



Using data analytics to assist in compliance auditing and monitoring

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Objectives

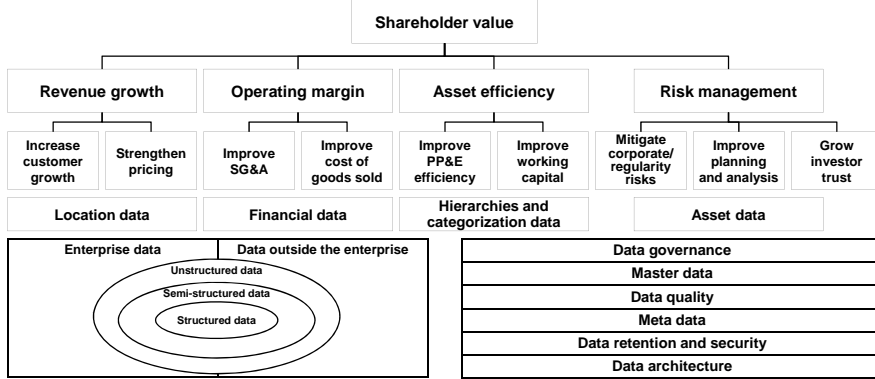
- Review data analytics in other industries
- Understand data analytics in healthcare from the enforcer and provider perspective
- Understand the value of internal data
- Discuss how to get started, what to anticipate and how to evaluate effectiveness of the process
- Explore the expected and unexpected outcomes of data analytics and data forensics



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Lessons learned from other industries

- Organizations are **investing** in programs that improve their ability to execute in those areas that **contribute to value**, and, the successes of strategic improvement initiatives are dependent on the **availability, accuracy, and consistency** of a wide range of enterprise data



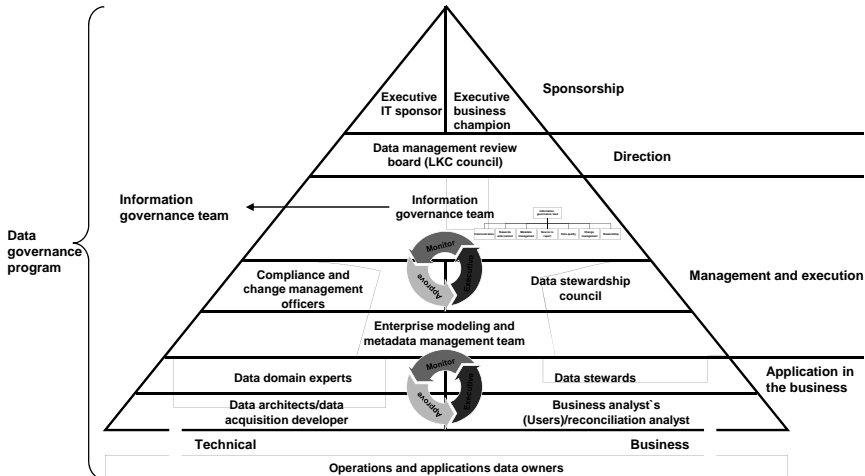
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Lessons learned from other industries (cont.)

- The data management is “top-down”, while data integrity is “bottom-up”



