Data Governance Toolkit

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Agenda

- The Value of Governance
- Data (Analytics) Strategy
- Data Content Management
- Data Quality & Data Stewards
- Analytic Prioritization
- Data Access and Visualizations
- Data Literacy & Self-Serve Analytics

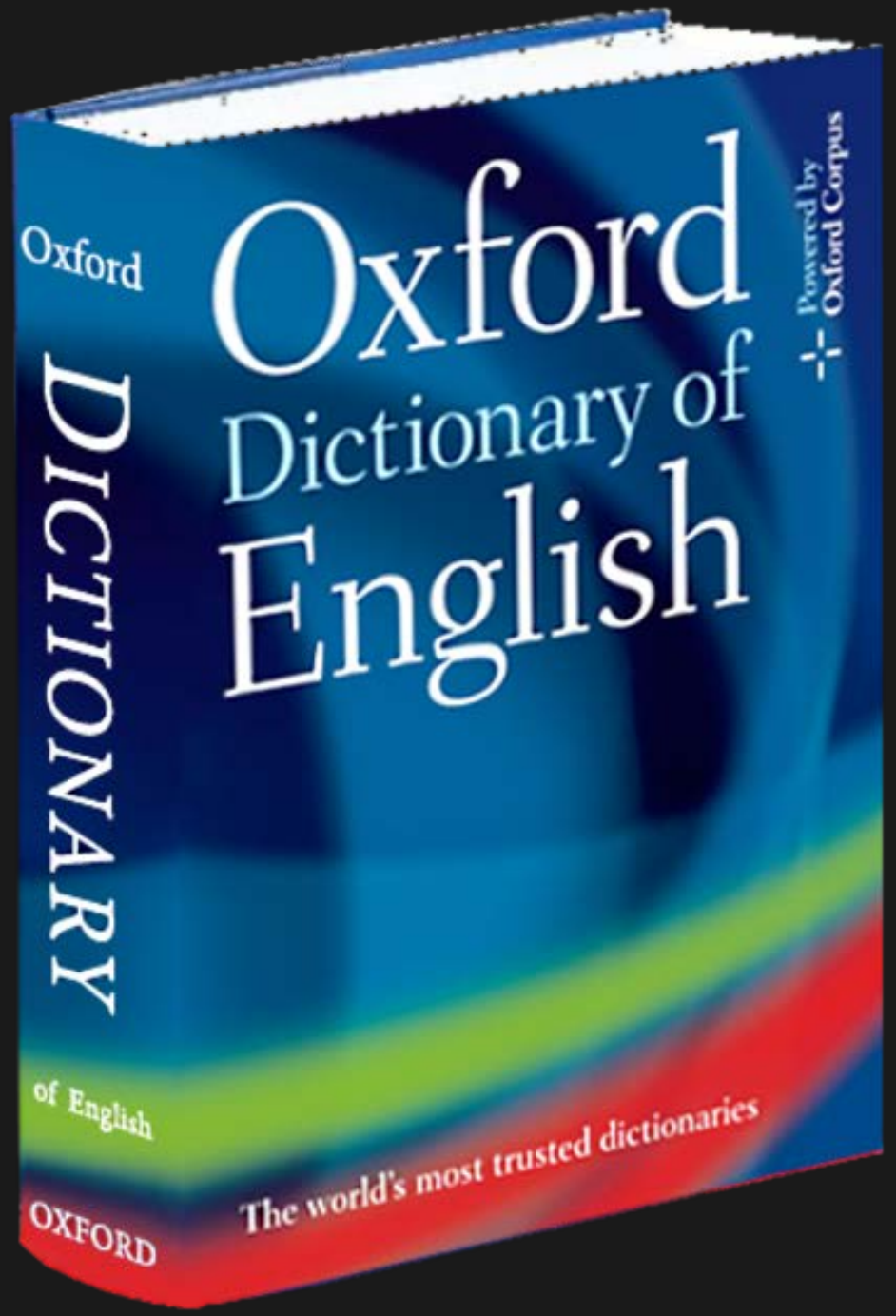
The Governance Council

IT governance is defined as the processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals.

-Gartner IT Glossary


Corporate
Board
Policy
Rules
Governance
Mission
Ethics
Decisions
Committees
Administration
Staff


Accountable
Consensus oriented
Transparent
Good Governance
Participatory
Responsive
Follow the rule of law
Equitable and Inclusive
Effective and Efficient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What Is Data Governance?

Data governance is the data management of all the data which an organization has to ensure that high data quality exists throughout the complete lifecycle of the data. The key focus areas of data governance include availability, usability, consistency, data integrity and data security and includes establishing processes to ensure effective data management throughout the enterprise such as accountability for the adverse effects of poor data quality and ensuring that the data which an enterprise has can be used by the entire organization.

-Wikipedia

What is Data Governance?

Data governance is the overall management of the availability, usability, integrity and security of data used in an enterprise.

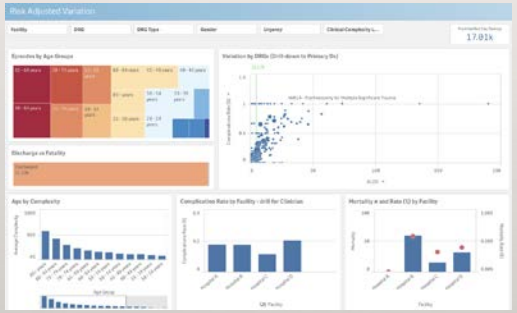
The Big Picture

Vision & Strategy

Data Content Management

Data Quality & Data Stewards

Analytic Prioritization



Access & Visualization

Self-serve & Data Literacy

What is your organization’s vision for it’s data?

Data Vision

- Data is now one of the most valuable assets of healthcare organizations.
- It is also the longest lasting asset.
- How can your organization most effectively use this strategic asset?
- How will you make it available and to whom will it be available?
- How will you keep it safe?
- What will your analytics program look like a year from now? 5 years? 20 years?

What is your organization's data strategy?

Data Strategy

- Enterprise Data Warehouse requirements
- How will clinical, operational and financial data relate?
- Centralized vs. Distributed Analytics (or Hybrid)
- What tools will team members use to access and view data?
- Who ensures data quality? Access? Security?
- Who makes sure the strategy is accomplished?
  - Who governs data?


Data Content Management
What's in your Enterprise Data Warehouse?

Data Content Management

- How is data stored, normalized and linked?
- How will this change over the next 3 years? The next 10?
- What is the roadmap for future data acquisition, storage, and access?
- How do you manage:
  - Activity-based costing data?
  - Genetic and familial data?
  - Bedside device data?
  - Wearables data?
  - Patient reported observations and outcomes data?
- And how will you manage all this 3-5 years from now?


Data
quality

Key Elements of Data Quality

Data Quality =
Completeness of Data x Validity of Data x Timeliness of Data

- Data Dictionary
- Data Standards
- Data Stewards

Data Dictionary Elements

- Define all key clinical, operational and financial elements
- Source of data element
- Formula used to calculate the element
- Identify all reports and dashboards that use the element
- Identify any structured coding schema
- Identify the “owner” (data steward) of the element

- Data dictionary should be readily accessible to all analysts and consumers of data
- Should be in an easily searchable format
- All reports and dashboards are included
- Must have a clear audit trail for all changes.
- Must have a consistent, transparent naming convention.
- Isn’t optional. It’s a cost of doing business.

Data Standards

- Internal standards
  - Facility codes
  - Department codes
  - HR codes
- External Standards
  - Billing codes (CPT, ICD10)
  - Clinical standards (SNOMED, LOINC, RxNorm)
  - Financial standards (State and Federal reporting, Bond rating agencies, etc.)

Data Steward

- Person responsible for monitoring and ensuring the integrity of one or more data elements.
- Should be an front-line team member with practical knowledge of how the data element is acquired and used—not a member of the C-Suite.
  - Some organizations appoint a data ”leader” to ”protect” the steward.
- Data Steward monitors all reports and dashboards that use his/her element to ensure the data element definition (found in the data dictionary) is used correctly.
- Data Steward is responsible for ensuring that any changes to the element (approved by Data Governance) are accurately promulgated across the enterprise.

Analytic Prioritization

Who gets what when?

Analytics Prioritization Workgroup

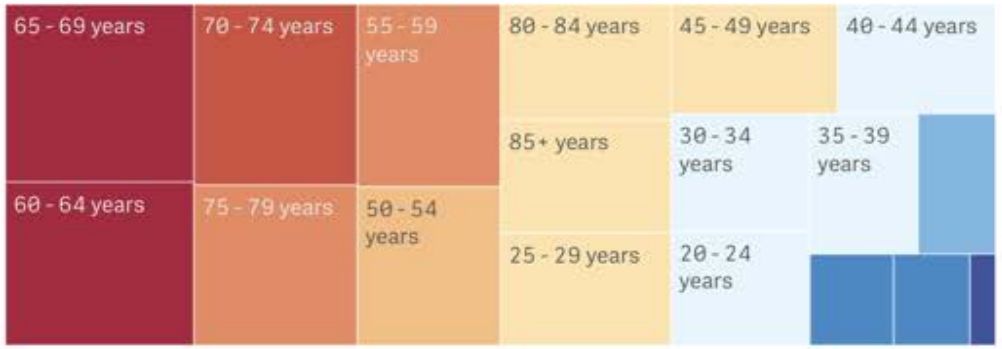
- Can be the same as Data Governance Committee, or a subcommittee.
- Must be a cross-functional team--broad representation.
- Should not be led by IT, but IT must have a seat at the table.
- Ideally, members serve relatively long terms as there is a significant learning curve.
- Use Portfolio Model as resources won't always (ever?) align with requests.
- Scoring tool is useful to educate requesting stakeholders.
  - Aligns prioritization with organization's strategic goals.
  - Use as a guide, not a club.
  - Simplicity enhances transparency and engagement.
- Gets easier in a distributed, self-service environment.

Risk Adjusted Variation

Facility | DRG | DRG Type | Gender | Urgency | Clinical Complexity L...

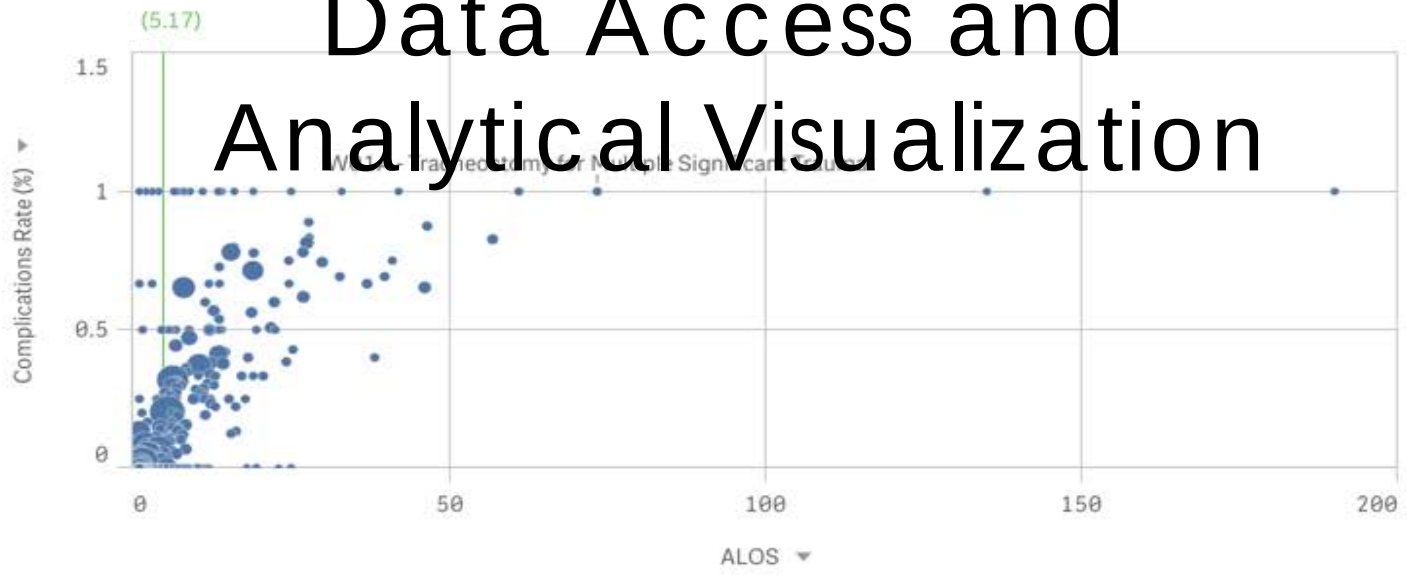
Potential Bed Day Savings
17.01k

Episodes by Age Groups



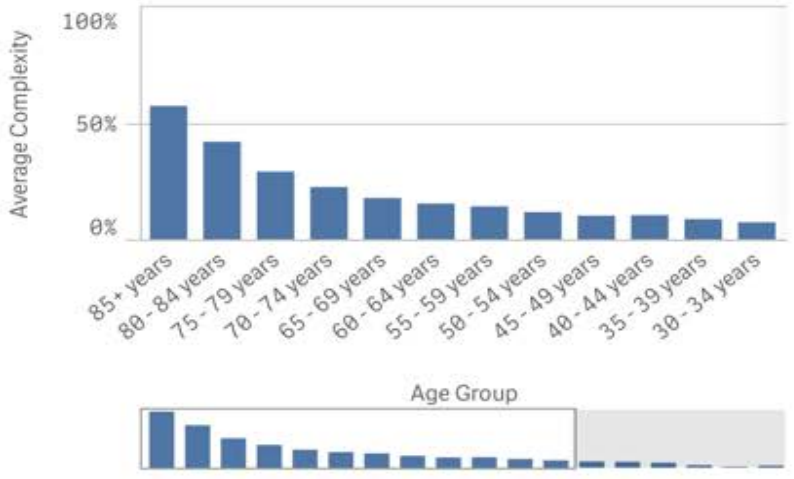
Discharge vs Fatality

Variation by DRGs (Drill-down to Primary Dx)

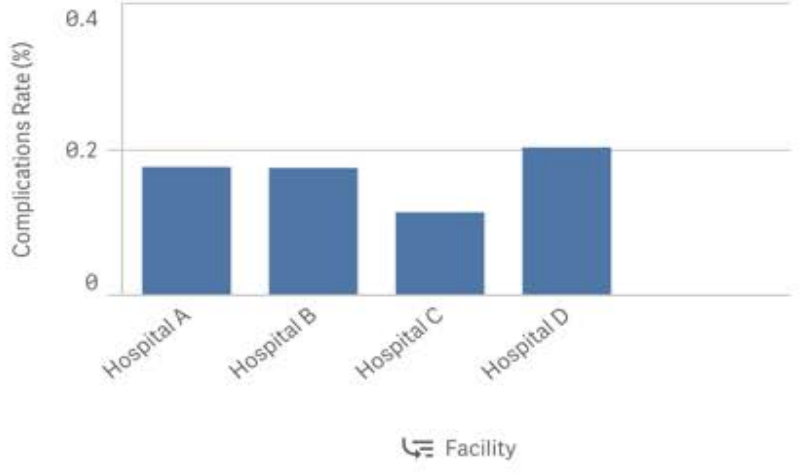


Data Access and Analytical Visualization

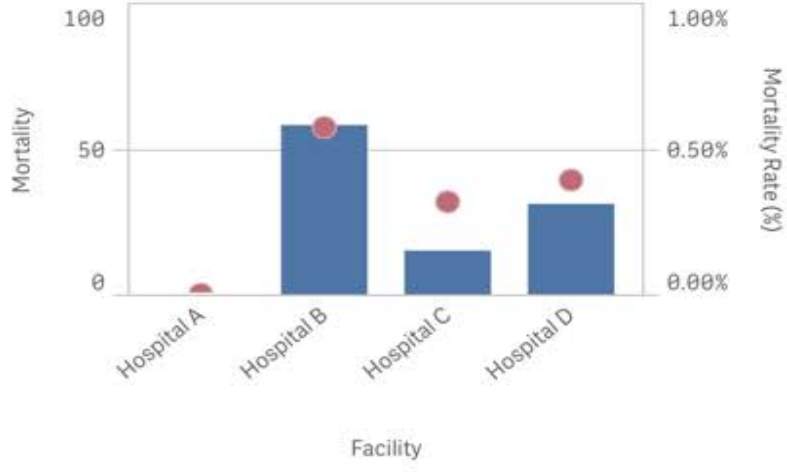
Age by Complexity



Complication Rate by Facility - drill for Clinician



Mortality # and Rate (%) by Facility



Data Access

- Who has access to a given report or dashboard?
- What hardware and software will be required?
- What training is required to access and use it?
- Who monitors access and makes changes as staff changes?
- What determines which tool or visualization will be used?
- In a self-service environment, how will data extracts be curated to assure consistency?

Analytical Visualization

- Define Visualization tool inventory and use algorithm.
- Style-guide to define how reports and dashboards will look across the enterprise.
  - Evidence-based visualization: match the right graph to the right data type.
- Ensure that definitions are easily accessible (linked or imbedded).

Self-Serve Analytics

Data-Literacy

What is Self-Serve Analytics?

- Data Analysts (Report writers and Dashboard Builders) imbedded in Clinical & Operational Departments instead of a centralized IT-based Reporting team.
- End-users can customize reports and dashboards to meet their needs.
- IT is responsible for extracting, curating and maintaining data marts that the distributed analysts can access to build reports and dashboards.
- Style-guide and governance required to maintain common look-and-feel.

Readers ➡ Publishers ➡ Editors ➡ Authors

Data Literacy

- Not everyone has the same level of comfort with data and visualization tools.
- How do you measure data literacy?
- How do you train data literacy?
- How do you align Analytics tools with your end-users skills?

So, What Should Your Data Governance Structure Look Like?

It Depends.

- Organization size, culture, maturity.
- Vision and Strategy
- Data Content Management
- Data Quality status
- Analytics portfolio and demand
- Access and visualization tools
- Self-service model?
- Data literacy assessment

Thank You.