

Data Governance



Our Vision

Transitioning the focus from data to decision making to allow your organization to get the most out of their data assets and improve speed to value.

Our approach to governance will bring order to your business's data allowing for more effective and efficient inter-departmental interactions as well as providing clarity to and from executive leadership.

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What & Who

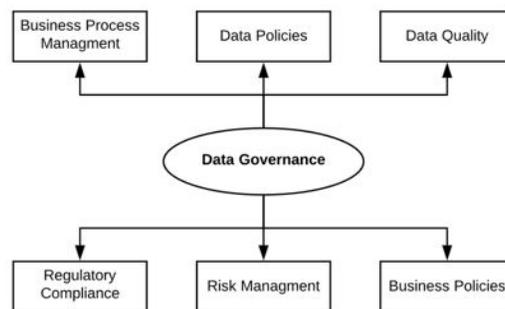
Industry best practices recommend that organizations identify and manage to a key set of performance metrics. However, executing on this strategy can be challenging. Instead of reviewing outcomes and determining the best action to take, executive leaders and staff spend their time debating terms, questioning inconsistencies, and dismissing results due to poor data quality.

What is Data Governance?

Data Governance is a collection of processes that ensures formal management of data assets within an organization. Data Governance is a necessary practice to allow the business to take control of performance management, and shorten the time between outcomes and decisive action. When properly implemented, Data Governance should end debates, eliminate wasted efforts that result in no decisions, and focus the organization on turning information into actions.

The first priority of Data Governance is always to create a common language for the business, and capture the required vocabulary in a Data Dictionary driven by business definitions for all key terms and metrics. The contents of the Data Dictionary can then define what additional processes are necessary, such as Data Stewardship and Data Quality Management.

By establishing a formal Data Governance practice and mandating that all data assets must be managed according to its processes, organizations guarantee that adding, deleting, or modifying information systems will work to clarify and support business processes rather than adding confusion.



Data Governance vs Data Stewardship

Data governance and data stewardship are both highly focused on consistency, accuracy and transparency, and focus on problem identification and resolution. The difference between data governance and data stewardship is that data governance is strategic while data stewardship is tactical. **Data governance** is focused on strategic items such as determining the committee structure, assigning roles and responsibilities, defining goals, establishing a communication and transparency plan, building policies and procedures, and creating accountability. **Data stewardship** is focused on tactical items such as defining and documenting the data, data

sources, business rules, data quality targets, metadata, and master data, and implementing data policies. Data stewardship takes a focused and tactical approach on identifying and resolving data quality issues as per the structure put in place by data governance.

What is its Use and Value?

An organization-wide Data Dictionary is at the heart of every Data Governance program. This document is distinguished from the more common data dictionaries, in that it includes the common business and technical definitions of all dimensions, and measures used throughout your organization, as well as their use in reporting. To use Healthcare data as an example, it is common for different reports to use the measure “readmission rate” to show how many patients are being discharged then readmitted within a certain period of time (standard being within 30 days). Already you can see if there is no governance around the term “readmission rate” we should not be surprised when one report shows this rate using 7 days, another 30 days, another all cause, and another same cause. This is a common pitfall that many organizations succumb to because they do not have a formal, published analytic reference. The data dictionary is equivalently important for your organization's internal consumers (executives, directors, administrators) as well as for your external data consumers (payers, accreditation committees, vendors). After the data dictionary is built out and agreed upon it should then be hosted in a secure yet transparent location so that all pertinent personnel are able to access and utilize its information.

Establishing Accountability

Data governance is about accountability. It is not enough to just make rules, it is essential to ensure they are being followed. These rules are inclusive of those mentioned above as well as rules implied by external policies such as HIPAA. Therefore, it is critical that Data Governance is a practice that is backed by executive leadership and direction.

Some organizations introduce a multidisciplinary Center of Excellence as a means of ensuring that, once rules are implemented, a centralized and coordinated effort is in place to act on those rules. Introduction of a Center of Excellence (COE) does provide visibility and accountability for business users into the process of developing and producing reports and analytic products. However, Data Governance expands this focus to ensure this is being managed across more than just the production of analytic products but also governing how those products can and will be used in decision making for the organization.



Who is involved in Data Governance and Stewardship?

The data governance committee is the governing body for building out the strategic items mentioned above (policies, procedures, communication plan, etc.). This committee should be guided by a data governance officer who is responsible for organizing the agenda for and facilitating the committee meetings, planning the activities performed by the committee, and also serving as a bridge between data governance and data stewardship (strategic and tactical). The data governance committee should be spearheaded by a part of the organization that recognizes fully the importance of standardizing definitions and data management throughout the organization, but the committee requires members from multiple different areas of the organization for input, support, and buy-in. Suggested members for the data governance committee would include each member of the C-suite and/or proxies for C-suite members if they do not have availability and/or depth of knowledge in a specific area of interest. For example, when creating definitions for the analytic reference it may be valuable to have more operational leaders present to ensure all of their perspectives are accounted for (department heads of Lab, Pharmacy, Radiology, ED, Acquisitions, Procurement, etc.). Another example would be while trying to determine policies and procedures for system updates based on data quality issues it would likely be necessary to have more representatives from IT leadership (Clinical, Financial, etc. system administrators). It is important that this committee be attended and driven by the C-suite as this group is making high level strategic decisions that have substantial impacts for the overall organization.

Data stewards are the team members who are either using the data frequently and/or have the ability to make adjustments (as needed) to resolve data quality issues. There should be a Data Steward Coordinator who is responsible for coordinating the meetings with data stewards to review ongoing efforts associated with implementing data governance policy, raising issues that may be seen, and verifying that key reference data are being kept up to date. This Data Steward Coordinator is more of a responsibility for an existing resource as opposed to a full time position (especially while just introducing the data stewardship process), but it could be someone in BI, analytics, or project management. Data stewards likely include Analysts, Developers, IT system administrators, Departmental Analysts and in a number of cases Managers/Supervisors/Directors that have system administration or reporting responsibilities. System administrators (Clinical,

Financial, etc.) would have stewardship responsibilities associated with resolving data quality issues or managing reference data within their respective source systems while BI team members would manage master or reference data not included in source systems.



The How's

How do we implement Data Governance and Stewardship?

Governance

Data Governance should have a more structured cadence for committee meetings. The goal with C-suite participation is to have less emergency, ad-hoc meetings and to, instead, have scheduled sessions to provide a common and final forum for resolving questions and setting policies to define key metrics and measurements for reporting and performance throughout the organization and ensure a consistent level of information quality for all reporting and analysis. It is also a forum for members to learn of new changes to the organization or to information systems that will need to be accounted for in the future.

It is absolutely critical for the Data Governance Officer to prepare the agenda and provide concise, direct supporting materials associated with each agenda item. The agenda and supporting materials needs to be distributed at least 3-5 business days prior to the Governance Committee meeting so that the members or their proxies can understand the key decisions that have to be made at that meeting and what the implications of the decision will be. This will keep the meeting focused on discussion and decision making rather than calls for more research.

Stewardship

Data stewardship follows a different process than data governance. Rather than meeting on a specific committee cadence, data stewards have ongoing responsibilities to escalate and resolve issues as needed. When issues arise, they should be presented to the data governance officer who will determine next steps. The data governance officer can decide if the identified issues should go more tactically to an ad-hoc meeting with data stewards to resolve or if the issues need to go to the data governance committee for strategic decisions prior to stewardship resolution. Discussions in ad-hoc data stewardship meetings will include in-depth discussions of issues to ensure understanding and root cause as well as to construct the appropriate solution or approach to resolving the identified issues across necessary systems. More consistent and frequent (weekly, monthly, etc.) data stewardship meetings and coordination are not abnormal, however, the coordinator will need to gauge the appropriate cadence based on the team and quantity of issues and/or action items identified.

While some of the activities performed by data stewards may include the need to go in and update records or adjust the formatting of fields in their systems, another frequent resolution will be the

creation of master data. Continuing with our Healthcare example, mastering data includes activities such as creating a Master Patient Index and/or a Master Provider Index but it also includes less frequently discussed items such as creating buckets for LOS (<3 days, 3-5 days, 5-7 days, >7 days). It is also the responsibility of the Data Stewardship Coordinator to facilitate internal and external data stewardship requests with externally managed system vendors as well.

Communication

Communication is another key element to how data governance and data stewardship are implemented. While the meetings discussed above are one form of communication and transparency, the goal is that this message is distributed outside of just these small groups of stakeholders and made more readily available throughout the organization. To do this it is important to create a site (file share or portal) that transparently shares the known data issues that exist within your organization, and the plans and status of initiatives to address the issues, in addition to the documents curated by the data governance committee such as the data dictionary, policies and procedures, and the contact information for the lead data governance officer in case someone needs to report an issue. It is also helpful to make available a data stewardship log that tracks changes that are made for monitoring purposes. Key contents of this site should include such items as:

- Metric definitions - Business and technical definitions
- Catalog of data sources and system analysts
- Catalog of master data sources and data stewards
- Overview of data stewardship action plans
- Supported reports and analytic products and the metrics they include
- Data lineage of derived metrics

This last point highlights a key requirement for the Data Governance Officer. In addition to being a strategic thinker and excellent organizer, they need very good written and verbal communication skills.



In the End

Results

As a term, “Data Governance” covers a broad spectrum of challenges, however, this should not discourage you from developing this within your organization. Remember to identify the key challenges your organization is struggling with, develop a plan of action identifying the problem areas within your current processes, and research the best tools to help resolve problems.

Data Governance software can be targeted towards a diverse array of functions to help bring your new processes into a centralized environment making both a simple and organized location for this new program.

After a successful implementation of your new governance framework your organization will benefit from:

- Creation of assets that are reliably updated with accurate and complete data while maintaining a stable platform and process for application support and deployment of new requests.
- Improved monitoring and tracking mechanisms for Data Quality and other data-related activities.
- Ability to provide standardized data systems, data policies, data procedures, and data standards.
- More accurate procedures around regulation and compliance activities.
- Help with instituting better training and educational practices around the management of data assets.
- Better resolution of past and current data issues.
- Lower costs associated with other areas of Data Management.

Other Real-Life Testimonies

Case Study: Steward Health Care's Data Governance Infrastructure

Summary: Development of analytic applications was leading to more questions and confusion than answers, as users were unsure what metrics meant and how they were calculated.

- Established an analytic reference and created standards to document business and technical definitions
- Defined a process for developers to review and cite the analytic reference in documentation requirements
- Documented process for updating the analytic reference for new business and technical definitions that arise for application development
- Linked metrics to reports that use them to assist with impact analysis if technical or business definitions change
- Created data lineage to link metrics to data sources so report users could understand the source of all results and create awareness for future changes as needed

Case Study: Geisinger Health System's Metric Data Lineage

Summary: Base data for KPIs can be sourced from multiple EMRs. Developers and users need to understand differences in how base data is used from each EMR and how their business logic varies.

- Leveraged the health system's investment in Collibra to establish a method for documenting and reporting data lineage for developers and users.
- Inventoried and defined data lineage for all KPIs in the health system.
- Documented the process and trained staff in said process.