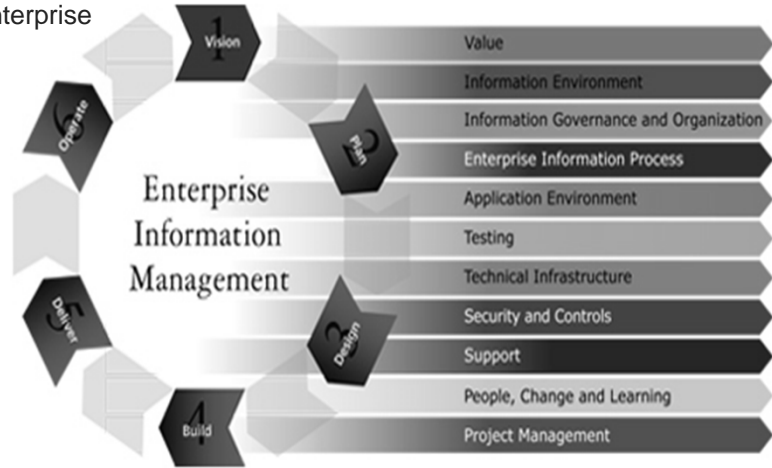
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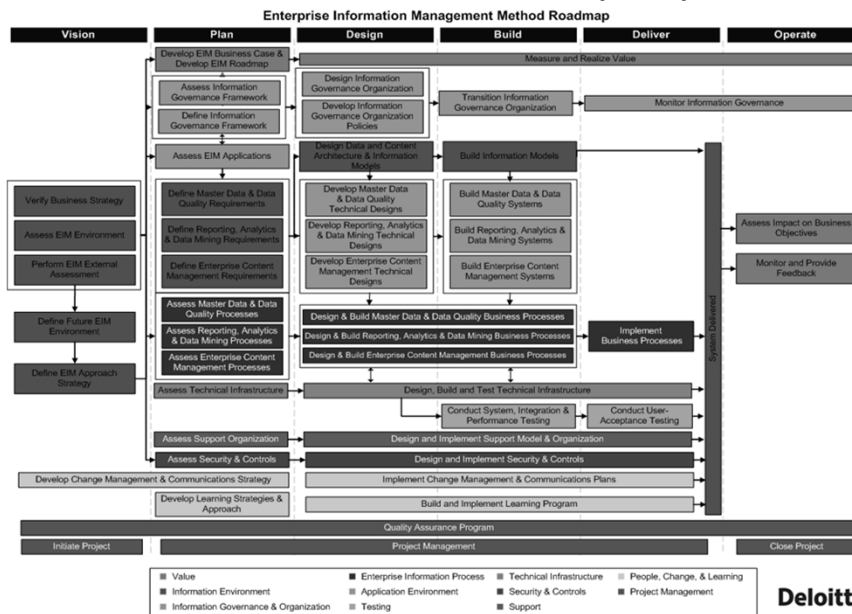
Lessons learned from other industries (cont.)

- Enterprise information management is an organizational commitment to maximize business value by creating an integrated semantic layer which leverages structured and unstructured information within and external to the enterprise



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Lessons learned from other industries (cont.)



Data analytics in healthcare compliance

- In many industries, information management impacts revenue growth, operating margin, asset efficiency, and risk management
- This is true in healthcare, however, for hospitals, risk management and compliance tends to have added emphasis
- Enforcement, reputation, quality, efficiency
- Hospitals are ripe with data and there is going to be more
- Effective data analytics and information management can provide hospitals with an advantage that safeguard them from reputational/regulatory risks while improving their quality and patient experience
- Using data to manage readmission rates is a good example of this

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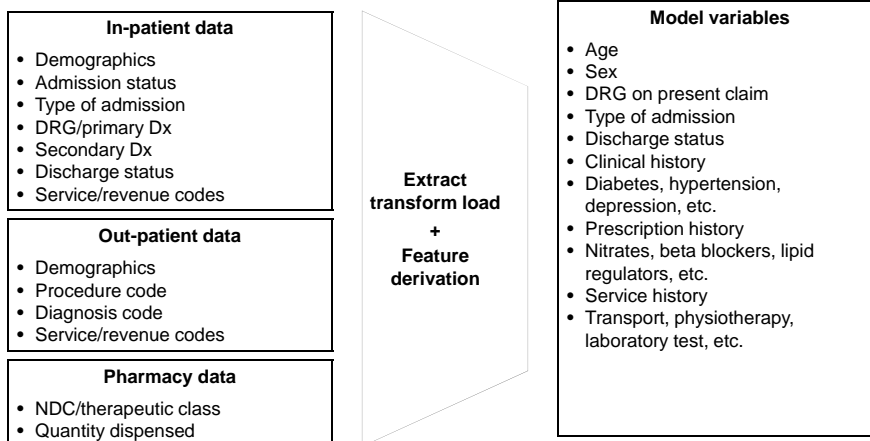
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Data analytics in healthcare compliance

Readmission model

Data source and model variables



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Data analytics in healthcare — Enforcer perspective

- Data direct from MACs and CMS common working file
 - Data is unwieldy and at times too aggregated
 - Often the data is 835/837 specific but does not truly reflect the patient encounter
- Enforcers may have enough to identify simple errors (i.e. MUEs) but often lack the level of data for an in-depth review
 - Medical necessity review, additional data required
 - Through the appeal process provider and enforcer resources are expended

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Data analytics in healthcare — Provider perspective

- Start simple, show the value
 - A few simple edits/queries can make a business case
 - Showing the value can free up resources for more edits
- While enforcers lack depth of data, providers are data-rich
 - Supplemental data can be added to standard reportable data sets
 - Data can be screened prior to bill drop, and corrected “real-time” before the bill leaves the door
 - Data screening can “ear-mark” data to identify certain issues making audits time and resource friendly
- Now is the right time
 - With HITECH/EMRs, 5010 and ICD-10, now is an ideal time to lay down data architecture while systems are being installed/updated and data pulls are being developed

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How data analytics applies to you

- Even the smallest providers can begin being “data-savvy”
 - Know what internal data is available or potentially available to you
 - Use data warehouse outside the system if necessary (i.e. AHCA, MEDPAR, RAC TRAC, etc.)
 - Running small reports and teaming with internal audit, to provide audit intelligence and support is a great ramp-up to a more data intensive project
- Data analytics is an investment with very tangible rewards
 - It is not an overnight process, and not without costs
 - The rewards do not come instantly but there is value, obvious, and some unexpected, to investing in a data analytics initiative
- Real life examples of data becoming actionable information
 - CHI takes data analytics from concept to reality

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Who Can Relate?

- How many people currently do some sort of data mining to look for audit issues?
- What sources do people currently use to identify the audit issues that they should be aware of?
- Does anyone have any data mining success stories?

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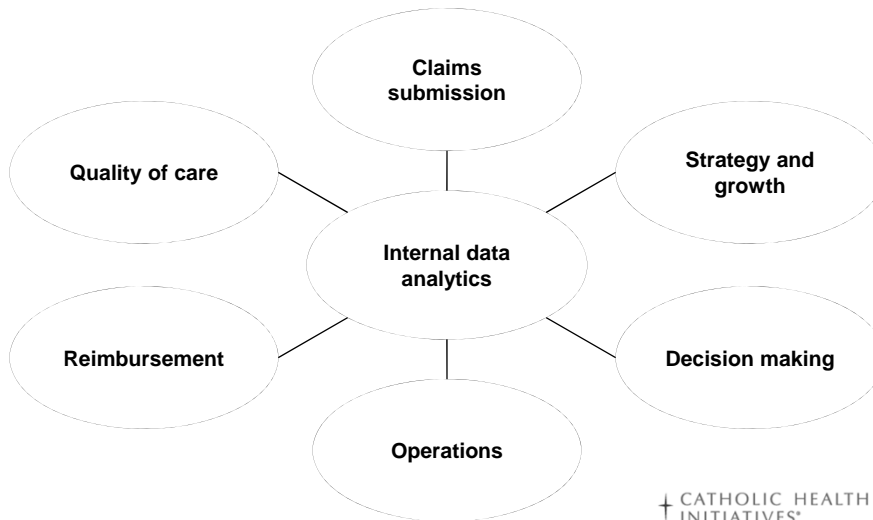
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Catholic Health Initiatives (CHI)

