7 Simple Practices of Health Care Data Governance
Structures and processes to ensure complete, timely, and consistent data

Summary
Data is now one of the most valuable assets in any organization, especially as we transition to a more analytically driven health care industry with the rise of artificial intelligence (AI) and business intelligence (BI). Data is often the longest-lasting asset in any organization, potentially outliving facilities, devices, and people. Organizations must create structures and processes that will generate maximum value from the data for its immediate purposes and over the long run. In short, we should implement effective data governance practices to ensure data’s complete, timely, and consistent use throughout the organization.

The challenge
Data governance describes the concept of managing and influencing the collection and utilization of data. With good data governance, organizations can drive the quality of data collection and standardize practical applications to meet business and clinical objectives. Specifically, data governance requires oversight to ensure data is accurate, complete, and consistent throughout the organization.

Access to data is essential to understanding and managing risk, as well as delivering efficient and effective care. Real-time data available through electronic health records (EHRs) and remote patient monitoring expands the volume and variety of data available. However, the increased access to data is not valuable until we turn that data into insights. The increased focus on population health and the rise of AI and BI drives the need for data governance.

Below are seven simple practices of data governance that serve as a self-guided tour through the maze of puzzling, often conflicting advice. The rest of the report will expand upon each of these seven practices.

1. Balanced, lean governance
2. Data content
3. Data quality
4. Data access
5. Master data management
6. Data-informed decision-making
7. Analytic prioritization
Balanced, lean governance

The data governance committee should govern data as little as necessary to achieve the greatest common good. 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, then expand the governance function incrementally. 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 data governance committee should have the authority to:

- Institute inevitable controversial changes to workflows.
- Resolve data quality conflicts.
- Develop complex data acquisition strategies designed to support the organization’s clinical and financial goals.

The data governance committee should include frontline employees who can serve as data stewards and/or subject matter experts (SMEs). These employees should be knowledgeable about the collection of data in source transaction systems (such as EHR) and management systems (such as cost accounting, scheduling, registration, and materials).

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

Data content

The data governance committee should plan a multiyear strategy for data acquisition, seeking to constantly expand the data ecosystem that is available for analysis. Building and acquiring the systems to collect this data is the first step in the analytic journey, and it can take as long as five years to complete. The committee will need to balance immediate needs and future demand, as shown in the graphic below.

<table>
<thead>
<tr>
<th>Immediate needs</th>
<th>Future demand</th>
</tr>
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<tbody>
<tr>
<td>Quality reporting</td>
<td>Activity-based costing data</td>
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<tr>
<td>Report automation</td>
<td>Genetic data</td>
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<td></td>
<td>Bedside devices data</td>
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<td></td>
<td>Patient-reporting observations</td>
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3 Data quality

Overseeing and ensuring data quality is probably the most important function of data governance. It should be a leadership and tactical priority to ensure data is:

- Complete
- Timely
- Consistent

 Ideally, the data governance committee is engaged with all priority data before it is needed, ensuring a sound data basis for the analytics. The committee must quickly react to issues that impact the accuracy or timeliness of the organization’s decision-making. It must also enforce the changes required in source data systems and workflows.

4 Data access

Increasing access to data for all members of the enterprise—including external stakeholders, members of the community, and especially patients—is a critical function of data governance. 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. This forces members to balance stakeholder needs and streamline the decision-making and reconciliation processes. 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 an 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.).

The committee will also become involved in the standard use of algorithms to bind data into analytic algorithms that should be used consistently throughout the organization. Examples of such algorithms include those that calculate length of stay, determine readmissions criteria, and define patient cohorts.
Increasing the quality of or access to data is useful only if the beneficiaries of that access are both motivated to use the data and knowledgeable about its application. Senior staff must lead the transformation of the 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.
- 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 elements of campaigns that have been effective within the organization.

The data governance committee should be involved with the organization’s strategic goals, and then play an active role in implementing the strategic plan. The committee should determine if the targeted data can adequately support the organization’s priorities. It should then 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 demand, but it needs to balance strategic corporate priorities with tactical requests from the clinical and business units. To do that, the committee must allocate resources to support both groups. The breakdown of analytics resources should be:

- **40%** Distributed to support the **tactical requirements** of departments, business units, clinical service lines, and research
- **60%** Dedicated to **top-down, centrally managed** priorities
Summary

If you are struggling to understand and implement a data governance function in your organization, following these seven simple practices will help you avoid the major pitfalls of either under-governing or over-governing. A lean and balanced data governance function will help your organization maximize the value of your data to deliver the best possible care.

Action Items

1. **Balanced, lean governance**: Ensure data governance is lean and focused through explicit alignment with key enterprise strategies.

2. **Data content**: Adopt a balanced approach to immediate needs and future requirements.

3. **Data quality**: Focus early on governing master data to develop standards that will be the foundation for future work.

4. **Data access**: Make data quality the imperative of the data governance committee.

5. **Master data management**: Increase access to well-governed data to empower operations stakeholders to use data to inform all decisions and process-improvement initiatives.

6. **Data-informed decision-making**: Include SMEs or data stewards in all aspects of data governance.

7. **Analytic prioritization**: Collaborate closely with executive teams to prioritize data governance targets and maximize the value of your data assets.
Health Care IT Advisor

Research Team

Meg Aranow
Senior research director
maranow@advisory.com

Jordan Angers
Analyst
angersj@advisory.com