up** substantially, **most modules** are required and implementation costs will stay high **until MU is achieved**.
- **Head Start**, lets not *freak out* like the hospitals are. **Take advantage of our time**.
- State/Fed Budgetary strains are getting worse and we may see **cuts or no EHR incentives**.
- **Mounting regulations** with high rates of change and computerized survey analysis tools are making facility compliance difficult, **increasing risk**.
- Better Software and access => **ROI** and many other intangible benefits. Potential improvements in efficiency, cost savings and risk management could result in **profits**.
- As the industry makes large steps toward **pay-for-performance**, proper documentation of all care provided is critical.
- Software advantages will be there even if **ARRA collapses politically**.
- **Grants** may be available in 2011 to cover a small portion of facilities.
- Enhanced Medicaid match is going away soon. Payment delay borrowing low, but current payment delays may lengthen.
- Significant improvements to resident safety possible via **HIT reduces liability**.

How to Proceed from Here

- **Toolkit**: an **excellent resource** focused on LTC needs, released 2010, tested and free.
- **Lessons learned** from speaking with providers
- **Getting started**

The Nursing Home Health Information Technology Toolkit

- The purpose of this toolkit for is to supply tools, **tested in the nursing home environment**, that will help you plan and make the right choices, as well as to avoid having to re-invent the wheel.

- The right tools to plan and implement HIT **can mean the difference between systems that are not well-used or even add administrative burden, and those that achieve value**.

- The Health Information Technology Toolkit **is modular** and can be used for implementing a comprehensive HIT or EHR system, for acquiring individual applications, or for overhauling existing systems.

Lessons Learned From Your Peers

- Hire a **Professional implementation specialist** with lots of nursing home implementation experience with your software.
- Software **setup/config a big hurdle**, not a car you just drive.
- Major task in balancing the **reestablishment your policies on PC** with **adapting to best practices** modeled in the system.
- Huge **work load on management company or small Operator** to implement. Continually reviewing policies and creating new ones.
- **Dedicate a project manager** to oversee the project and then to be the **HIT manger afterwards**. Also create an HIT guru at the facility.
- Major change in work flow and culture shift takes time.
- Spend more time on training and money on incentives.
- **Takes longer than expected**: Pro = 6-8 months, Self > 1yr.
- **Back-up** plans for web-based systems **actually work** OK.
- **POC** modules have had **great ROI** for some large chains.
- Often **not as integrated as you would hope** and expect.
- Most ancillary services **don't interface well** yet (labs on paper).

Top Four Major Barriers to Using Software/Technology

- **Lack of capital resources to invest (72.1%)**

  ~ This is unlikely to get much better than now.

- **Insufficient time to select, contract, install, and implement software/technology (26.5%)**
  ~This will get worse if everyone is mandated to implement and good vendors will be overloaded.

- **Inability to easily input historic medical record data into the software/technology system (25.4%)**

  ~Most are successfully just inputting only the very recent past. Also, the vendors are very good at this, but will be overloaded after mandate.

- **Lack of technical infrastructure (e.g. networking, servers, other hardware) (24%)**

  ~ Hosted software to the rescue, although still need input devices.

Getting Started

- **Develop a strategic plan** for HIT adoption and securing capital resources. Use the *"HIT Toolkit"* to guide you. See what's possible.

- Begin **researching vendors**, **best practices and peer outcomes**.

- **Start SMALL** by selecting the **high ROI modules now (see HHS study)** for most bang for the buck and ease into culture change.

- Get majority of staff used to PCs and get **training methods and tools worked out**. ID your PC expert and your holdouts. Already doing MDS.

- There are no final published LTC certification standards or certified computerized clinical systems yet, but **the vendors are building to the draft standards and concepts already**. Updating to certified modules later should be a easy.

- **Few in Illinois have implemented all modules** required for MU, **None of those facilities are using these systems to their full potential** for MU yet, but they are getting closer.

Dave Wessinger

CTO, *Point Click Care*

- **CCHIT / Certified EHR Systems – Summary**
- **Getting to EHR**
- **Transparency**
- **EHR Business Case**

Is there any funding available right NOW for LTC implementation to get started?

HIT Grants: The State has been charged with administering these grants. There are related grants and training grants as well

- ***Certified EHR Grant Program for Long-term Care Facilities***

  A four-year Certified EHR grant program for long-term care facilities **beginning in FY 2011.** The grants are to be **used to offset costs related to purchasing, leasing, developing, and implementing certified EHR technology** and may be used for any computer infrastructure including hardware and software, upgrading current systems, and staff training.

