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## Group on Information Resources Webinar

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# Data Governance in Academic Medicine

1pm Eastern  
June 18, 2015  
[www.aamc.org/gir](http://www.aamc.org/gir)



Association of  
American Medical Colleges

# Today's Webinar - Agenda

- Why?
- How?
- What?
- Questions



September 30-October 2, 2015  
JW Marriott Austin  
Austin, Texas



# Today's Speakers



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# Why Data Governance for AMCs?

Data Governance informs and supports each AMCs continued educational, research and clinical world-class leadership in the global healthcare mission.

Provides the information foundation for:

- Ensuring rigorous regulation and compliance reporting – risk mitigation against costly infractions and fines and most importantly data loss
- Quickly and accurately merging historical, silo-ed “shadow systems,” and various clinical and research information sources such as new or legacy EMR systems
- Rapidly adjusting to healthcare delivery paradigm changes such as from fee-for-service to cost sharing; ICD-9 to ICD-10, etc.
- Analytics, analytics, analytics – ensuring data-driven actionable decision making, trend analysis, pattern recognition, operational efficiency



# Why Data Governance for AMCs?

Eliminates the biggest barrier to successful Analytics and BI program initiatives and project success: poor data quality.



*Business intelligence is 10% presentation using any BI tool...*

*...and 90% data definition, quality and integration.*

*(Projects can often overrun by significant amounts because of business analytic requirements ambiguity and poor data quality in the source systems)*

# Best Practices in Data Governance

## What is Data Governance?

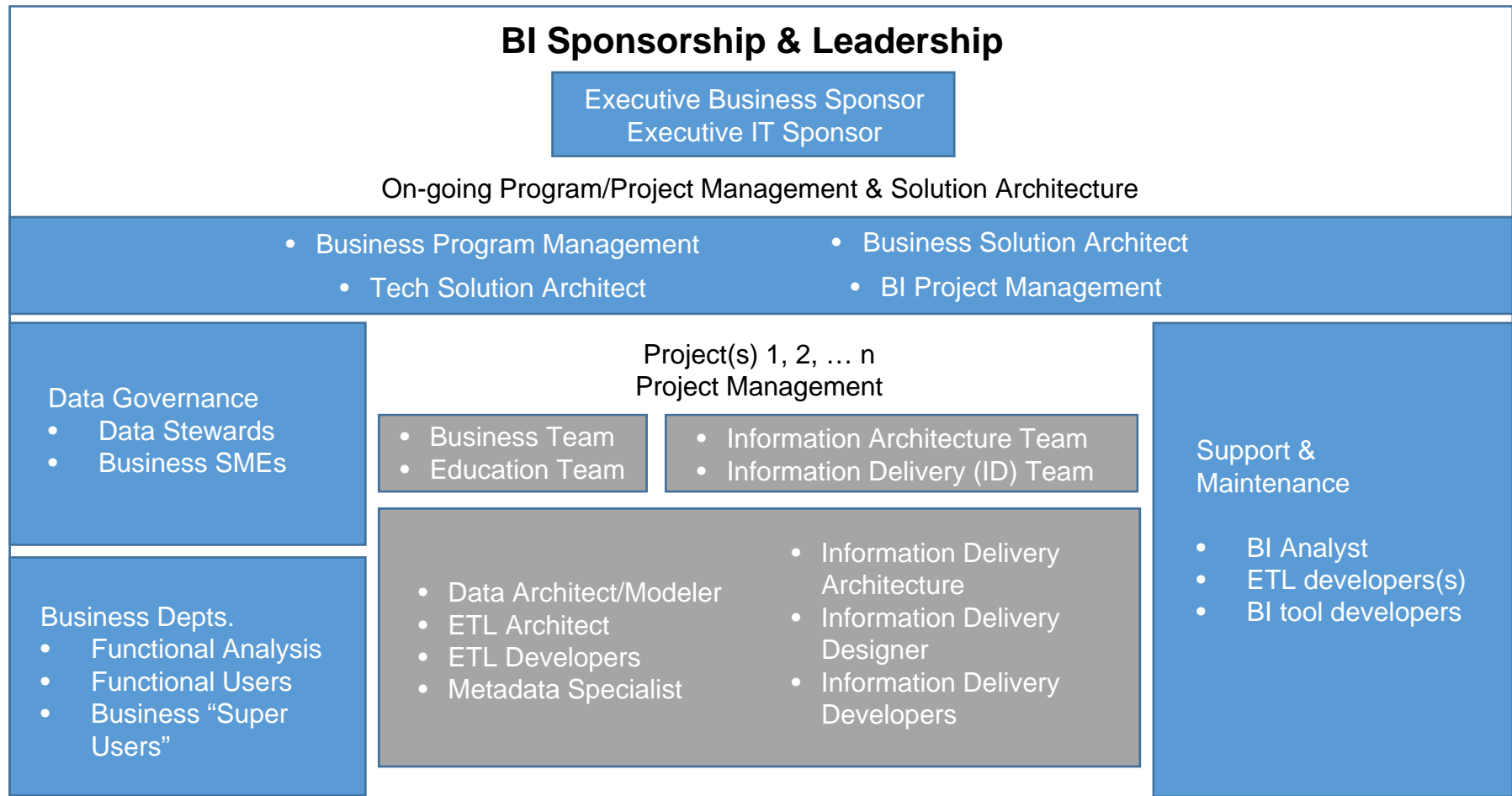
TDWI definition covers its components and goals:

*“Data Governance is usually manifested as an executive-level data governance board, committee, or other organizational structure that creates and enforces policies and procedures for the business use and technical management of data for the organization. Common goals of data governance are to improve data’s quality, remediate its inconsistencies; share it broadly; leverage it for competitive advantage; manage change relative to data usage; and comply with internal and external regulations and standards for data usage.”*

Basically, data governance is an organizational structure that oversees the broad use and usability of data as an enterprise asset.

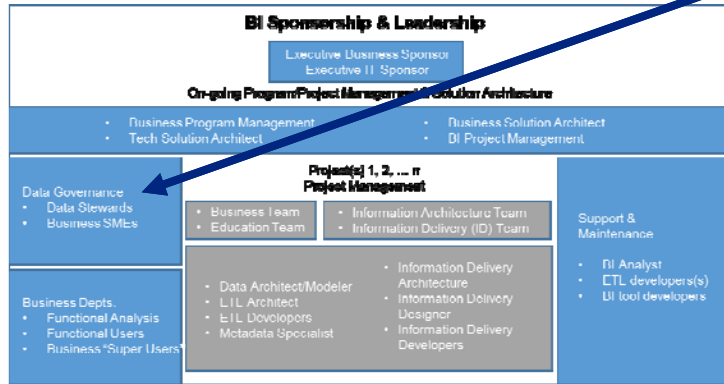
# Establish a BI Center Of Competency (BICC)

Can be either a virtual or a separate unit. It also can be centralized or decentralized. It seeks to remove the organizational separation of business and IT for those engaged in BI work - cross functional.