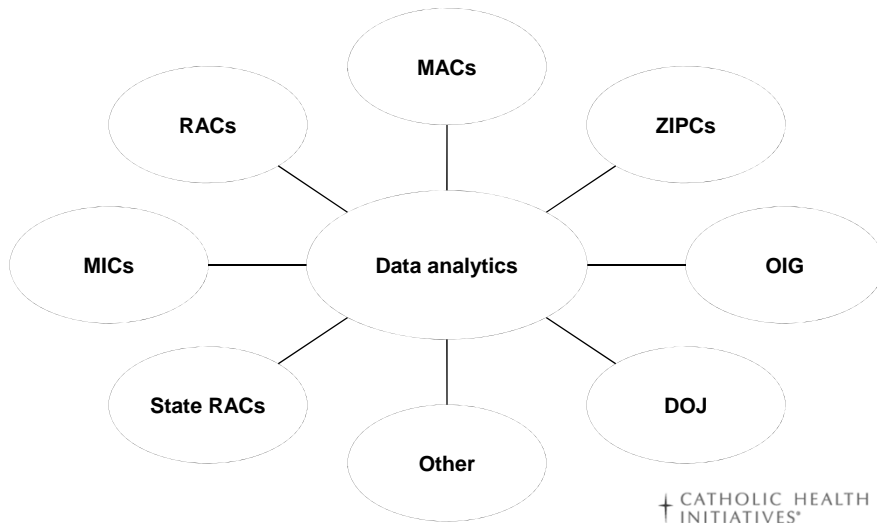
- CHI is the nation's third-largest Catholic health care system
- CHI operates in 18 states:
 - 70+ hospitals; 40 long-term care, assisted living and residential facilities; two community health services organizations; and home health agencies
- 65,000+ employees
- Annual revenues of approximately \$9 billion



Why data analytics? — Provider perspective



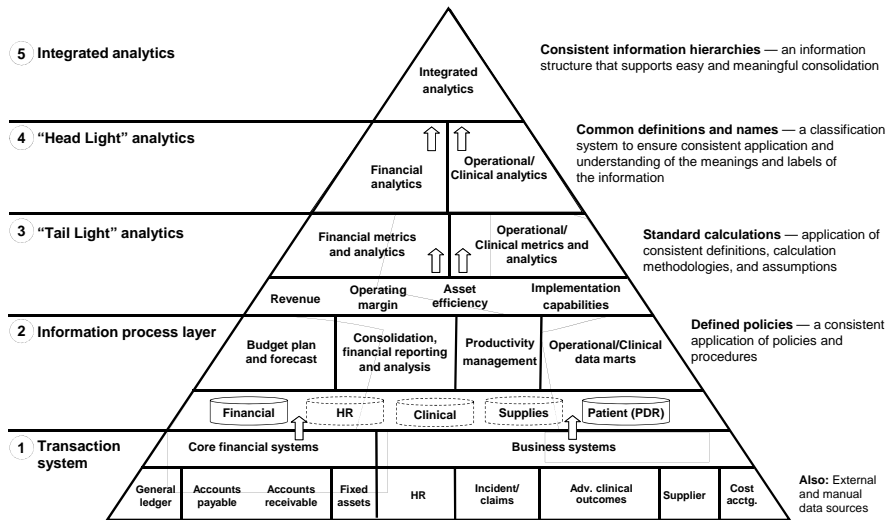
Why data analytics? — Enforcer perspective



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Integrated information management model



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Compliance data analytics — FY 2010

- Purpose
 - Identify educational opportunities
 - Mitigate financial and compliance risks
- Stakeholders
- Methodology
 - Utilize data analysis to identify potential areas of vulnerability
 - Perform testing of a small random sample
 - Designed as quality reviews


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Compliance data analytics — FY 2011

- Purpose
 - Develop internal capability to mine data
 - Identify potential vulnerabilities
 - Identify educational opportunities
 - Mitigate financial and compliance risks
- Ability to compare data across CHI entities
 - IPPS hospitals
 - Critical access hospitals


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Compliance data analytics — FY 2011 (cont.)

- Methodology
 - Risk-based auditing approach
 - Pull from OIG/DOJ/RAC focus areas
 - Utilize claims data from CHI data warehouse
 - PEPPER data as benchmark
 - Identify potential risk populations and outliers




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Compliance data analytics — FY 2011 (cont.)

- Inpatient risk areas
 - PEPPER target areas
 - Medical and surgical short stays
 - MS-DRG with and without complication/co-morbidity
 - Cardiac procedures (stents, defibrillators)

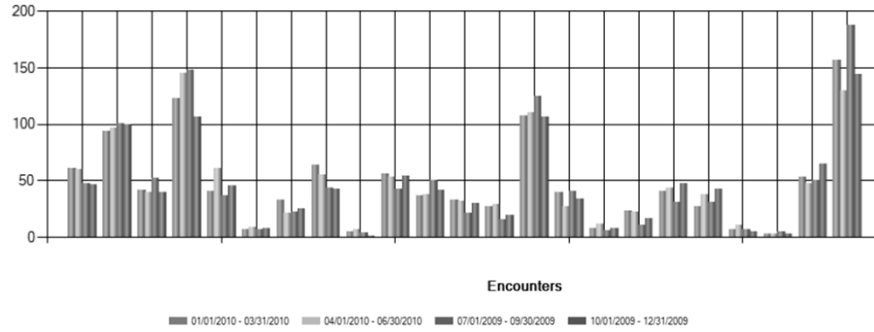



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Sample three-day stay with SNF transfer

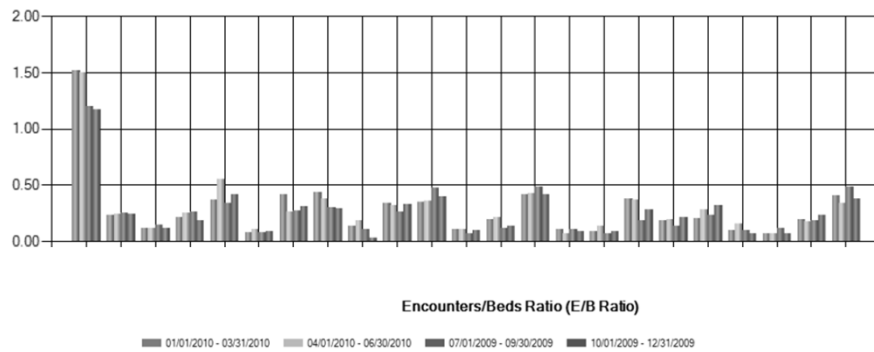


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Sample three-day stay with SNF transfer (cont.)



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Compliance data analytics — FY 2012

- Inpatient
 - RAC focus MS-DRGs
- Outpatient
 - Inpatient-only procedures performed on outpatients
 - Duplicate surgical procedure codes
 - Evaluation and management visits
 - Observation
 - Transfusions
 - Injections and infusions
 - Debridement procedures



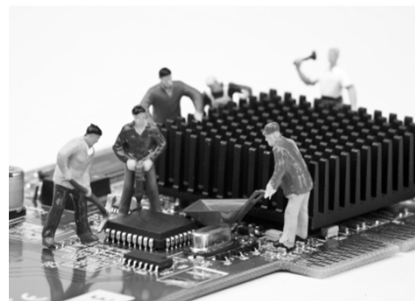

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Outcomes of compliance data analytics

- Confirmation that effective controls are in place
- Identification of best practices
- Collaborative opportunities
- Identification of risk areas
- Process improvement opportunities
- Data standards
- Education and training opportunities




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Next steps

- Restructure compliance auditing and monitoring function across CHI
- Continue to evolve risk-based auditing
- Increase internal data analytics by utilizing enterprise patient data repository
- Explore external data analytic resources with clinical services and other data owners/users
 - Medically necessary care settings
 - Clinical appropriateness
 - Other outliers
- Enhance denials management function




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How is your organization using data analytics for compliance auditing and monitoring?

Conclusion

- Just start!
- Partner with other data owners in your organization
- Identify current data analytic activity
- Understand what external data analytics is being done by regulatory agencies and payers
- Work with internal and external auditors to do risk-based auditing/monitoring
- It is an evolving journey!




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Questions?

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