- ***Demonstration Project for Use of HIT in Nursing Homes***

  A demonstration project to **develop best practices** in skilled nursing facilities and nursing facilities on the use of information technology to improve resident care.

- ***Development of Medicare Part D Prescription Dispensing Techniques in LTC Facilities***

  A demonstration project, in consultation with stakeholders (including representatives of nursing facilities) to **develop specifications for Medicare Part D prescription drug plans** (PDPs‖) to reduce pharmacy waste in LTC facilities (e.g. Med Vending carts).

Transparency Implications

- **MU #3: submits to the Secretary information**

- **Instant, anywhere access** means that surveyors can easily ask for not a sample but all of your records for review. This **will make reviews constant and real-time**.

- Electronic records with standardized interchanges means they can use a computer to **analyze the entire chart for everyone to find the smallest errors**.

- As Mark Silberman, JD, of *Duane Morris LLP says in his presentation* – "**The New Governmental Approach is to Turn Administrators and Owners into Felons**". "There are ongoing and increasing incidents of the Government seeking felony criminal liability against owners and administrators for quality of care issues."

Meat and Potatoes

All these **Online Resources** are found at:
www.nursinghome.org/pro/HIT/hit.html

U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

HHS: *"Understanding the Costs and Benefits of Health Information Technology In Nursing Homes and Home Health Agencies" (2009).*

- *"LTC – HIT"* these slides, with working hyperlinks.
- *"HIT Tool Kit"* - for evaluating, planning, implementing and follow up of HIT software adoption.
- *"Long-Term Care Facilities Adoption of Electronic Health Record Technology - A Qualitative Assessment of Early Adopters' Experiences"* (2009).
- *"Basic Facts About ARRA and Meaningful Use."*
- *"Grants Provisions Relevant to Aging Services Technologies HR 35901."*
- Illinois HIT Survey (9, 2010).
- HIT_LTC Minnesota - Survey Results (2008).
- Business Case: Keane Care Presentation.
- *"Roadmap for LTC HIT."*
- ROI Calculation Tool Sample.

Panel Discussion

- Audience Question: Do you think we should begin now
  - Why or why not.
- Best module implementation order with highest ROI, an incremental path to Meaningful Use.
- Ways Early Adopters can Save
- Approaching Your Board of Directors
- Questions

Extra Slides

- Lots more here that there was just not time for, see the website www.nursinghome.org/pro/HIT/hit.html for these slides.

EHR BUSINESS MODELS

Among the sites visited, there were two models used to finance the EHR adoption – **remotely versus locally hosted**. The most common approach used by the facilities visited was the 'remotely hosted' strategy and the AM product dominated the market.

- **Comparing the Two Strategies**

Remotely hosted software requires little or no down payment, demands generally less staffing, has lower hardware costs, and allows you to pay as you go. But, it offers less control and customization capability and the long-term cost may end up being higher for larger companies.

But some facilities that lack capital for upfront investment in technology - and lack IT staff as well - find the remotely hosted option appealing. For the vast majority of LTC facilities, adopting the locally-hosted model would prove to be both a financial and managerial challenge.

The process of buying an information technology system can be one of the most challenging purchasing experiences for a provider. Here, experts advise how top managers and building leaders can persuade themselves, owners, boards of directors and others who control the checkbook to sign off on a major IT acquisition.

1

- "Very rarely will you find someone not impressed by ROI [return on investment]," says PointClickCare's Mike Wessinger. "That's important. The large for-profit companies find it really tough to sell the board and shareholders on making an investment based on quality of care, so they're usually making justification on ROI."

- Wessinger says "payback" for a system investment can come as quickly as 12.7 months after an initial purchase. Other clients have found even quicker break-even points, he adds.

2

- It's wise to emphasize what residents would gain from better IT, several experts note.

- "You're really returning [care] time to the residents," Wessinger says. "You could be giving two FTEs (full-time equivalent workers) back to the resident with more efficient processes. You're not sending them home, and you're capturing more reimbursement because things are not falling through the cracks."

3

- The effects on staff cannot be underestimated. "Duplicate systems, with duplicate resident records, are no longer needed with the information technology now available to long-term care. There's been a large amount of time wasted by staff searching numerous systems and charts for all the necessary information."