# Data Governance – Best Practices



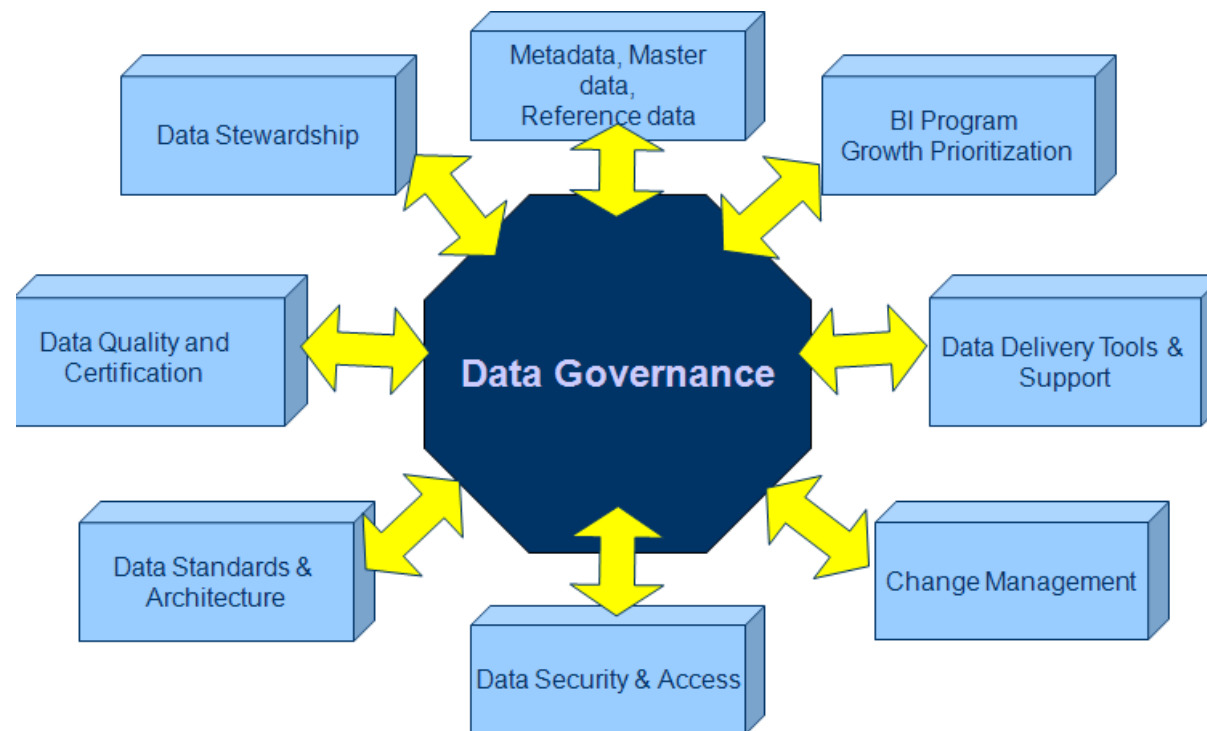
Among the key components of any BI competency center is the Data Governance group.

- The Data Governance group is chartered with ensuring consistent, conformed organizational-wide data definitions and defining processes for the validation and maintenance of this data.
- For most BI projects, approximately 90 percent of the effort is expended dealing with issues of data analysis, data acquisition and data quality.
- *Business constituents must own developing the business rules by which the data is transformed, integrated and cleansed.*

- The most successful approach for establishing a data governance program is to start small and identify a “motivator” such as a new analytics initiative as the catalyst.
- This approach has two benefits:
  - It helps to build executive support for data governance
  - It proves the benefit of governance on a smaller scale, making it easier to socialize governance within the organization

# Data Governance Functions

- The next step in establishing a data governance program is to decide which data governance functions to include
- Again, it is best to start small, prioritize the functions, and build gradually



# Data Governance Organization

- It is important to recognize that there is no single answer to the question of what a data governance organization should look like.
- An effective organization is one that is tailored to achieve specific data governance goals—and that integrates with the culture of the enterprise.
- It will typically have three layers: Executive Governance, Strategic Governance, Tactical Governance.

## Executive Governance



C-level executives. They ensure funding for data governance, serve as a court of last resort, approve standards, and agree to accept only analyses for which certified data was used. C-level support is critical to the success of the governance program.

## Strategic Governance



Business people responsible for setting standards, policies, and the overall direction of the governance organization. Typically, a committee with rotating chairmanships. People at this level must have enough clout and insight to make intelligent, enforceable, decisions about data governance processes and standards. The stakeholders for the “motivator “ BI project usually are the founding members.

