



CCI
CENTER FOR CARE
INNOVATIONS

Data Governance Handbook

IMPLEMENTING DATA MANAGEMENT PRACTICES IN HEALTH CENTERS

DATA GOVERNANCE HANDBOOK TEAM

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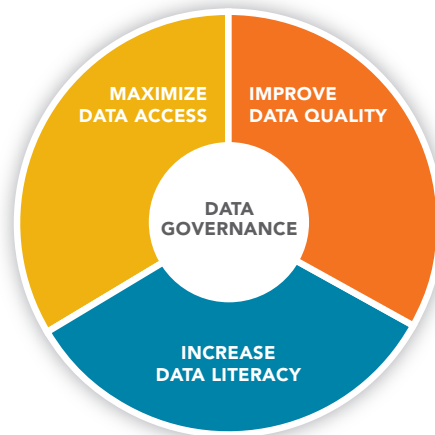
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Why Does Data Governance Matter?

Many years ago – even before electronic health records permeated the exam rooms of health centers – we first heard the saying “you can’t make good decisions with bad data.” Unfortunately, good data seems to be hard to come by even as our information systems grow more sophisticated every day. Moore’s Law for data tells us that the data available to us doubles every 18 months. Without a way to manage it all, we’ll drown in it.¹

And that’s what data governance is all about: managing data. Like the techniques, policies, and procedures used to leverage any other valuable asset of your health center – such as people, capital, or facilities – right-sized data governance helps you to provide accurate, timely, trusted and complete information to executives and front line staff alike. Taking that idea further, Health Catalyst describes the “Triple Aim of Data Governance” that nicely sums up what data governance should do:



In the video segment **Data Governance for High Functioning Health Centers**, Dale Sanders notes that data governance is nothing new; other industries have embraced these ideas and procedures long ago. It’s new in health care because we’re just becoming digital and are now producing electronic data – lots and lots of data! Add to that the rapid growth and uncertain operating environment health centers find themselves in and it’s easy to understand how overwhelming data governance can seem. Like most vexing challenges, the flip side of the coin is the opportunity to provide high value at relatively low cost or effort. See if you can recognize your health center in the scenarios presented in the sidebar.

SCENARIO 1. A team of “super users” at a health center was responsible for building EHR templates and setting system parameters. When one of the care teams asked the EHR team to create more user friendly names for the cancer screening labs, they readily complied. Unfortunately, the EHR team was unaware of the need to map results coming in from an external laboratory to the lab results field in the EHR by using the same LOINC codes. The health center began seeing a dramatic decrease in cervical cancer screening rates. When investigating, the data analyst found all labs being pulled onto the reports, but had no idea that results had stopped interfacing to the EHR. Better education of the EHR team and stricter controls on critical system changes – both a function of data governance – would have prevented this.

SCENARIO 2. A clinic manager added a new visit type to the appointment scheduling system to help providers understand the reason for the patients’ visit. Within a month, visit volume reports started to show a dramatic decline in productivity. The Data Services team was asked to investigate the cause. It was found that the productivity reports were programmed to run off a list of visit-types from a master file. The new visit type had not been added to this file. Good data governance procedures and communication would have prevented this situation by ensuring that the interconnectedness of data elements and the consequences of making changes are understood by all.

1. Point B issue brief *How to Turn Your Data Governance Project into a Long-Term Success*, 2015

*Data governance is a journey.
Start small, produce value and
grow the data governance
function as your organization
and information needs grow.*

Using the Data Governance Handbook

Whether you identify with one or many of the stories shared throughout, this handbook will help you begin to treat your data as organizational currency. The *Data Governance Handbook* and its companion, *Building a Data Driven Culture* (datadrivenculture.org) video learning series provide practical tools and guidance for implementing effective data governance.

Outlined are critical building blocks for an effective data governance program that are organized into three phases:

- **Laying the Foundation.** Focuses on identifying the problems you are trying to solve, what you would like to achieve, and establishing leadership support.
- **Assembling the Team.** In addition to leadership support, you will need to gather together other stakeholders and resources.
- **Putting Governance in Motion.** Having completed the work of the first two phases, you will be ready to execute your data governance plan. This phase provides guidance on training and communication, as well as policy and procedure development.

In addition to the building blocks and tools, we've also directed you to specific videos in the learning center that give more context and depth to the topics covered. Look for these featured sidebars throughout the handbook.

- **TEMPLATES, EXAMPLES AND RESOURCES**



- **KNOWLEDGE CENTER VIDEOS**



As you review the data governance building blocks, don't be surprised to learn that you already have some pieces of data governance in place. Use this handbook to acknowledge and celebrate what you are already doing and identify the work that remains. The tools, templates, and principles described in each building block will help you put the right amount of structure and process in place without becoming burdensome to producers or consumers of data. The tools and samples are meant to help communicate roles, establish accountability, highlight interdependence, and promote efficiency. Remember, data governance is a journey. Start small, produce value and grow the data governance function as your organization and information needs grow. Above all, let us know what works for you and what tools you have to share so this handbook can robustly support all health centers.

Laying the Foundation

Purpose and Goals

Data governance is like any other project or process, it needs to have a purpose – a reason to exist; in other words, a problem to solve. The problems that need to be addressed by data governance are often surfaced by those closest to the problems, such as a Data Analyst or Quality Improvement Manager or an end user of the data, and a typical starting place is a desire to solve data quality problems. Other times, the need for data governance evolves from an existing committee or project, such as an EHR implementation team or an executive team meeting where organizational priorities are set. Regardless of how the need for governance surfaces, the purpose should always include a clear value proposition and keep in mind the “Triple Aim of Data Governance:” improving data quality, increasing data literacy and maximizing access to data. This will keep the effort focused on value and not governance for governance sake. Successful governance starts small – don’t try to fix the data in all departments and systems at once. To get started, define how governance supports the organization’s mission with a compelling initial purpose and SMART (Specific, Measurable, Attainable, Results-oriented, Time-bound) goals.

Leadership Support and Executive Sponsorship

Strong leadership support and engaged executive sponsors are critical success factors for governance even if the need for governance often arises from other levels in the organization. Leaders are in a unique position to communicate the degree to which the organization views analytics as a strategic imperative and supports a structured approach to managing data resources. They serve as role models for how to take a data-driven approach to decision making, support the adoption of data governance processes, and influence data priorities to meet organizational goals. Leaders establish or endorse the Data Governance Committee that typically includes an executive sponsor, other departmental leaders, data stewards and data analysts. Without leadership support and leaders who model data driven behavior, governance efforts are likely to stall.

Data Strategy

A data strategy is a documented plan that defines resource allocation, activities, and timeframes for addressing data acquisition, completeness, accuracy, timeliness and use. Documenting key components of your data strategy – which include things like data sources, data quality, data “ownership”, data privacy and security, data timeliness, level of detail needed, type of analyses needed, data storage and retention – can ensure that data deficiencies are remedied and that the organization has the right information to achieve its goals. The plan should be widely understood and considered a “living” document that responds to organizational priorities.

Leaders need to model data-driven

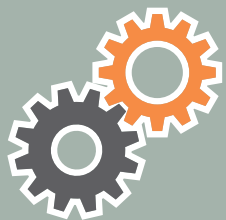
behavior. The Data Services team is almost always inundated with information requests and without guidance from leaders about organizational priorities, the data team could be focusing efforts on the wrong areas. At one health center, a data analyst was tasked with ensuring providers’ eligibility for the Meaningful Use (MU) program. In addition to conducting training on the MU measures, he created a monthly spreadsheet to show if providers were in danger of missing the MU threshold. As providers were missing the goal, he continued to reach out to the CMO. At the end of the year, several providers didn’t meet the eligibility goals, including the CMO. While data analysts can provide data and recommendations, it takes the organization’s leaders to act upon that data for improvement and model data-driven behavior.



DATA STRATEGY TIPS

To keep things manageable, try developing a data strategy for an organizational priority that has the attention of your senior leaders and has “boundaries.” This could include:

- A key quality initiative
- A priority objective from your organization’s strategic plan
- A pay-for-performance program
- An important grant



TEMPLATES FOR LAYING THE FOUNDATION

- ▶ Data Strategy Worksheet
- ▶ Analytics Capability Assessment

Tools for Laying the Foundation

Tips for Getting Started

Keep these tips in mind as you start to put data governance practices into place:

- ☐ Choose a specific measure set to start with and build trust in the data by examining the data input and output. Starting small and keeping your efforts within one department will help to keep your work manageable, allow you to fine tune processes, and help your team to show value right away.
- ☐ Make sure you have an executive sponsor, champion or leadership support from a clinical or operational area. A big mistake health centers make is to assume that data governance and management is the responsibility of IT.
- ☐ Use the opportunity to get one or two end users really excited about data they can trust; these staff can become data stewards in the future.
- ☐ Although you're starting small and focused, avoid referring to data governance or management as a "project". Instead, line up your next data management effort early on so that everyone knows the work will continue.
- ☐ Build policies and procedures *as needed*. Present these as communication tools rather than rules. Some staff may mistake governance for restricted access; in fact, it's just the opposite.

Analytics Capability Assessment

To measure your baseline capabilities and measure your progress for healthcare analytics, consider using the Analytics Capability Assessment (ACA) and administering it on an annual basis. Developed specifically for health centers and mindful of their operating environment and resource constraints, the assessment can help focus capacity building efforts and influence the work of the data governance committee, especially as it relates to building data literacy throughout the organization.

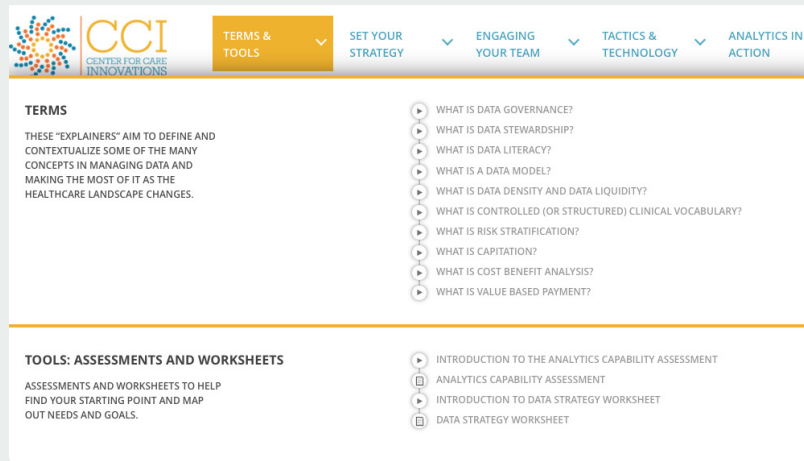
Analytics Capability Assessment Factor Example

(See sidebar to download complete template.)

1. PEOPLE												
Capability Levels	Reactive			Responsive			Proactive			Predictive		
Senior Leader Sponsorship: Senior Leader Sponsorship assesses the degree to which leaders in the organization sponsor healthcare analytics efforts, advocate for a structured approach to analytics and allocate resources to it.												
1A. To what extent are senior leaders involved with and supportive of data efforts, issues and analytics in your organization?	Managers typically firefight data issues as they arise; senior leaders are rarely involved in the detail of such issues.			Managers/Directors are responsible for departmental data issues and resolving problems as they relate to operations.			Senior leaders have responsibility for ensuring that data is available for driving decisions and allocate resources to ensure its quality, availability and timeliness.			Senior leaders sponsor efforts throughout the organization to ensure healthy data and analytics efforts, and ensure that departmental efforts are balanced and aligned to maximize the use of data as a strategic asset.		
SCORE	0	1	2	3	4	5	6	7	8	9	10	11
Data Stewardship: The role of the "data steward" may be formally defined or informally recognized and is typically the "go to" person within a department or site for all the queries/issues and usability of the data. Data stewards ensure the data is complete, accurate, and timely and that it is useful to the department or site in measuring performance and making improvement.												

Suggested Approach for Using the ACA

- Data Governance Committee (DGC) members should score the ACA individually, scoring from the functional perspective of all data stakeholders they are representing (e.g., medical, behavioral health, operations, finance, IT, QI, HR). Prior to scoring the ACA, view the video “Introduction to the Analytics Capability Assessment” at the datadrivenculture.org site under the Terms & Tools menu. This will provide a brief overview of the ACA tool.



- Assign a data analyst or other staff to consolidate results of the ACAs from all DGC members, averaging scores from each member for each item. A spreadsheet is ideal for consolidating results.
- Schedule a time within a Data Governance Committee meeting (or a separate time) to review the aggregated results of the ACA scores from each member. Allow 1-2 hours so the DGC can gain full understanding of the results and have thoughtful discussion about different perspectives in scoring and to draw conclusions that will inform DGC efforts.

Suggested agenda for review of ACA results:

- **Review the aggregated scores and discuss.** Recognize factors where scores were high and discuss how to best leverage these strengths. Discuss factors where scores were low and where there was a lot of variability across members.
- **Gain consensus on a final score for each factor.** Provide a brief comment for each that gives a qualitative flavor for why the factor was scored at the level it was.
- **Discuss which factors hold the greatest opportunity** for impact and how to best use the results to guide analytic capability development efforts by the DGC.



KNOWLEDGE CENTER VIDEOS FOR LAYING THE FOUNDATION

- ▶ Guide to Using the Data Strategy Worksheet
- ▶ Introduction to the Analytics Capability Assessment
- ▶ What Is Data Governance
- ▶ How to Get Started with Data Governance
- ▶ Right-Sizing Data Governance
- ▶ Barriers to Effective Data Governance

Data Strategy Worksheet

The worksheet shown here contains a set of questions that can be used to build and review your data strategy to align with your organization's key performance metrics or a family of measures for a specific improvement effort. Not all questions need to be answered for each data point or measure; use this as a guide to highlight potential data integrity and data management issues.

Diabetes Measure Set Example (See sidebar on page 4 to download a blank worksheet template.)

Component	Typical Questions
Data Requirements	<ul style="list-style-type: none"> What core data elements do you need to start with? Which ones will you need in the future? What are the sources of that data? <div> <div>Current State: <ul style="list-style-type: none"> Start with diabetic patient diagnosis, A1c value. Will need blood pressure reading in future. Sources of data are EHR and PHM systems. </div> <div>Plan of Action: <ul style="list-style-type: none"> Identify correct number of DM pts using EHR, ensure match to PHM. If no match, find cause (e.g., data entry, coding, workflow, mapping) and address (e.g., training, fix EHR fields & workflow, mapping) </div> </div>
Data Governance	<ul style="list-style-type: none"> Who owns the data element(s)? Who defines meanings and valid values? What is the division of responsibilities between admin, clinical, and IT? <div> <div>Current State: <ul style="list-style-type: none"> Providers own the diagnosis field, lab owns A1c, MAs own BP. Medical leadership, providers define meanings and valid values. Medical leadership ensures standard protocol for diagnoses. </div> <div>Plan of Action: <ul style="list-style-type: none"> Shadow in clinic to observe and document actual workflow, compare it to ideal workflow and adjust as necessary. Provide training. Review current training materials and update as needed. </div> </div>
Data Quality	<ul style="list-style-type: none"> What validity issues are there with the required data? Availability, accuracy, consistency, timeliness? What data fixes are required? <div> <div>Current State: <ul style="list-style-type: none"> Diabetes diagnoses not being documented consistently; # diabetic patients in PHM system does not match EHR. BP readings are out of range. Improve data input procedures. </div> <div>Plan of Action: <ul style="list-style-type: none"> Meet with EHR applications team for line by line mapping between EHR and PHM system. Establish standard data entry workflows. Develop reports to flag data quality issues </div> </div>
Granularity	<ul style="list-style-type: none"> What level of detail do you need? Does the data need to be at different levels of detail for different uses? <div> <div>Current State: <ul style="list-style-type: none"> Need clinic total, site, care team, individual provider level detail. Yes, need senior leaders to monitor at an organization level. Need managers and care teams to focus on local issues to intervene. </div> <div>Plan of Action: <ul style="list-style-type: none"> Develop data quality and measure reports at the provider, care team, site and clinic total levels. </div> </div>
Integration	<ul style="list-style-type: none"> How do you get the data? Does it need to be reformatted for consistency? Does it need to feed back to other systems? <div> <div>Current State: <ul style="list-style-type: none"> All data comes from EHR and PHM reports. PHM system will map some fields to identify appropriate diabetic patients. It can also help flag outlier data. </div> <div>Plan of Action: <ul style="list-style-type: none"> Review and update mapping in PHM system to align with EHR. Update workflows in EHR to show past diabetic dx. Create other prompts to improve dx coding and upper/lower limit checks on BP. </div> </div>

The DSW can be used to build and review your data strategy for a single measure or family of measures. Assess each component as relevant to the measure or measure set you are focusing on.

Component	Typical Questions
Stage and Store	<ul style="list-style-type: none"> What is your data architecture - specifically where is the data held? Will you have a central repository or data warehouse? <div> <div>Current State: <ul style="list-style-type: none"> Data collected in EHR, flows to PHM system, stored on SQL server. Yes, data is aggregated from multiple sources (EHR/PHM). </div> <div>Plan of Action: <ul style="list-style-type: none"> Update SQL server as needed to align with updates to EHR and PHM system. </div> </div>
Analysis	<ul style="list-style-type: none"> What information is required to perform the analysis? What skills are required to understand the data? What actions will result from the analysis? What are the criteria for those actions? <div> <div>Current State: <ul style="list-style-type: none"> Need data from EHR and PHM for analysis. Need skills in report writing in EHR and PHM systems. Analysis will help identify opportunities by site and provider. </div> <div>Plan of Action: <ul style="list-style-type: none"> Data analyst will generate reports from EHR and PHM systems with help from EHR application analyst. Data analyst will prepare a visual analysis of the data. </div> </div>
Privacy	<ul style="list-style-type: none"> Are there any sensitive data elements? What are the HIPAA compliance requirements? Will this data be shared with third-parties and what risks does that create? <div> <div>Current State: <ul style="list-style-type: none"> Yes, PHI and provider names are sensitive data elements. Need to ensure PHI protected and have Data Use Agreements for sharing with other organizations. </div> <div>Plan of Action: <ul style="list-style-type: none"> When cleaning up data quality, need to be careful about PHI. For measure reporting, be sensitive about provider labels. No sharing of reports outside org without data use agreements.. </div> </div>
Reporting	<ul style="list-style-type: none"> Do you have a need to report your data to others? Do you need to alter the data to properly graph/report it? Who needs access and how will they get it? <div> <div>Current State: <ul style="list-style-type: none"> Yes, internal reporting to sites and providers; external reporting to UDS annually, and health plans quarterly. For internal reports, beginning to use Tableau at all levels. </div> <div>Plan of Action: <ul style="list-style-type: none"> Need to have data quality reports and measure outcome reports available in Tableau for all user levels (site, care team, provider). </div> </div>
Access	<ul style="list-style-type: none"> What are the requirements to make the right data available to the right people at the right time? <div> <div>Current State: <ul style="list-style-type: none"> Data quality and measure reporting is ideally accessible at time periods the user can specify (e.g., daily, weekly, monthly, annual) and should provide trends on any data or measure reported. </div> <div>Plan of Action: <ul style="list-style-type: none"> Ensure Tableau report (above) allows user to select time period. Ensure appropriate access privileges for all staff. </div> </div>
Versioning and Retention	<ul style="list-style-type: none"> If data is regularly updated, what data changes do you need to capture? How do you track what version you are using? How long do you keep data? When do you archive it? <div> <div>Current State: <ul style="list-style-type: none"> Any changes made in EHR or PHM system are captured in a log. All reports have a version in their title. </div> <div>Plan of Action: <ul style="list-style-type: none"> Assess current versioning documentation procedures to ensure compliance. Update as needed. </div> </div>

Assembling the Team

Data Governance Committee

A Data Governance Committee should be a multi-disciplinary group formed to increase data quality, improve data literacy and maximize access to data to ensure that the organization can optimize the value of the data they collect. This team should have representation from all staff who use the organization's information systems. This committee develops data-related policies and procedures that help ensure data can be turned into actionable information for end users while maintaining data security and integrity. These policies and procedures provide guidance to individuals who interact with data across the organization, performing specific data-related tasks such as data validation, workflow mapping, reporting, specification, integration and analysis. Often, data governance functions are carried out in other standing committees rather than forming a new group. However an organization chooses to carry out this important function, the group needs to manage communication about data-related policies, standards and decisions to all stakeholders, and coordinate the activities of data stewards who are dispersed throughout the health center. A Data Governance Charter helps to define the committee's activities and serve as a communication tool making others aware of the role and activities of the committee.

Data Stewards

Data stewardship refers to the processes and attention given to ensure that usable data and information is available throughout the organization. Data stewards are the individuals that make this happen. They are responsible for the accuracy, reliability and completeness of data, usually within a specific department or functional area (medical, dental, women's health, billing, etc.). They also work with the data services department and IT staff to prioritize data and information requests. Data stewardship is a responsibility given to an existing role, typically a department supervisor or director. Data stewards understand and communicate key data and metric definitions and guidelines for how data are analyzed and presented. Additionally, they train staff on how and where data should be entered in the EHR or other source systems and how to interpret data and use it for decision-making. Data stewards work together to make sure changes to system parameters in one department do not adversely affect another; they play a central role in carrying out data governance processes.

Health Centers need to remember that data quality takes time and data will never be "perfect;" however, if you don't start sharing the data, then you can't make strides to improve the data. It's the responsibility of the data stewards to proactively explain the current limitations of the data, make sure everyone understands the specifications of important metrics (numerator and denominator) and make recommendations to improve the accuracy, completeness and timeliness of the data.



DATA GOVERNANCE TIPS

Data Governance Committees rarely start out with that title – especially in small to medium sized health centers. Instead, we've seen data management activities emanate from the following existing structures:

- An EHR implementation committee often morphs into a data governance committee by dropping some IT staff and adding clinical and business users.
- A QI team often takes on many governance functions as they work on high priority initiatives.
- Some organizations carve out time during monthly executive team meetings to set priorities and rules for data management.



CASE STUDIES FOR DATA STEWARDSHIP

“Why can’t I get baseline data for our P-4-P program?” A health center was incentivized by their local Managed Care plan to improve colorectal cancer screening rates. The Medical Director could see the data in the EHR and requested baseline data on screening rates. The Data Services Director, however, said that she couldn’t provide the data. When pressed, she explained that the data in the EHR were sent from the local GI office. Since the results were free text and not structured data, they were not reportable. This is where the role of data stewards comes into play in educating end users and managing change. They would identify the workflows that need to be changed in order to structure data in a reportable format. In this case, providers would need to change the way they order the colonoscopies, and someone would need to be responsible for “abstracting” the results into a reportable field.

“I know our smoking cessation counseling rates should be higher than what the reports show.”

The Prenatal Program staff found that using the structured smoking cessation template was challenging and time-consuming to access from their usual templates. They decided to begin typing the information in their progress notes instead of using the template. However, the Meaningful Use reports were set-up to look for the data in the template. By free-typing the data, the clinic was losing “credit” for smoking cessation counseling on their quality reports. Furthermore, they were unable to analyze the effect of cessation counseling on quit rates. Data stewards – a central role in carrying out data governance processes – can help end users link their data capture efforts to the reports that show quality and effectiveness of care so that this disconnect is avoided.

“This data just looks wrong.” Even when data entry choices are limited by a pick list or drop down menu, there’s still a risk of misinterpretation that impacts data accuracy. When the manager of the Emergency Department (ED) of a public hospital system noticed an important operational metric, Left Without Being Seen (LWBS), seemed to contradict his experience he investigated further. He learned some staff checked the LWBS box only if the patient registered but never made it to the exam bay. Others checked it only if there was no record of discharge (meaning the patient might have received treatment but didn’t check out properly). Still others interpreted LWBS subjectively based on their definition of “treatment.” A data steward’s responsibility is to make sure all users understand the definition of key metrics so they enter and interpret data accurately. In this case, the ED manager assumed the role of data steward and educated all staff on the correct interpretation of LWBS.

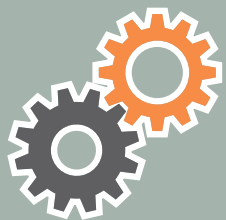
Data Services

As the importance of healthcare analytics grows, many health centers find that it's important to carve out a Data Services department or function, distinct from Information Technology (IT). A Data Services function conducts the analyses that enable data-driven decision making and advanced uses of data in an organization. They do this by finding patterns in the data and interpreting those patterns to create actionable information. Staff in the Data Services department may have an analytics or statistics background or they may have a clinical, program, or business background with a fundamental understanding of the data that are captured and how they can be leveraged best to improve patient care and make operations more efficient.

Data Services supports the Data Governance Committee and other stakeholders in building data literacy, ensuring data quality and increasing data access. Depending on the size of the organization and data needs, a Data Services function may range from one to multiple analysts. Data Services is sometimes called "Business Intelligence" (BI) in large organizations, acknowledging the group's role in advancing data-driven decision making and using data as a strategic asset. Staffing may grow over time as the data-driven culture takes root and the organization recognizes the return on investment (ROI) for analyzing and using data more effectively.



Data Services staff work with data stewards or designated individuals in the department to prioritize report requests. It's always a negotiation between available hours and data needs, but priority decisions rest with the requester and criteria for priority-setting need to be transparent.



TEMPLATES FOR ASSEMBLING THE TEAM

- ▶ Data Governance Charter
- ▶ Data Governance Committee Agenda

Tools for Assembling the Team

Data Governance Charter

A Data Governance Charter can help the committee or individuals tasked with managing this asset to define their scope (both initial scope and as it grows), activities and goals. It can also help to inform others in the organization about the importance of good data governance and how they benefit from it. We've provided both a template for what the components of a charter are and an example. The example is a robust charter for the data governance of a large healthcare organization. Take the parts that seem useful as you introduce the idea of data governance in your organization and add more structure only as necessary.

Data Governance Charter		TEMPLATE
Purpose	A brief statement about why the group exists, what problems it will address, and its overall objective	
Scope	A statement about what the committee is expected to do and accomplish, along with identification of boundaries	
Responsibilities	A summary of the key responsibilities of the committee	
Goals	A list of SMART goals that are more strategic in nature and, once achieved, will address / resolve the problems identified in the purpose statement	
Membership	<p>A list of who will participate on the committee and their role (committee chair, voting member, ad-hoc member, etc.). You may also include subgroups or subcommittees that will assist in achieving the goals of the committee (data services subgroup, BI department, etc.)</p> <p>As necessary, a visual representation or statement about the relationship of the committee with respect to other decision-making bodies within the organization.</p>	
OPTIONAL COMPONENTS		
Attendance and Participation	Describe the expectations for attendance and participation	
Authority	Describe the scope of the committee’s authority. Consider including what they do and do not have authority over.	
Frequency and Nature of Meetings	Describe the meeting frequency and nature of the meetings (in-person, video conference, conference call, etc.)	
Operations and Escalation	Describe how the meeting management function will be addressed (agenda creation, circulation of pre-read material, minutes, etc. and timeframes associated with all those items) and how the process for issue escalation.	
Guiding the Data Governance Committee	Identify the committee Chairperson and their responsibilities in leading the committee.	

Data Governance Charter	EXAMPLE
PURPOSE	Data Governance is a key driver of an organization's approach to data management. The Data Governance Committee (DGC) will oversee the people, processes and information technology required to create consistent and proper handling of data and understanding of information across the organization. Information is treated as an organization asset and is readily available to support evidence-based decision-making and informed action to improve clinical, operational, financial and patient experience outcomes.
SCOPE	The DGC will undertake a leadership role in the creation, implementation and oversight of the organization's information and data management goals, standards, practices and processes aligned with the goals of the organization. The DGC will propose specific recommendations on how to improve data quality, ensure a balance between data access and data security, prioritize data acquisition efforts and raise the level of data literacy across the health center.
RESPONSIBILITIES	<p>As a strategic, cross-functional decision-making entity, the DGC will be responsible for the following:</p> <ul style="list-style-type: none"> • Vision and Direction: Set the vision and direction for the future of the organization as it pertains to Data Governance matters. Promote Data Governance at a senior management and management level. • Strategic Alignment: Champion and align the Data Governance Strategy with organization strategy. • Oversight and Decision-Making: Act as a centralized hub, make decisions and provide oversight in relation to key Data Governance components, such as policies and processes, data protection, data privacy, classification codes (ICD, CPT, NDC, SNOMED, etc.), retention, information usage, data stewardship, and organization-wide change management. • Implementation: Be accountable for the implementation of the Data Strategy and its initiatives. • Data-Driven Culture: Instill and promote an organizational climate that embraces use of data in achieving organization goals and making positive change through continuous improvement in all areas.
GOALS	<p>The high-level goals of the DGC are to improve data quality, increase data literacy and maximize access to data in achieving organization goals. The DGC will develop a Data Strategy (documented plan or systematic approach) that identifies who will be tasked with data-related projects, activities and timeframes to acquire and use high quality data (accurate, timely and complete) throughout the organization. The DGC will advance analytics capability in the organization in three key areas: people, process, and technology.</p> <div> <div> People <ul style="list-style-type: none"> • Coach the organization's senior leaders on the value and implications of good data and information assets ("data is the new currency") and the importance of an organization climate that embraces use of data in achieving organization goals and making positive change through continuous improvement in all areas. • Coach senior leaders on the importance of sponsoring analytics efforts, advocating for a structured approach to analytics, and allocating resources for analytics efforts. • Define, agree and communicate the roles and responsibilities of data stewards and Clinical and Business Analysts. Define responsibilities at each level and identify appropriate staff in each area to incorporate into Data Governance committee and team structures. • Identify and establish cross-functional teams to drive the organization's Data Governance practices. • Ensure that relevant stakeholders are kept fully informed of the changes introduced by the Data Governance framework and encourage them to champion the changes in their areas of influence. • Drive organizational and behavioral change as it relates to the use of data </div> <div> Process <ul style="list-style-type: none"> • Establish and execute a Data Strategy and set priorities for associated data governance activities. • Develop a Cost-Benefit Analysis to identify and track realization of benefit opportunities arising from the provision and use of better quality information. • Provide data stakeholders with guidance, standards and consultation to enable stakeholders to develop common and accepted data definitions for all shared data. • Establish data quality policies, processes and quality measures. • Work with Clinical and Business Analysts, data stewards and technical staff to implement data cleansing plans and participate in the root cause analyses of data quality issues. </div> <div> Technology <ul style="list-style-type: none"> • Seek out program, process and technological improvements/innovations that will: <ul style="list-style-type: none"> • Foster improved data quality and reporting • Balance access to information with the need for security of data • Improve the reliability, accuracy, and confidence in information • Enable visualization of data that help frontline staff to interpret and act on results </div> </div>

**DATA
GOVERNANCE
COMMITTEE
MEMBERSHIP**

Representation on the DGC needs to include the administrative, clinical, operations, and financial sides of the organization, covering key data categories such as EHR data, patient experience data, and financial data as well as incorporate key organizational enabling functions like Information Technology (IT), Quality Improvement (QI), and Human Resources (HR).

The proposed membership of the DGC is as follows:

- CEO
- Medical Services Leader
- Information Technology Leader
- Human Resources Leader
- Operations Leader
- Behavior Health Services Leader
- Quality Improvement Leader

**ATTENDANCE
AND
PARTICIPATION**

To aid the successful implementation of the DGC, the following outlines expectations for attendance and active participation:

- **New Membership Selection:** New DGC members will be selected by the DGC itself, with the exception of the Chair who is appointed by the CEO.
- **Ad Hoc Attendees:** Ad hoc attendees may be requested in order to provide specialist input as required.
- **Quorum:** Quorum for the DGC is considered when, at a minimum, 50% of the DGC members PLUS the Chair is present. The Chair will ensure that the list of attendees is robustly maintained.

AUTHORITY

To aid the successful implementation of DGC, the following outlines the DGC's authority:

- The DGC derives its authority from the CEO with escalation and reporting on Data Governance matters referred to the appropriate working groups (e.g. data stewards, Cross-functional Teams).
- Authority lies with the DGC itself, as a committee, and not with any specific individual. The Chair's role is to facilitate and manage the conversation of the DGC, to enable decision making and to aid issue resolution.

**FREQUENCY
AND NATURE
OF MEETINGS**

To aid the successful implementation of the DGC, the following outline the frequency that the DGC should meet:

- **Monthly Meetings:** The DGC will meet initially on a monthly basis for 1 hour and on an ad-hoc basis, as required.
- **In Person and Teleconference:** Regularly scheduled meetings will be conducted in-person and by teleconference to ensure that all stakeholders have an opportunity to participate.
- **Periodic Review:** Periodically, the DGC will review the frequency and duration of meetings in-line with organization's needs.

**GUIDING
THE DATA
GOVERNANCE
COMMITTEE**

The DGC will have an assigned Chair to guide the decisions that need to be considered to solve the data issues that the organization brings to the DGC. The DGC Chair is the key facilitator and moderator to coordinate with the different entities that are required to provide input to the DGC so they are able to make a decision effectively and efficiently to support the organization to become a data-driven organization.

Chair's Role: The Chair will provide oversight and guidance to the DGC.

Chair's responsibilities:

- Chairing DGC meetings
- Delegating responsibility for Action Items
- Ensuring Action Items are addressed by their assigned owners
- Assisting decision making as necessary by providing oversight and issue resolution

Appointing the Chair: The CEO will appoint the DGC Chair.

Data Governance Committee Agenda			EXAMPLE
TOPIC	DISCUSSION POINTS	ACTIONS	
8:00	Welcome	<ul style="list-style-type: none"> Agenda Overview Review June Meeting Minutes 	
8:05	Data Strategy / DIRT	<ul style="list-style-type: none"> Review status of Data Strategy / Data and Information Request Log Discuss priority efforts <ul style="list-style-type: none"> P4P Quality Initiatives 	
8:15	Data Quality	<ul style="list-style-type: none"> Update on data quality efforts <ul style="list-style-type: none"> LOINC Code Mapping for Cervical Cancer Screening New data quality needs <ul style="list-style-type: none"> Depression Screening Smart Form <ul style="list-style-type: none"> Workflow updates Results Mapping Properly 	
8:30	Reports	<ul style="list-style-type: none"> Update on report development <ul style="list-style-type: none"> Provider Dashboards New report needs <ul style="list-style-type: none"> Health Plan membership lists 	
8:40	Data Tools	<ul style="list-style-type: none"> Update on data tool optimization and/or needs <ul style="list-style-type: none"> Provider Dashboard (Tableau?) 	
8:50	Training Needs	<ul style="list-style-type: none"> Update on training efforts <ul style="list-style-type: none"> Manual Reconciliation of Lab Data New training needs <ul style="list-style-type: none"> Using Smart Forms for Depression Screening 	
9:00	Adjourn		

Committee Role Call				EXAMPLE
MEMBERS	DEPT	PRESENT	ABSENT	
Heidi Nesbitt, Chair	CEO			
Leon Francis, MD	Medical			
Kathy Rodriguez, RN	Operations			
Nancy PH Qiu	Behavioral Health Data Steward			
Angela Pedsa	QI			
Edward Router	IT			
Fred Recruit	HR			

Health centers need to remember that data will never be “perfect;” however, sharing data with end users will engage them as partners in increasing data quality.





Data Governance Committee Topic Frequency		EXAMPLE
	PERIOD	PURPOSE
Data Strategy Review	Quarterly status updates	Monitor execution of Data Strategy
	Annual review	Ensure alignment to organization strategy
Cost-Benefit Analysis	Annually	Track benefit realization opportunities arising from the improved provision and use of data and information
Analytics Capability Assessment Review	Annually	Monitor organization progress in analytic capability development
Data and Information Requests Review	Monthly	Monitor progress of requests
Data Quality	Monthly	Monitor progress of data quality efforts
Training	Monthly	Monitor progress of training needs
DGC Membership	Annually (or as vacancies arise)	

Data Analysts

Data Analysts are rapidly becoming an essential part of the health center ecosystem. Use the following job description as a guide for hiring, but recognize that many individuals will grow into the position with support and training along the way. Sometimes data analysts will report to the Chief Information Officer and other times the Chief Operating Officer. In either case, their partnership with departmental data stewards is essential.

Although the Data Governance Committee starts small and adds membership as needed, the composition should always be multi-disciplinary.

Data Analyst Job Description

EXAMPLE

POSITION TITLE Data Analyst

REPORTS TO Chief Operations Officer

Job Summary

Helping Hands Health Center is an innovative leader in the use of data to improve clinic financial stability and patient outcomes and experience. The Data Analyst supports the business intelligence by running data on clinical, financial, and some operational aspects of the health center and producing reports and presentations on a daily, weekly, monthly, and quarterly basis. The position assists in supporting the relationship of data optimization to the current strategic plan of the organization, based on institutional mission, goals, opportunities, and priorities.

The Data Analyst's primary accountabilities include informing the governance purpose and goals, ensuring data quality, reporting on performance measures (clinical, operational, financial, patient experience), supporting data mining and advanced statistical analyses, providing clear and compelling visual representations of the data, and helping interpret data for decision making.

Duties and Responsibilities

- Works with the Medical and Operations staff as directed to develop and run reports
- Creates reports using various tools and SQL programming to extract data from existing databases in support of strategic goals and Performance Improvement and monitoring.
- Provides data and reporting support and assistance across all facilities and departments. Works with faculty and residents as well as line staff and access providers as time allows.
- Maintains work plan of reports to run daily, weekly, monthly, quarterly, or yearly (e.g., dashboards, UDS, OSHPD)
- Documents methodology to allow for better understanding and modification of reports.
- Supports those doing grant reporting by developing quality financial and clinical data reports.
- Collaborates in network efforts on data validity and integrity.
- Assists in implementation of new reporting tools as needed.
- Collaborates with EHR administrator to identify shared fields or updates.
- Participates in teams focused on optimization and data quality. Duties may include audits of data or systems to look for defects and incomplete data and works with staff to develop path for remediation. Audits validity of data in the system through running other reports, checking against trends, and other specified mechanisms. Works with site managers to maximize quality of data collection as needed.
- Participates in the staff meetings to improve strategic use of data as requested.
- Identifies and researches viable methods of collecting data to support performance improvement, grant development, and fiscal reporting that align with identified needs. Produces or trains staff in developing these reports (informatics).
- Participates in health center-wide projects and research.
- Supervises assigned staff and/or volunteer workers as needed.
- Attends and participates in health center staff meetings and in-service trainings as directed.
- Participates in ongoing training.
- Other duties as assigned.

MINIMUM QUALIFICATIONS:

Education • Bachelor's Degree in math, science, medical or public health-related field

Experience • 2-3 years of experience using an Electronic Health/Medical Record system preferred.
• Experience in public health or hospital data analysis strongly preferred.
• Familiarity with standard concepts, practices and procedures within health care, particularly primary care and community health centers, strongly preferred.

Knowledge and Skills

- Experience with Crystal Reports, MS Access, or other relational database and presentation tools.
- Demonstrates knowledge of compliance issues within the community clinic environment
- Demonstrates a willingness to report any incident that is unusual or incompatible with accepted clinic procedures.
- Maintains confidentiality of patients at all times.
- Sensitivity to and willingness to interact with persons of various social, cultural, economic and educational backgrounds.
- Proficiency with Microsoft Office applications including Outlook, Word, Excel and PowerPoint
- Strong organizational skills with ability to prioritize projects, work relatively independently, manage multiple tasks, and meet deadlines.
- Strong written and verbal communication skills.
- Strong interpersonal skills. Ability to work with people with a variety of background and educational levels.
- Ability to work independently and as part of a team.
- Good judgment, problem solving and decision-making skills.



KNOWLEDGE CENTER VIDEOS FOR ASSEMBLING THE TEAM

- ▶ What is Data Stewardship?
- ▶ Roles in a Data Driven Organization
- ▶ Data Services – The Baldrige Way
- ▶ Steps for Building a Data Services Department
- ▶ Staffing Your Data Services Department
- ▶ The Customer Voice in Data Services

Data Steward Responsibilities

What is a data steward in a healthcare organization and how is this role staffed? Data stewards are almost always drawn from existing positions in a health center. They are often directors, managers or supervisors who are content experts in their department or service area. They provide a critical role in supporting the Data Services team, by providing insight on how data capture points translate into workflows and practice. Often data stewards are informally acknowledged for this role – i.e., the “go to” person for data, metrics and reporting questions – but as an organization grows and as part of good data governance, data stewards and their role should be formalized. Some or all the following responsibilities should be added to their existing job descriptions and communicated to staff. Many of the responsibilities of data stewards are the same, regardless of where the person falls within the organization. Most importantly, however, individuals with data stewardship responsibilities need the time to perform these tasks, often 20% of their time.

Data Steward Responsibilities

EXAMPLE

- **Be accountable for integrity and quality of data in their department or service area.**
 - Data stewards are responsible for establishing requirements for data capture and assessing the quality of the data.
 - Data quality means the data is accurate, complete and timely.
- **Create data standards and business rules.**
 - Data stewards are responsible for leading, supporting or interpreting data standards. For Key Performance Indicators and high-stakes quality metrics, this involves ensuring the denominator, numerator and exclusion/inclusion criteria are well defined and communicated.
 - Work with analysts to ensure that data mapping to other systems are up to date.
- **Promote data literacy within the department or service area.**
 - Ensure the data are in a format that is readable and understandable.
 - Keep current reference documentation on the data such as when they were collected, where, how, by whom, and under what conditions.
- **Be active advocates of data management and treating data as “currency”.**
 - Endorse good data management practices, use them, and share them.
 - Train and support other data stewards within the broader service area.
- **Work with senior leaders to establish data access and security requirements.**
 - Identify staff that have access rights to change parameters or data entry templates.
 - Ensure HIPAA standards for data sharing are clear and enforced.
- **Participate in the data management / data governance team or data steward council.**
 - Represent service area/ department to ensure data are appropriately integrated across departments for a holistic view of the patient across all the systems of record.
- **Work with data services / data analysts to prioritize data and information requests and reports.**
 - Verify reports and self-service analytics templates before publishing.
 - Advise on effective visualizations and transparent reporting.

Putting Governance in Motion

Training and Communication

Even if data services starts out as a one-person department in your organization, the impact of data is felt across all departments and team members. Therefore, a strong data governance program needs to help staff understand their role in data governance and data stewardship, and grow the data literacy of the entire organization. A communication and training plan are critical components in achieving those aims. When done well, all staff members are trained to interpret the reports, charts and graphs they're provided with, and data is treated as an organizational, not departmental, asset. Data roles and responsibilities are built into new employee orientation. Over time, training and communication help build a culture where data is a central element in all decision-making. The Data Governance Committee or those who perform this function through another committee or means will need to make sure that they provide ongoing care and support of data stakeholders through effective communication. They play an important role as a "trusted broker" of information, provide transparency into the data priorities of the organization and convey the "single source of truth" for key organizational metrics.

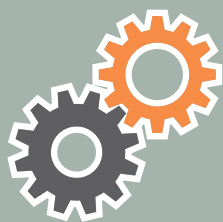
Policies and Procedures

Just the mention of policies and procedures can make data governance seem like an effort that is constraining rather than empowering. However, giving consumers and producers of data some guidelines can actually be beneficial and welcome, and help everyone to develop a common understanding of how the organization manages and "spends" this new currency: data. While the actual crafting of rules and implementing governance processes takes relatively little time, the Data Governance Committee needs to weigh the level of control versus access they wish to implement, help to translate organizational data priorities transparently and in a way everyone can understand, and then align the policies and procedures of the organization with goals/drivers/constraints of health information privacy and security, legal issues, compliance requirements, quality assurance and change control.



COMMUNICATION TIPS

Data-related decisions and protocols must be thoroughly communicated throughout the organization. Without a communication plan that accounts for all departments – even those without a data steward or representative on the Data Governance Committee (DGC) – you risk departments "going rogue." For example, one busy health center was unable to gain representation on the DGC from their pediatric department. The pediatrics staff became accustomed to making independent data decisions and workflow changes, since their processes and templates were different than adult primary care. One such change came when staff decided it was too time consuming to use the check in and check out visit status boxes. As time went by, the visit numbers began to decrease in pediatrics, since reporting was based on patients who had "checked out" from their appointments. The DGC's communication about the organization-wide importance of tracking this data had failed to reach all stakeholders and the consequences were significant, causing rework and a revenue impact.



RESOURCES AND EXAMPLE FOR PUTTING GOVERNANCE IN MOTION

- ▶ Health Insurance Portability and Accountability Act (HIPAA)
- ▶ Family Educational Rights and Privacy Act (FERPA)
- ▶ HITEQ Checklist for Analyzing Performance Measure Data

Tools for Putting Governance in Motion

Communication Roles and Responsibilities			EXAMPLE
	DATA NEEDS	DATA ISSUES	INFORMATION/ COMMUNICATION
Data Governance Committee	Aligns Data Requests with organizational priorities, as well as requests data based on department priorities. Works to align requests across departments	Helps vet reporting and data validation by providing process insight. Leads workflow discussions with their respective departments to identify potential data errors. Helps draft resolutions and supports training and compliance.	Identifies impacts on department workflows and areas of potential challenges/non-compliance. Works with staff on training and improvement.
Data Analyst	Tracks requests and gathers information about the need provide preliminary ideas for basic structure. Shares background information with the Data Governance Committee.	Identifies issues based on reporting	Drafts information on data entry and validation. Shares information on reporting detail and validity. Provides reports and data as requested in user-friendly formats.
Other Stakeholders	Uses data to influence decisions, shares information and requests with stakeholders.	Maintaining accurate data and following entry protocols.	

Data Quality Checklist

Improving data quality is perhaps the most important function of data governance. Taking a systematic approach to data validation and involving end users of the data in the process can significantly boost confidence and promote data-driven decision-making. The HITEC Center offers a great tool for data validation (see sidebar to download).

REPORTING

Data Services Departments shall follow clear guidelines for responding to and managing the reporting needs of the health center.

Report Requesting

1. All reports, even simple ones, must henceforth go through the formal report request process defined below
2. Report request forms (see appendix) to be completed and sent to the Data Services Supervisor
3. Anyone can generate a report request, but report requests must be reviewed by a manager/supervisor first and sent in by the manager/supervisor to the Data Services Supervisor
4. Any supporting documents (i.e. