

The Seven Simple Practices of Health Care Data Governance

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Abstract

Data is now one of the most valuable assets in any organization, especially as we transition to a more analytically driven health care industry to fuel our progress against the triple aim of health care transformation: better care for individuals, better health for populations, and lower costs. Data is often the longest-lasting asset in any organization, potentially outliving facilities, devices, and people. It is essential then that we implement the structures and processes that will ensure the organization's ability to generate maximum value from the data for its immediate purposes and over the long run. In short, it is imperative that we implement effective data governance practices to ensure data's accuracy, completeness, and consistency of use throughout the organization.

Introduction

According to the *New Oxford American Dictionary*, governance, in general, suggests the act of controlling, influencing, or regulating a person, action, or course of events. The Latin origins are found in *gubernare*, which means to steer or rule. In the past few years, as the value and persistence of data were better realized, the term *data governance* emerged to describe the concept of managing and influencing the collection and utilization of data in an organization. It is through data governance that organizations drive the quality of data collection and standardize its practical applications to meet the business and clinical objectives of the organization. Specifically, data governance requires oversight to ensure data's accuracy, completeness, and consistency of use throughout the organization.

As health care organizations enter into the risk contracts and form the accountable care organizations (ACOs) that are the hallmark of US health care reform, the role of data takes on increased importance. Access to data is essential to understanding and managing risk, and delivering efficient and effective care. If we accept the assertion that health care is a knowledge-delivery industry—that its primary aim is the application of specialized skills, tools, and knowledge—then it is our obligation to exploit the data assets in our clinically integrated networks to augment and optimize that aim.

While information and data security is a long-standing body of practice and knowledge in many corporations, data governance is less mature. Furthermore, while aspects of data governance have been implemented in the financial services industry for decades, health care lags significantly. As a result of this lesser maturity, there is a tendency to operate in extremes, with either too much governance or too little. Over time, as data and analytic maturity increases, the health care industry will find a natural equilibrium. Although data governance functions are not exclusive to business intelligence (BI) initiatives, their absence is often most visible in an enterprise's analytic outputs. For this reason, health care's data governance efforts have most recently been rooted in BI initiatives. In the [Healthcare Analytic Adoption Model](#), aspects of data governance are essential as early as Level 2, and a [robust](#) data governance function is required in order to achieve the conditions of Level 5 maturity.



Related Research

See IT Strategy Council Research Note "[Getting Started on Data Governance](#)" (January 2013)

Figure 1: Healthcare Analytic Adoption Model

Level 8	Per Unit of Health Payment & Prescriptive Analytics	Contracting for & managing health. Tailoring patient care based on population outcomes.
Level 7	Per Capita Payment & Predictive Analytics	Diagnosis-based payment & managing risk proactively
Level 6	Per Case Payment & The Triple Aim	Procedure-based financial risk and applying “closed loop” analytics at the point of care
Level 5	Accountable Care & Suggestive Analytics	Measuring evidence-based care of populations which also suggest adjustments to individual patient care
Level 4	Automated External Reporting	Efficient, consistent production & agility
Level 3	Automated Internal Reporting	Efficient, consistent production
Level 2	Standardized Vocabulary & Patient Registries	Relating and organizing the core data
Level 1	Integrated, Enterprise Data Warehouse	Foundation of data and technology
Level 0	Fragmented Point Solutions	Inefficient, inconsistent versions of the truth. Cumbersome internal and external reporting.

Beyond today’s needs, the demands of data sharing as required for population health management and anticipated for the later phases of Meaningful Use interoperability standards, will rely on effective data governance practices among coordinating entities.

A new body of knowledge can be a ripe ground for confusion. Below are seven simple practices of data governance that can be used as a self-guided tour through the maze of puzzling, often conflicting advice.

1. Balanced, Lean Governance

The Data Governance Committee should practice a cultural philosophy that believes in governing data to the least extent necessary to achieve the greatest common good. Quite often, organizations will either over-apply data governance in their enthusiasm for the new function, or under-apply data governance due to their lack of experience. The best approach is to start off with a broad vision and framework, but limited application, and expand the governance function incrementally, only as needed, and no more. Ensure a narrow focus by choosing meaningful data targets aligned with enterprise priorities. To ensure this alignment, the Data Governance Committee should be a subcommittee to an existing governance structure such as an IT or BI Executive Committee. The committee should have the authority necessary to institute inevitably controversial changes to workflows, resolve data quality conflicts, and develop complex data acquisition strategies designed to support the strategic clinical and financial optimization of the organization. Its membership should include front-line employees as data stewards and/or subject matter experts (SMEs) who are knowledgeable about the collection of data in the source transaction systems such as the EMR, cost accounting, scheduling, registration, and materials management systems. Data stewards are invaluable to the mission of the Data Governance Committee.

When in doubt, govern less, not more. Keep it lean. Grow slowly and carefully into the need for more.