## Tactical Governance

Data stewards reside at this level and may be organized by subject area, major application, business unit, etc. They are the people who take ownership of the data and can drive data quality changes into the source systems and processes. They are responsible for ensuring that the data captured and reported is accurate, accessible, timely, and usable for decision making.

# Example of an Initial Start Up Data Governance Organization

## Start Up Data Governance Tasks:

- Identify initial Data Governance Council and Board members
- Convene kickoff meeting – “Data Governance 101”
- Create charter and schedule of meetings
- Design and develop meta data repository
- Begin data governance process in tandem with business intelligence business requirements gathering.

# Data Governance Challenge

No “magic bullet” will deliver data governance. To be effective, data governance requires commitment at all levels of the organization and must embrace people, processes, software, and executive buy-in and support.

*Define, define.* Data governance is a major challenge. Issues like common definitions are a difficult. Health Care data has special challenges:

- Heterogeneity – ( images, text, written reports, audio, etc.)
- Some concepts lack single preferred notation – standardized vocabulary
- Privacy Issues for both patient and provider (HIPAA)
- Volume (depending on subject area: patient and visit data, operational data, clinical data, financial data, research data)



# DATA GOVERNANCE IN REAL AMCS

# Case Study 1 – About the Org

- Fully integrated AMC
  - Centralized administrative services (including IT)
  - Centralized senior leadership
- Single instance of a fully integrated EMR
- Significant research enterprise (\$200+M/year in NIH funding)

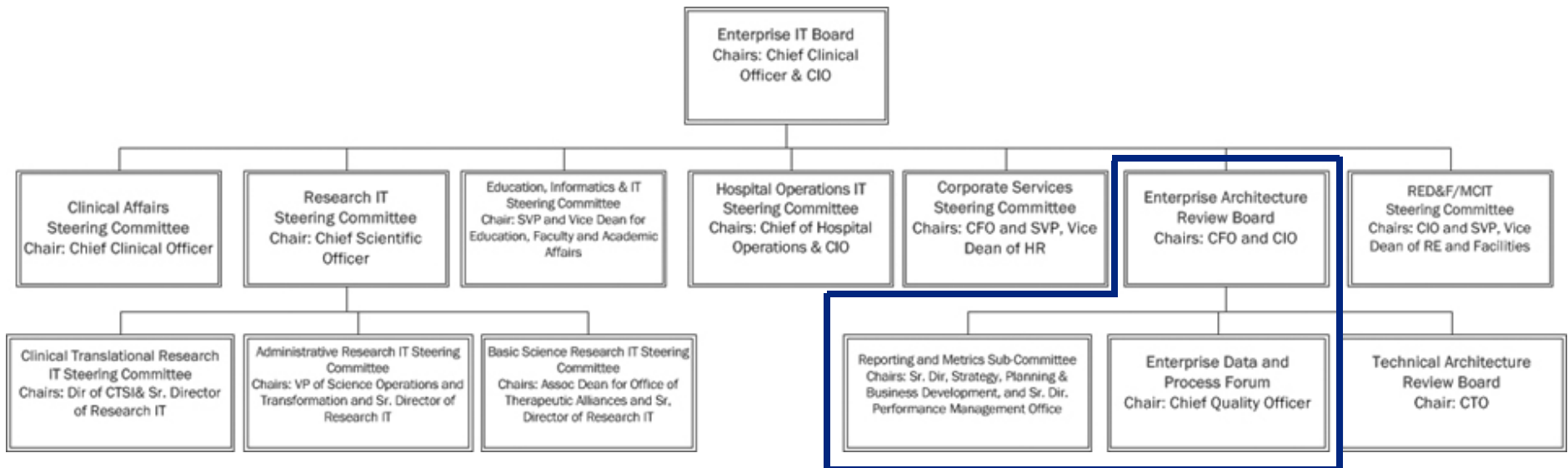
# Data and Analytics

- Purpose built enterprise data repository for reporting dashboards
- Analytics/Business Intelligence group in IT
- Department/unit level analytics occurring across enterprise