- IT also will help alleviate turnover costs due to higher worker satisfaction and easier training processes, Brandwein notes.

4

- As the government further refines payment systems, it will be critical for providers to document better than ever before, Brandwein continues. "As the industry makes large steps toward pay-for-performance, proper documentation of all care provided is critical," he notes.

The process of buying…contd.

5

- Other than topics al-ready mentioned, higher-ups also can "be sold" on the value of IT guaranteeing compliance with present and future regulations, says Jim Ingalls, director of sales for Keane Care.
- "We know certified systems for electronic health records are a reality for hospitals and that long-term care is next in line," he reasons. "By easing into an EMR now, you'll have the heart of the EHR already in place instead of waiting to do it all at once."

6

- Emphasizing any characteristics that will boost productivity and efficiency will help immensely, says Les Mackie, director of communications for GiftRAP Corporation. These include everything from regulatory compliance to Part B Cap Management to PPS efficiency and RUG optimization.

7

- Finding the most tech- savvy person on the board of directors and selling an idea to him or her is a good idea. "If you have a hard-nosed board without that visionary, and you need the big money for that type of investment, that can be hard," notes Randy Kirk, executive vice president and chief technology officer for Direct Supply. A "very clear ROI argument" always comes in handy, he adds.

8

- Some of the most convincing information providers can use to persuade top management would be ROI figures, agrees Polly Kirkwood vice president for sales for MDI Achieve.
- "Unfortunately, it can be difficult to quantify hard numbers, but depending on the type of IT solution being considered, the financial impact can be more noticeable than you think," Kirkwood explains.

9

- It is also critical to address any specific "pain points" that currently exist in a provider's organization in order to demonstrate to top management how the new technology could resolve or at least improve these areas, Kirkwood advises.

Demonstrated potential benefits of HIT in LTC => Incentives approval

- The newly enacted American Recovery and Reinvestment Act (ARRA) included many provisions to accelerate adoption of HIT across health care providers, including nursing homes, HHAs, and other long-term care facilities. **One provision of ARRA requires the Department of Health and Human Services to study the extent of quantifiable benefits from using EHR Technology to determine which payment incentives should be made available to health care providers, such as nursing homes and HHAs, which are receiving minimal or no payment incentives for purposes of implementing certified EHR technology**.

- A 2009 HHS Nursing home cost/benefit **study** has direct bearing on this provision in that it **demonstrates some of the potential benefits of HIT in these settings that would be realized through incentives for EHR adoption**, and has an important place in expanding our knowledge base so that we can emphasize functions that offer the greatest value. The compelling qualitative evidence from this study and others on benefits of HIT provides ample rationale for why nursing homes and HHAs should move forward with HIT adoption. Failing to support and accelerate widespread HIT adoption in nursing homes and HHAs while awaiting large-scale empirical studies would be a disservice to the many beneficiaries and staff in long-term care settings who would benefit from improvements in quality of care and more efficient service delivery that were reported by the respondents in this case study.

Benefits and Challenges

Long-term care facility employees who work with EHR systems on a daily basis and participated in this study were overwhelmingly positive about their experience with the EHR and reported many more benefits than challenges.

The challenges reported by participants were primarily related to the technology and new employee training. Participants reported that work was difficult to accomplish when the computers and/or Internet were "down" and the cost of maintaining and upgrading computer hardware was an issue. Participants also reported that good training and on-going support is essential for new employees plus allowing them time to adjust to computer charting. Despite these challenges, the participants agreed that they would not want to return to paper charting or "pre-computer days."

Benefits contd

- Rantz et al. (2006) evaluated the use of bedside electronic medical records (EMRs) to improve quality of care in skilled nursing facilities and attempted to ascertain the extent to which outcomes are affected by the use HIT. Qualitative study findings showed staff perceptions of improvement in documentation accuracy and efficiency; quantitative findings indicated improvements for only some outcomes (i.e., improvement in the activities of daily living (ADLs) of bed mobility, transferring, eating, and toileting), decline in range of motion, and decline in urinary tract infection (Rantz et al., 2006).

- Cherry conducted a one-year evaluation of a web-based EMR for long-term care facility management. The author assessed costs for overall service, nursing and other staff overtime, communication line items, staff turnover, and resulting quality measures in evaluating whether the implementation of an EMR system improved quality of care and staff satisfaction. Results from the findings were mixed. Benefits noted were decreased hospitalization rates, lower staff turnover rates, and staff-perceived satisfaction. However, findings also indicated no significant decrease in the overall costs of providing services, an increase in costs for staff overtime, and a general lack of physician buy-in (Cherry, Owen, & Bachetti, 2007; Cherry & Owen, 2004; Cortes & Chou, 2004).

- A second study by Cherry and colleagues did not focus on costs and benefits of HIT but instead attempted to identify the factors that were barriers and facilitators to the adoption of HIT in long-term care. For both users and non-users, the top three barriers identified were costs, culture change, and staff training (although there were differing priorities reported between users and non-users) (Cherry et al., 2007; Cherry, Carter, Owen, & Lockhart, 2008).

- One long-term care facility, the Sands Point Center, showed improvements in several quality indicators including decreased rates of resident cognitive impairment and moderate to severe pain. Preliminary results also identified cost savings in staff overtime, the reduction of paper forms, and decreased pharmacy costs as well as increased Medicare Part A reimbursement (ehealthsolutions-SigmaCare, 2008; Pacicco, 2008).

Long-term care (LTC) facilities that successfully implemented electronic health record (EHR) systems reported:

- Improved care quality
- Increased employee satisfaction,
- Financial benefits in excess of system costs
- That they intend to continue using the technology.
- That systems commercially available are able to meet most LTC facilities' needs for both clinical and administrative purposes.
- Further, that the EHRs in use were interoperable with state's data repositories.

In summary, the most frequently reported benefits of HER adoption include:

- Immediate anytime and anywhere access to the residents' records.
- Improved quality, consistency and accuracy of documentation allowing for greater efficiency in meeting administrative and federal requirements.
- Improved quality management through reports, alerts, and decision-support tools and ability to track and trend quality data and complete quality audits in a timely manner.
- Improved administrative oversight allowing for ease of monitoring residents' changing condition and proactive response to residents' problems.
- Reduced costs for medications through waste avoidance (in facilities with the computerized pharmacy application).
- Improved staff satisfaction and retention, especially among CNAs who feel more valued because of having computers to use in their work.
- Easier work processes such as completing physicians' orders and preparing records for resident transfers outside the facility.
- Data exchange with physicians for order review and approval minimized duplicate data entry, and data exchange with hospitals facilitated patient admission and transfer processes.

General Communication Improvements	Minutes per Day	Number of Users	Year 1	Year 2	Year 3	Year 4	Year 5
			Based on 312 Days Per Year @ $15/hr (Clinical & Office)				
Improved Communication (reduced time on phone and meetings)	5	12	3,744	4,680	5,148	5,616	6,084
Patient Incident Reporting & Med Interaction Allergy Alerts	5	12	3,744	4,680	5,148	5,616	6,084
Communication of patient changes	5	12	3,744	4,680	5,148	5,616	6,084
Access to patient charts & resource libraries (reduced filing)	10	12	7,488	9,360	10,296	11,232	12,168
Automation of all paper via User-Defined Assessments	5	12	3,744	4,680	5,148	5,616	6,084
Reduced time in faxing and copying	5	12	3,744	4,680	5,148	5,616	6,084
Reduced expenses for paper, ink, toner, chart room requirements		12	749	936	1,030	1,123	1,217
Subtotal of Communication Improvements			**$26,957**	**$33,696**	**$37,066**	**$40,435**	**$43,805**

Specific Application Improvements	Minutes per Day	Number of Users	Year 1	Year 2	Year 3	Year 4	Year 5
			Based on 312 Days Per Year @ $15/hr (Clinical & Office)				
Reduced duplication	20	12	14,976	18,720	20,592	22,464	24,336
Auto-Calculation & transfer of RUGs and ancillaries for claims	10	3	1,872	2,340	2,574	2,808	3,042
Improved quality of documentation (legibility, audits, errors)	5	12	3,744	4,680	5,148	5,616	6,084
Improved RUGs with Therapute / Extensive Services / ARD Optimizing		3	7,488	9,360	10,296	11,232	12,168
Reduction in time spent updating Physician Orders	10	12	7,488	9,360	10,296	11,232	12,168
Care Plan Development from assessment answers	5	12	3,744	4,680	5,148	5,616	6,084
Med Pass and Med books / eliminating paper-based processes	30	8	14,976	18,720	20,592	22,464	24,336
Improved RUGs with CareTracker / ARD Optimizing		24	29,952	37,440	41,184	44,928	48,672
Subtotal of Application Improvements			**$84,240**	**$105,300**	**$115,830**	**$126,360**	**$136,890**

Keane NetSolutions Technology Advantage		Users	Year 1	Year 2	Year 3	Year 4	Year 5
Extended life of existing workstations		5	2,400	3,000	3,300	3,600	3,900
Displaced cost of existing systems (N/A)			0	0	0	0	0
Subtotal Technology Improvements			**$2,400**	**$3,000**	**$3,300**	**$3,600**	**$3,900**

Total Potential Savings and Benefits			**$113,597**	**$141,996**	**$156,196**	**$170,395**	**$184,595**

Estimated Expenses			Year 1	Year 2	Year 3	Year 4	Year 5
Keane Software and CareTracker Hardware 5-Year Amortization			7,865	7,865	7,865	7,865	7,865
New Med Carts and Med Cart Computers 5-Year Amortization (GEN.)			5,899	5,899	5,899	5,899	5,899
Implementation Services Estimate for Time & Travel			15,000	0	0	0	0
Software Maintenance, Rental Fees, Recurring Fees			19,624	19,624	19,624	19,624	19,624
Hardware Expenses and Maintenance (for a new server) (GEN.)			10,000	1,000	1,000	1,000	1,000
Other Expenses (labor, wiring, additional training, shipping) (GEN.)			3,000	1,000	1,000	2,000	2,000
Total Estimated Expenses			**$61,388**	**$35,388**	**$35,388**	**$36,388**	**$36,388**

Net Potential Savings and Benefits			**$52,209**	**$106,608**	**$120,808**	**$134,007**	**$148,207**

TABLE 1: Booz Allen Hamilton Reported Benefits and Costs of Health Information Technology Adoption	
Benefits	**Costs**
- Patient Safety/Quality of Care (Number of adverse drug events, avoidable hospitalizations, pressure ulcers, falls, urinary tract infections, reduced length of stay, improved communication, duplicative testing) - Labor (Time for admission, clinical documentation, medication administration, care plan input, overtime hours, staff retention and recruitment,) - Revenue (Revenue per patient, patient volume increase, payor mix) - Malpractice Insurance/Litigation (Number and value of claims, reduction in premiums) - Improved Regulatory Compliance (State audit improvements, Outcome and Assessment Information Set, Minimum Data Set)	- HIT Needs Assessment (Information technology labor, information technology personnel, time/hours for information technology assessment) - Hardware/Software (Price of hardware, software, network) - Training (Personnel, hours, productivity loss) - Licenses (Cost, annual fees, other) - Upgrades/Maintenance (Hardware, software) - Information Technology Support (Labor and hours of labor) - Interface (Connections, labor hours) - Deployment (Testing, personnel, labor)

Healthcare information technology has not saved hospitals money, 2007 report says

- Despite claims of significant cost savings, so far implementation of healthcare information technology in hospitals "**hasn't saved a dime**," according to a new report from researchers at Harvard Medical School.

- In the most extensive review of healthcare IT implementation to date, Harvard researchers looked at data for **more than 4,000 hospitals between 2003 and 2007** to determine the effects of computerization on quality and efficiency. Not only did they not find any cost savings, they discovered that, as facilities improved their computer networks, administrative costs actually rose slightly by 0.5% in 2007. The biggest cost increases were seen at facilities that had the most rapid implementation of healthcare IT, the report finds. **Nursing homes and long-term care facilities have been working to stay ahead of the curve in the use of healthcare IT.**

- The Harvard researchers did note one area where healthcare IT has been a rousing success: the Veterans Administration. Because of its single-payer format, the VA is able to maximize the potential cost savings of healthcare IT. The **only way for the civilian healthcare system to cash in on the potential savings** suggested by President Obama and members of Congress **would be to implement a similar single-payer system**, the Harvard research team concluded. The report appears in the Nov 20 online edition of the American Journal of Medicine.

- EHDS and other MDS analysis software tools have produced exciting and profitable results.

One area facilities should explore more fully is the use of computerized pharmacy administration (CPA).

- Facilities using the pharmacy 'vending' machines and remote support reported significant reductions in both medication errors and waste.
- One facility had fully documented a $3,000 - $4,000 monthly reduction in medication destruction after implementing the system (others reported similar experiences).
- Further, adopting the pharmacy application first gave both the administrators and clinicians a 'low-impact / high-reward' experience with EHR technology.
- The significant clinical and financial impacts of CPA for both government payers and LTC facilities create win-win opportunities.
- Therefore, CPA warrants further investigation to determine the potential savings from widespread adoption and program parameters that facility administrators would desire.

Organizational Policy Changes Related to EHR Adoption

Facilities varied in their reports of new policy implementation as a result of EHR adoption with three specific policy areas common to most facilities.

- First, facilities reported new policies related to using the Internet during work hours. Some facilities established policies to block access to all Internet sites other than the EHR entry portal while other facilities allowed open access to the Internet.

- Second, facilities reported new policies related to accessing the web based EHR system from home. In most facilities, staff members – regardless of role – are not allowed to access the web-based EHR system from home.

- Third, facilities commonly reported new policies related to establishing security systems to protect the integrity of the electronic medical record. Passwords must be changed on a routine basis and staff members are not allowed to share passwords. Also, the level of access in the EHR system is defined by the job description. For example, CNAs are only allowed to access certain areas to document activities of daily living while the director of nursing would be allowed access to the entire electronic record.

- Finally, One facility has implemented policies to address EHR security during disaster drills and pandemic planning.

To help support EHR adoption and ongoing use, facilities should consider establishing policies to:

- Allow nurses, direct-care staff and other user groups to meet routinely with HER vendor representatives to discuss ideas for improvements in the system and to learn about better ways to use the system.
- Provide for specific hardware maintenance and replacement schedules (i.e., some facilities reported difficulties in working with equipment that was "wearing out").
- Ensure a consistent and timely process to address computer malfunctions/disrepair.
- Ensure a timely process to set-up new users and allow for new users to be adequately trained.
- Provide for internal quality indicator surveys to mirror quality indicator surveys that will be conducted by the state; such a policy would allow facility staff to be more proactive in responding to quality issues.
- Provide a venue for user groups (i.e., Directors of Nursing, CNAs, Social Workers, etc...) to meet on a regular basis to share ERH experiences and learn from each other.

Facilities should also strive to promote best practices for adoption and implementation processes for:

- Negotiating contracts with IT vendors
- Establishing sound organizational policies related to EHR use
- On-going employee training
- On-going support to address EHR system improvements and human-computer interface improvements.

Capital investment - Financing Resources

Paying for a major health information technologies (HIT) investment is challenging for every organization, but especially for independent nursing homes. When nursing home corporations consider HIT essential, they are likely to roll them out to all of their local homes. Local homes will have much to do during the implementation to assure adoption and optimization, but the cost will largely be borne by the corporation.

In the HIT toolkit is a tool that provides a description of the various sources of funds that may be available for HIT if you are in an independent facility. While not every source is applicable to every organization, the list may generate ideas not previously considered.

A Roadmap for Health IT in Long Term and Post Acute Care (LTPAC)

Executive Summary

2010-2012 Priorities and Recommendations for Action

   a. **Leverage Existing Programs and Policies :** To successfully advocate for inclusion of LTPAC in both national and state HIT policies and programs designed to expand the adoption, use, and exchange of health information for all Americans.

   b. **Certify LTPAC Vendor Solutions:** Establish/extend EHR certification criteria to LTPAC providers to promote EHR adoption, coordinate care among health care settings to increase quality of care, and to prepare for possible provider incentives.

   c. **Adopt and Use Health IT and EHRs:** To support LTPAC provider adoption and use of HIT, EMRs, and EHRs.

   d. **Health Information Exchange:** Foster the strongest inclusion and participation of LTPAC providers and vendors in emerging state HIEs and the national health information network (NHIN).

   e. **Prioritize Transition of Care and Electronic Prescribing:** Promote care coordination and continuity of care through the use of HIT during transition of care (TOC) periods and for electronic prescribing (e-prescribing).

   f. **Focus on Person-Centered Health and Healthcare:** Empower persons (consumers, patients, families, caregivers and practitioners) to expect, person-centered and person-directed outcomes (including wellness, independence and control) as they participate in healthcare systems, processes and activities.

   g. **Showcase Valuable and Effective Use of Health IT Solutions:** Move HIT in LTPAC from the phase pilot testing and demonstrations of value to becoming sustainable part of operations that continuously result in improved care quality, increased efficiencies, and cost-effectiveness.

   h. **Promote and Disseminate Research:** Define and advance an EHR/HIT research agenda that includes a focus on LTPAC and contains identified priorities.

   i. **Strengthen LTPAC HIT Collaboration:** Strengthen the effectiveness of the LTPAC HIT Collaborative and to achieve sustainability and viability as a volunteer organization.

Immediate Next Steps
- Promote the LTPAC HIT Roadmap Agenda to Stakeholders, Change-Agents and Policymakers
- Mobilize LTPAC Stakeholders
- Participate in National, Regional, Local and Private HIE Initiatives and Agendas
- Educate, Assess and Accelerate EMR/EHR Adoption by LTPAC Stakeholders

With respect to nursing home care, these general goals can translate into:

- Improvements in reducing pressure ulcers and use of restraints, and improving pain management
- Targeted improvement in quality of care for individual residents
- Heightened satisfaction by residents and their families for care provided in your home
- Increased staff retention and consistent assignment of staff
- Support for MDS/RAPs (minimum data sets and resident assessment process) documentation and triggers for interdisciplinary care planning
- Integrated orders and e-prescribing, full electronic charting, and remote access to improve communications with providers
- Automated services for privacy and security management
- Enhanced coordination of care across the continuum

Many nursing homes have used health information technology (HIT) for some time to support administrative and financial processes. Momentum is growing to use HIT to:

- Improve direct clinical care processes for safety and quality of care
- Achieve greater efficiency and improve use of resources
- Communicate across the continuum of care
- Accelerate diffusion of knowledge and reduce variability in access to care
- Strengthen privacy and data protection
- Promote public health and preparedness
- Engage individuals in their health maintenance and wellness efforts

Healthcare reform law includes information technology funding for long-term care

- Long-term care facilities could be receiving funding for health information technology initiatives under the recently passed healthcare reform law, according to reports.
- The Department of Health and Human Services is set to release a number of grants to long-term care facilities to help pay for electronic health record systems, according to a report from the Healthcare Information and Management Systems Society. The money can be used for software and hardware, including handheld computers. Other uses include upgrades to enable e-prescribing, according to HIMSS.
- The legislation also includes provisions to improve internet access in rural areas
- Other healthcare IT provisions included in the legislation include a scheme to better coordinate care (CDM)for those with chronic illnesses, such as diabetes or heart disease. The law will attempt to "establish a provider network that includes care coordinators, a chronic disease registry, and home tele-health technology," according to the HIMSS report.

Other policy issues State should consider to promote successful EHR and HIT adoption and implementation include:

1. Establishing a set of "best practice" implementation guidelines and a technology adoption readiness assessment to assist facilities who are considering EHR adoption.

2. Providing guidelines for facilities to evaluate EHR business models and vendor contracts.

3. Offering continuing nursing education (CNE) programs to give supervisory and front-line nurses first-hand experiences with EHRs to help promote adoption.

4. Developing a set of sample policies to support and guide EHR adoption; such sample policies could be used as a guide to "best practices" with respect to key issues such as equipment maintenance, Internet access, protected health information (PHI) and system security, and on-going quality improvement regarding the effective use of EHR systems.

5. Establishing "best practice" guidelines for training LTC staff in the use of EHRs and HIT.

6. Encouraging facilities and vendors to collaborate to institute regular meetings with vender representatives and user groups (i.e., directors of nursing and charge nurses) to identify potential system improvements, provide advanced training to the group, and provide an opportunity for the group members to network and learn from each other.

7. Designing programs to promote adoption that include financial incentives and scale and quality criteria as conditions of participation. Such an approach would help increase the likelihood of programmatic success and increase the pace of technology adoption.

8. Support further research to demonstrate the value of technology to improve resident outcomes and care quality, medication management (CPA Systems), organizational effectiveness and efficiency, evidence-based practices, and best practices in technology implementation and utilization in the long-term care setting.

POLICY IMPLICATIONS

- With passage of the ARRA, the President and Congress have identified implementation of HIT as a critical component to bring about necessary health care reforms including improving quality and coordination of care, reducing medical errors, and lowing health care costs. The ARRA provided:

- The ARRA requires HHS to conduct a study to determine the extent to which payment incentives should be made available to health care providers who are receiving minimal or no payment incentives or other funding for purposes of implementing and using certified EHR technology (ARRA, Title IV, §4104(a)). While the types of health care providers that will be included in this study have not yet been defined by the Department, **the definition of "health care provider" in HITECH includes skilled nursing facilities**, **nursing facilities**, and home health entities.