2. Data Content

The Data Governance Committee should plan a multi-year strategy for data acquisition, seeking to constantly expand the data ecosystem that is available for analysis in the business of health care delivery and health management. The committee will need to balance immediate needs, such as quality reporting and report automation, and prepare for future demands such as activity-based costing data, genetic data, bedside devices data, and patient-reported observations. Building and acquiring the systems to collect this data is the first step in the analytic journey, and can take as long as five years to complete. All of the aforementioned data sources are required to progress through the [Healthcare Analytic Adoption Model](#).

3. Data Quality

Overseeing and ensuring data quality is probably the single most important function of data governance. Ideally, the Data Governance Committee is engaged with all priority data in advance of when it is needed, ensuring a sound data basis for the analytics. When low-quality data has a negative impact on the accuracy or timeliness of the organization's decision making, the Data Governance Committee must be capable of quickly reacting to these issues and enforcing the changes required in source data systems and workflows that are necessary for raising data quality. Simply defined, data quality is a function of the completeness, validity, and timeliness of data. The Data Governance Committee must make each of these variables in the data quality equation a leadership and tactical priority.

4. Data Access

Increasing access to data, across all members of the enterprise—including external stakeholders, members of the community, and especially patients—is a critical function of the committee. While the Information Security Committee tends to protect and restrict access to data, the Data Governance Committee should create tension in the opposite direction. In the most effective organizations, the Data Governance and Information Security Committees are combined, thus forcing the members to balance the tension internally and streamline what can otherwise be lengthy decision making and reconciliation between the two committees. Data democratization demands broad and agile access, complemented with the appropriate safeguards such as audit trails and time-limited privileges.

5. Master Data Management

As the organization progresses in analytic maturity and utilization, the Data Governance Committee will become the steward for defining, encouraging the utilization of, and resolving conflicts in master data management. This role will cover local data standards (facility codes, department codes, etc.), as well as regional and industry standards (CPT, ICD, SNOMED, LOINC, etc.). In addition to coded data standards, the committee will also become involved in the standard use of algorithms to bind data into analytic algorithms that should be

consistently used throughout the organization, such as calculating length of stay, determining readmissions criteria, defining patient cohorts, and assigning provider attribution to patients participating in accountable care or patient-centered medical homes.

6. Data-Informed Decision Making

It serves no purpose to increase the quality of or access to data if the beneficiaries of the access are not both motivated to use the data and knowledgeable about its application. Senior staff must lead the transformation of the corporate culture to one of data-informed decision making. Further, staff must be literate about the interpretation and meaningful use of data as it applies to their role in the organization. Data-informed decision making can be achieved by:

- Teaching constituents about recognizing good data from bad data in the context of their decision-making environment and role in the organization
- Understanding data analysis tools and their relevant uses
- Obtaining knowledge of process improvement techniques that are driven by data
- Implementing practical statistical techniques that can be applied to improve decision making when data is incomplete or scarce
- Very deliberately collecting and disseminating metadata, especially that which is associated with enterprise data warehouse (EDW) content.

The Data Governance Committee should champion the cause of data-informed decision making and data transparency, especially around quality and cost. These campaigns should include the use of slogans, spokespeople, role models, celebrations of success, and other attributes of successful causes that have proven to be effective within the organization.

7. Analytic Prioritization



Related Research

See IT Strategy Council Research Note "[Mayo Clinic Data Governance](#)" (September 2013)

The Data Governance Committee should be involved with the Executive Committee's development of the strategic analytic plan, and then play an active role in ensuring the requirements of that plan are implemented. The Data Governance Committee should assess the readiness of the targeted data to adequately support the goals of the Executive Committee's priorities and create and execute any required remediation. Inevitably, there will be more demand for analytic services than there are resources available to meet that demand. The Data Governance Committee cannot resolve every priority, but it can seek to balance strategic corporate priorities with tactical requests from the clinical and business units by advocating a resource allocation designed to support both. Consider a 60/40 split between centralized and decentralized analytic resources—that is, 60% of the organization's analytic resources should be dedicated to top-down, centrally managed priorities, while 40% of the resources should be distributed to support the tactical requirements of departments, business units, clinical service lines, and research.

Get Started Today

If you are struggling to understand and implement a data governance function in your organization, following these seven simple practices will help you avoid all of the major pitfalls of either under-governing or over-governing. Of utmost importance, a lean and balanced data governance function will help your organization maximize the value of your data to deliver the best possible care and provide for the best possible health, at the lowest possible price.

Action Items



Related Research

See IT Strategy Council On-Demand Webconference [“Applied Business Intelligence”](#) (March 2013).

- Ensure data governance is lean and focused through explicit alignment with key enterprise strategies.
- Adopt a balanced approach to immediate needs and future requirements.
- Focus early on governing master data to develop standards that will be the foundation for future work.
- Make data quality the imperative of the Data Governance Committee.
- Increase access to well-governed data to empower operations stakeholders to use data to inform all decisions and process improvement initiatives.
- Include SMEs or data stewards in all aspects of data governance.
- Collaborate closely with executive teams to prioritize the data governance targets and maximize the value of your data assets.