

**Standardize Reporting & Analytics
and
Implement New Organizational Structure at
an Academic Medical Center in the Northeast**

PM Challenges

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Client Business Environment

- Multi-hospital academic medical center (3 Hospitals)
- Pockets of expertise across data lifecycle
 - *From raw capture to aggregated presentation*
- Redundant data collection and reporting across 3 hospitals and 2 enterprise dept's
- Different logic for the same measure calculation across hospitals
- No awareness of data quality issues
- Uncertainty regarding the “need and catalyst for change”
- Job security in data collection – non-value added task
 - *Analysts tasked with collecting data – little responsibility for analysis and action (value-added)*
- Very low expectations from analyst community for any data integration projects based on past project failures and short term executive buy-in
- Executives tasked with eliminating millions in costs for decision support



Client IT Environment

- Siloed Systems
 - *Lack of consolidation (Two hospitals using two separate instances of same system)*
- Lack of any significant business - IT relationship
 - *Business keeps IT out as long as possible*
 - *IT doesn't want to engage with business*
- Upstream and Downstream systems out of sync
 - *Encounters missing across systems (HL7 messages lost)*
 - *Inconsistent information (Inpatient, Outpatient, Emergency)*
 - *Missing information (No discharge date, No encounter charges)*
- Lack of Master / Standardized Data
 - *Different codes for discharge disposition, patient type, units, service*
- Lack of development methodology
- Lack of coding and documentation standards and templates

Project Scope

- Source Systems: 7
 - *Press-Ganey, UHC, Thomson Reuters, AHRQ, TheraDoc, Clintrac, HDM*
- 136 Quality and Safety Measures
 - *Measures counts, rates*
- Developed Quality and Safety Data mart
- 2 complex dashboards and 8 complex reports in BusinessObjects
- Deliverables (PM oversight and full-to-partial execution of all of the following):
 - *Project Plan*
 - *Weekly status reports*
 - *Meeting Minutes*
 - *Source to Target Mappings*
 - *ETL documentation*
 - *Reports and Dashboards documentation*
 - *Test Plan*
 - *Test cases and results*
 - *Test results discrepancies and root cause*

Solution Delivered

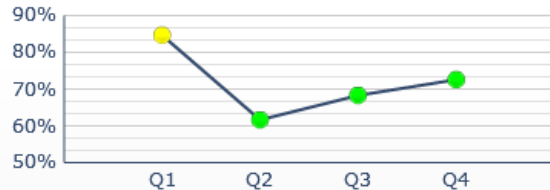
ALL N/A Quarterly

9/2010 to 10/2011

Welcome Summary Mortality Transitions/Readmissions Core Measures HAI HCAHPS PSI DVT/PE/VTE Sparkline

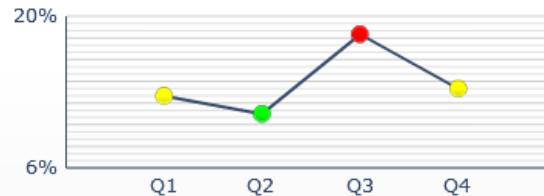
Mortality - O/E Ratio

As Of: GEN(08/01/11), MEM(07/29/11), CTY(07/26/11)



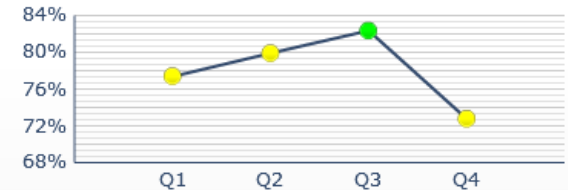
30 Day All Cause Readmission Rate

As Of: GEN(08/01/11), MEM(07/29/11), CTY(07/26/11)



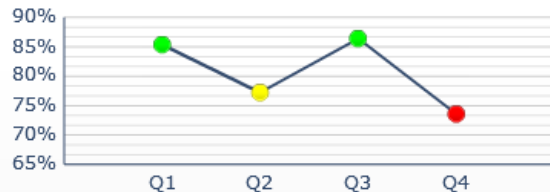
PN - Perfect Care

As Of: GEN(08/01/11), MEM(07/29/11), CTY(07/26/11)



SCIP - Perfect Care

As Of: GEN(08/01/11), MEM(07/29/11), CTY(07/26/11)



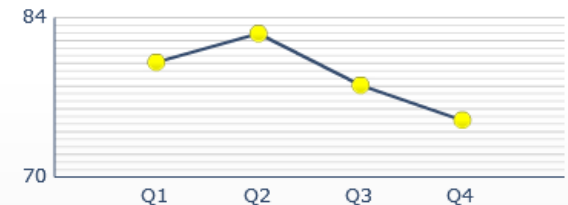
Hospital Acquired Infections

As Of: GEN(08/01/11), MEM(07/29/11), CTY(07/26/11)

	UTI	CLABSI	VAP	LOS
Q1		● 22.0		
Q2		● 15.0		
Q3		● 16.0		
Q4		● 15.0		

HCAHPS - Overall Rating of Hospital/Domain

As Of: GEN(08/01/11), MEM(07/29/11), CTY(07/26/11)





Project Implementation Challenges

- Dependency on client internal product release
 - *Delayed by 3 months*
 - *Data from 2 systems not available until the last few weeks of the project*
- Document business, technical and reporting requirements on the fly
- Client IT lack of active involvement
 - *Delayed Design and Code Reviews*
- Data quality issues in the internal data warehouse
 - *Standardized dimensions (Location, Dx Disp, Department, Service)*
 - *Redundant data sources = Obtained consensus on “system of record” for all raw data*
- Frequent Dashboard design reviews
 - *110 of 136 measures displayed on the dashboards*
- Client-specific documentation standards not revealed until end of project
- Testing & Sign-off took longer than planned

Early Warning Signs

Who complains first, asks questions last?



Sponsors promised highly skilled team members



What we got was...



Says one thing to you...



...another to them

Dater Qwality? Whassat?



Sponsor: "Our data quality is fine..."



Project Management Best Practices

- Managed the scope and change requests effectively
- Managed risks, issues, action items
 - *Individual Accountability Matrix*
- Reported project status weekly: Names/Roles, Progress, To-Do's
- Help make client decision easy – show them what, how, why!
- Escalated issues as appropriate
 - *Escalation criteria with sign-off from client Sponsors*
- Question-based requirements gathering; drill down from there
- [Some] Data Quality assessment should be done for every data project!
- Multiple reviews and knowledge transfer sessions with client IT
 - *30 ETL design review sessions, >10 code review sessions*
 - *Additional knowledge transfer sessions & Documentation reviews*



Project Management Team Profile

- Project Manager Profile
 - *Technical – 8 years of experience in managing Data Warehouse / BI projects*
 - *Experience across industries*
 - *Experience with ETL and SAP's BusinessObjects and Xcelsius technologies*
 - *Very organized and likes things in writing*
 - *Likes to get to the technical details and always be up-to date*
- How did the experience help?
 - *Effectively managing the development*
 - *Armed with details to get issues resolved and risks addressed to avoid slippage*
 - *Writing detailed change requests and justifying the work needed*
 - *Working with team with different interests*
 - Client Project Manager was a contractor with his own interests
 - *Addressing client questions / concerns with facts, not emotions*
 - Some clients have short term memory! "I never received the email, I didn't know"
 - Retained and categorized important email communications
 - Detailed weekly status reports with the accomplishments
 - Detailed meeting minutes – hold people accountable!



Lessons Learned

- Obtain sign off on the documentation templates and standards
- Obtain sign off on the deliverables
- Be a Project Manager not an Account Manager
 - *You are honest and transparent, let others deal with “what’s best for the account”*
 - *Have tough skin - let others be emotional, stick to facts and objectives*
- Document everything
 - *Accusations, claims, promises, timelines, deliverables, EVERYTHING!*
 - *Obtain and provide important communication in writing*
- Organization, filing, email categorization critical for holding clients accountable
 - *Constantly had to justify billing hours per week, timelines, why so much time in December, why no budget left for support, etc.*
- “Value” folder
 - *Document every time client identifies “how you’ve helped, improved their business”*



What Would We Do Differently?

- Specific date milestones for client deliverables: “By 2/22/2012!”
- “Trust & verify” – don’t take a ‘sky is falling’ approach to problems
- Pick my battles because in long projects, there are many
- Trust my instincts
- Ask for help early – if it doesn’t smell right, ask advisor / mentor for help
- Get PM involved first thing during proposal and bid
 - *Problems in delivery always start with setting expectations long before*
 - *Red Team review process*

Thank You

- ▶ Ryan Hayden
Healthcare Principal
MBA, MSIT, Healthcare Informaticist
315-380-0672
rhayden@edgewater.com
[Healthcare Blog](#) – What do you think?

