

Health Information Technology and Interdisciplinary Teamwork in the VA

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Background



- 1 The VA is the largest installation of an integrated IT system in the US
- 1 Computerized Patient Records System (CPRS)
 - 1 Hospital records, including nursing notes
 - 1 Clinics, long-term care, mental health
 - 1 Laboratory, radiology, and other ancillary
 - 1 Integrated within each VA and across VA sites
- 1 Bar Code Medication Administration (BCMA)
 - 1 Connects nursing to pharmacy, physicians can access

Methods



- 1 Retrospective study of implementation and current state of CPRS and BCMA
- 1 Qualitative analysis
 - 1 Key informant interviews at 7 sites
 - 1 Sites visited June 2006 – September 2007
 - 1 118 interviews
 - 1 Staff and management
 - 1 Nurses, pharmacists, physicians, IT staff, respiratory therapists, Clinical Applications Coordinators

Team & Funding



1 Core team

- 1 Joanne Spetz, UCSF
- 1 Ciaran Phibbs, VA HERC
- 1 Jim Burgess, Boston VA

1 Funding

- 1 Robert Wood Johnson Foundation
- 1 Gordon & Betty Moore Foundation



Overall impacts of IT



- 1 The cultural change caused by CPRS and BCMA was enormous
- 1 CPRS changed “how we organize, document, and communicate regarding patient care”
- 1 BCMA removed all previous methods for administering and documenting medication
- 1 CPRS had the biggest effect on teamwork.

CPRS and communication



- 1 Most staff felt that CPRS has improved team communication
 - 1 “Nothing but positive. Ability to share data is a critical element of patient care. Ability to have information right there, don’t have to look for the data. Can walk through and easily do chart reviews, identify causes of errors.”

CPRS contains a complete record of care



- 1 “Everything is at your fingertips, even from other facilities. This is really important in mental health. A lot of their patients tend to move around a lot. You can see this history, and integrate previous treatment into your treatment decisions.”
- 1 “Ability to coordinate information. You know what has been done at other clinics, and at other sites (especially CBOCs).”
- 1 “Data and information are much more accessible... It is much easier to see the interdisciplinary process, and this process is facilitated by CPRS. You know what different staff have done.”

Perspectives of all providers are available



- 1 “Can read all of the MD notes and orders, other documentation.”
- 1 “It is easier to see what has been completed, such as consults and labs.”
- 1 “Tremendously helped - pharmacists can see patient records, so pharmacy is not in a silo - My Katrina volunteer experience made me see even more the benefits, pharmacy has more visibility, more interaction.”

The chart is available any time, any place



- 1 “Information is instantly available. You don’t have to hunt for charts.”
- 1 “Easier to have other team members see what’s happening with patients.”
- 1 “Informatics fostered an interdisciplinary approach - CPRS levels the playing field, docs can’t take the charts away so we can’t see them - more collegiality.”

Hand-offs are more complete



- 1 “The better documentation also facilitated the handing off of information to subsequent providers.”
- 1 “Helps treatment teams operate better. Medical RNs sometimes sub into our unit...”
- 1 “Intra-regional communication is great. For example, if you have a patient who splits time between Minneapolis and Arizona and is on warfarin, it is easy for the patient to have blood draws in Arizona while the Minneapolis providers manage the patient.”

Teams can look at the chart together



- 1 “Multiple people can look at the chart at once, which helps the team work together.”
- 1 “Shared knowledge has definitely improved professional relationships, we’re on the same page on information. Everyone is now empowered - this is good.”

Communication methods are hard-wired into CPRS



- 1 Most nurses like being able to require that other providers sign notes
- 1 I like computerized surgical consents - “very nice”; one place to get all the histories, previous day check-ins, labs and imaging comes up easily.
- 1 The ability to request feedback from clinicians by asking for signatures of notes, e.g. nutritionist, I can specify many signatures if I want many people to see my note.
- 1 if I sign and MD has to look in my opinion, I can make them a co-signer and force them to look.

Co-signing of notes forces communication



- 1 “I can specify many signatures if I want many people to see my note.”
- 1 “...if I sign and a doctor has to look, in my opinion, I can make them a co-signer and force them to look.”
- 1 “I can use multiple additional signers on notes, they can review and sign them on their own time, so everyone is informed efficiently.”
- 1 “I don’t have to get on the phone. The doctor can’t ignore the note – I can put my thumb down more on physician.”

Other communication methods are hard-wired into CPRS



- 1 “I like computerized surgical consents - one place to get all the histories, previous day check-ins, labs and imaging come up easily.”
- 1 “I can ‘Tab’ notes for doctors making rounds.”
- 1 “Doctors get alerts easier and quicker. This happens fast and saves doctors’ time too.”

Some think CPRS has a negative effect



- 1 “People don’t look at full flow of info.”
- 1 “Hand-offs involve no discussion.”
- 1 “Notes are entered but never reconciled.”
- 1 “Erodes congeniality. Use CPRS to communicate. Consults get cancelled because chart doesn’t show clear reason for consult. Doctors don’t talk to each other or ask.”

CPRS is credited for many of VA's quality improvements



- 1 Completeness of records
- 1 Inpatient-outpatient integration
- 1 Movement of information across care providers
- 1 Clinical reminders
- 1 Data analysis for quality improvement
- 1 Coming soon: access by patients