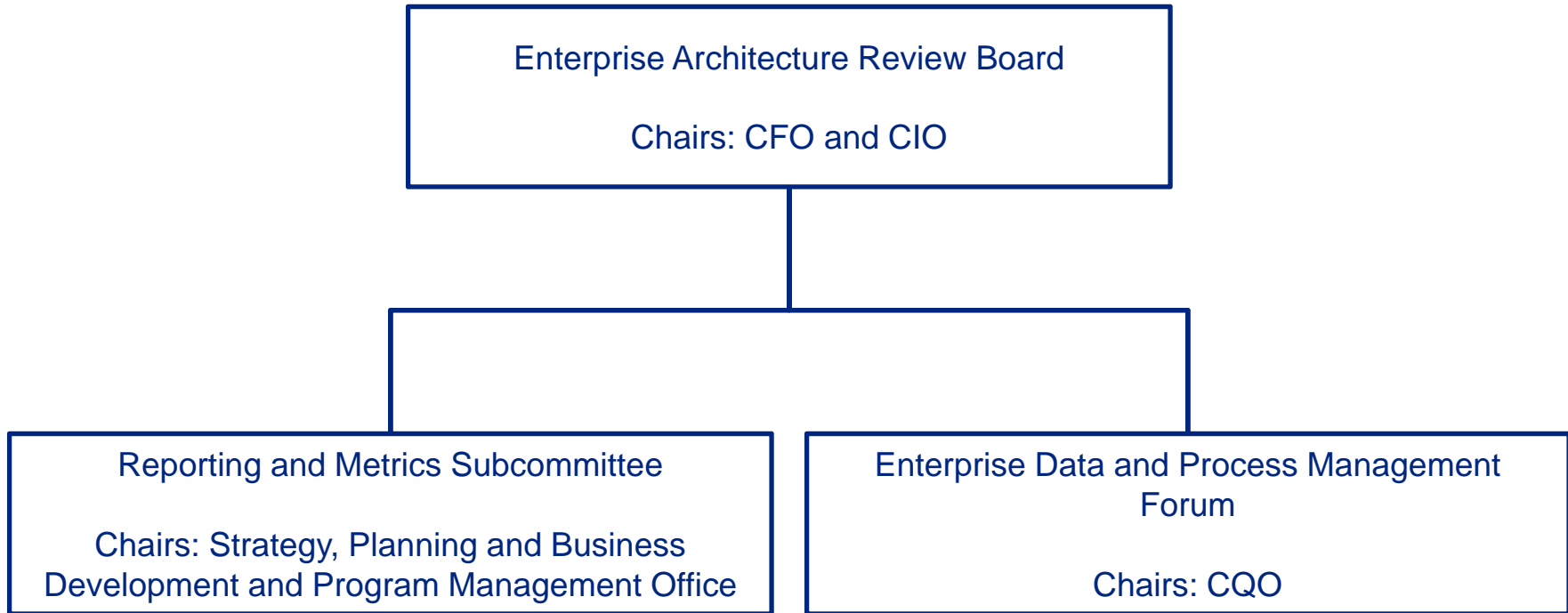


# Data Governance Structure

- Exists within IT governance



# Data Governance Structure



- Committees chaired by the business
- Approximately half the membership is IT

# Data Governance Operations

<p>Home</p> <p>Glossary</p> <p>How to Add a metric to the Glossary</p>	<h2>Enterprise Metrics</h2>
<h3>General Metric Information</h3>	
<p><b>Name</b>  <b>Effort Hour</b>          Name of the metric</p> <p><b>Definition/Description</b>          Effort spent in activities related to teaching or devoted to the development of new approaches and improvement of new or current courses</p> <p>List the definition/description of the metric</p>	<p><b>Abbreviations, Acronyms</b>          EH          Any acronyms, e.g. LOS</p> <p><b>Inclusion/Exclusion Criteria</b>  <b>Cohort/Inclusions</b>          Population or non-person group included in the metric</p> <p><b>Cohort/Exclusions</b>          Population or non-person group excluded from the metric</p>
<p><b>Metric Owner/Contact</b>  <b>Owner</b>          Dianna Jacob          Person accountable for the metric and its content</p> <p><b>Contact</b>          Melvin Rosenfeld; Joel Oppenheim          Person responsible for the accuracy (quality) and timeliness of the metric data</p> <p>Metric Reviewed? <input checked="" type="checkbox"/></p>	<p><b>Data Source</b>          List the source system(s) for the data that comprise the metric</p> <p><b>Data Source - Numerator</b>  <b>ALEX Academic Calendar</b>          Authoritative source system of the data/metrics that comprise the numerator</p> <p><b>Data Source - Denominator</b>          Authoritative source system of the data/metrics that comprise the denominator</p> <p><b>Data Source (other)Source System:</b>          Authoritative source system if numerator/denominator do not apply to the metric</p> <p><b>Format</b>          hour          e.g. percent or unit of measure</p>
<p><b>Calculation</b>          The calculation of the metric  <b>Numerator</b>          contact hour          Elements that comprise the numerator of the metric that, together with the denominator, create the metric</p>	<p><b>Components</b>  <input checked="" type="checkbox"/> <b>Contact Hour</b></p>

# Data Governance Operations

- Commitment to data quality at the source
- Analytics operations are managed within IT
- Initial data focus on core administrative data that crosses the mission needs
- Initial metrics committee focus on executive dashboards

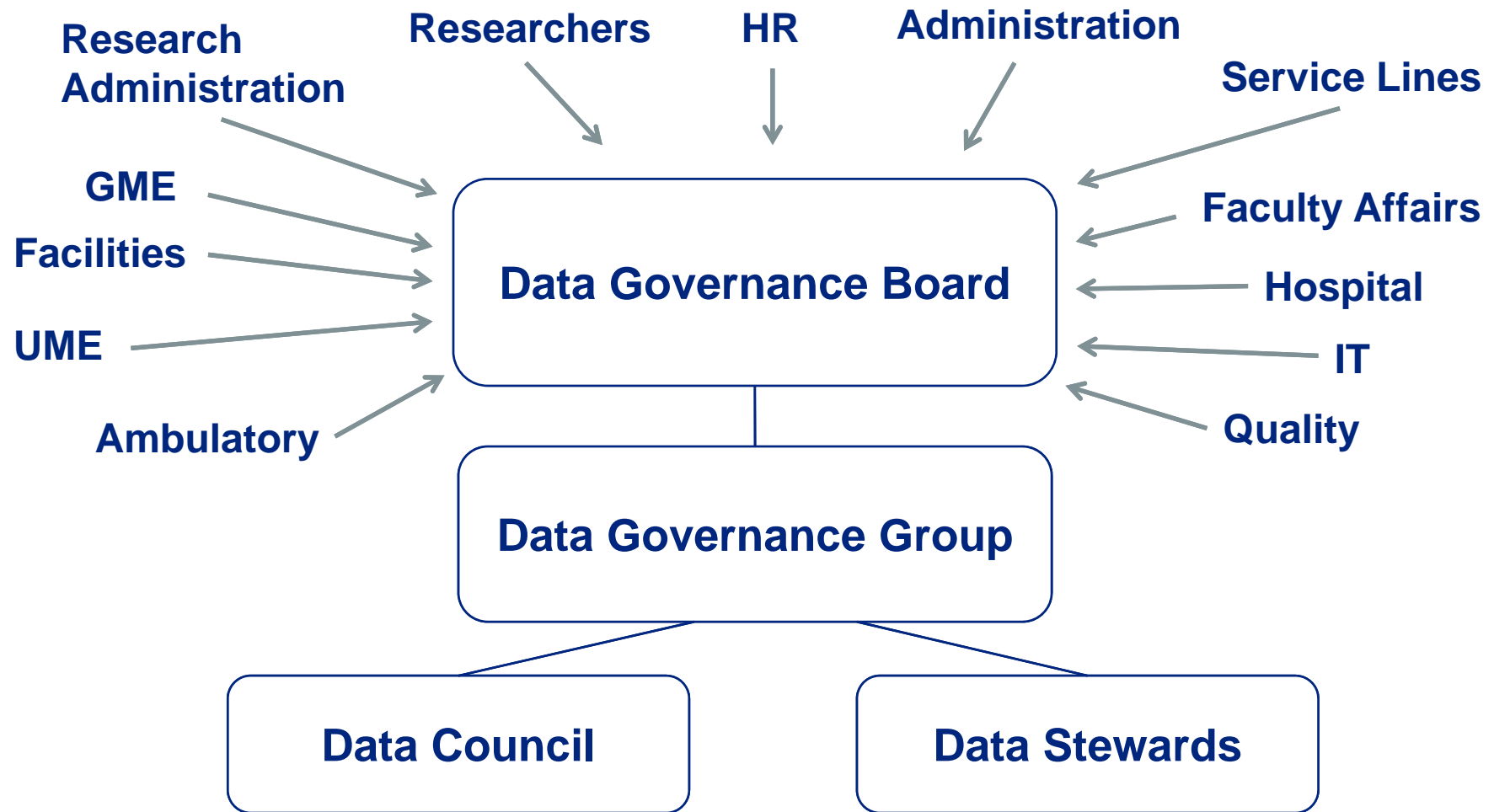
# Case Study 2 – About the Org

- Large Health System-based AMC
  - Some centralized administrative services
  - Centralized executive leadership
- Multiple instances of multiple EMRs
- Smaller research enterprise
- New medical school, long standing GME program

# Data and Analytics

- Multiple warehouses,
  - Purpose built for analytics
  - Facility-specific
- Analytics/Business Intelligence group in IT
- Advanced analytics group functioning independently
- Department/unit level analytics occurring across enterprise

# Data Governance Structure



# Data Governance Structure



- Board is comprised of senior leadership
- Data governance outside of IT (but with dotted line to CIO)



# Data Governance Operations

- Commitment to data quality at the source
- Initial data focus is combination of:
  - Core administrative data
  - EMR data
- Initial metrics focus is on:
  - Care management
  - Health-system wide quality metrics
  - Research patient cohort identification

# Case studies - Similarities

- Leadership support
- Business involvement
- Commitment to data quality at the source
- Reliance on good data stewardship
- Starting with administrative data
- Transparency of data

# Case studies - Differences

- Focus of resources within vs. outside of IT
- Dedicated Governance team
- Multiple data governance committees

# Data Governance – Things to Consider

- No “magic bullet” will deliver data governance
- There are multiple ways to do this right
- It’s the concepts that matter
- Every organization is a little different
  - Scope
  - Scale
  - People
- Every organization’s data is different – sort of
- It is about the data, but it is *really* about the people

# Questions?



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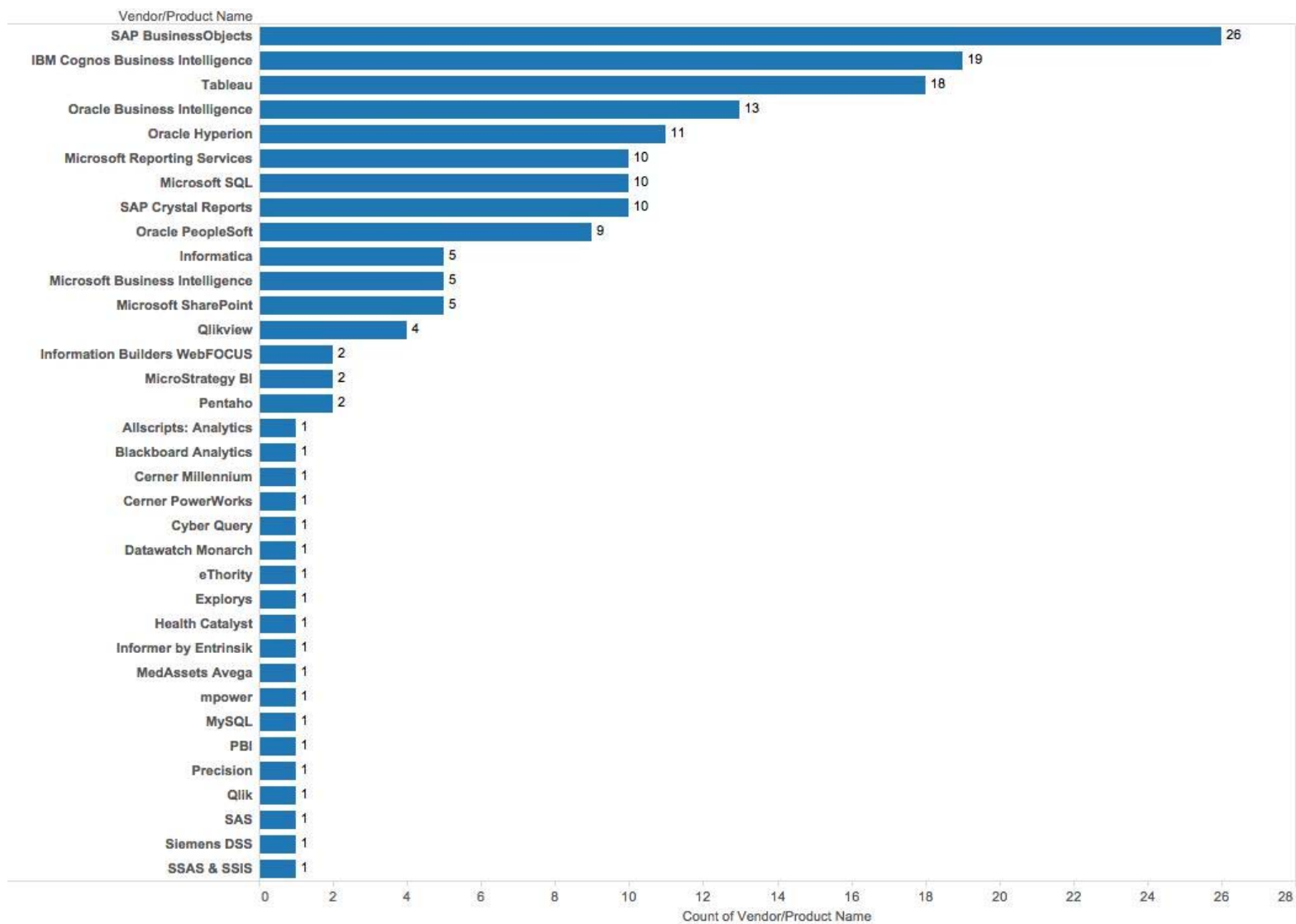
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For information about upcoming data webinars, the DATA symposium, or where to find this recording, please visit [www.aamc.org/gir](http://www.aamc.org/gir) or contact Ethan Kendrick at [ekendrick@aamc.org](mailto:ekendrick@aamc.org).



# Business Intelligence Tools at Medical Schools

Source: 2014 GIR Medical School IT Survey [www.aamc.org/gir](http://www.aamc.org/gir)



Count of Vendor/Product Name for each Vendor/Product Name. The data is filtered on Status, which keeps Implemented, In Process and Planned. The view is filtered on Vendor/Product Name, which excludes Null, . and to be determined.

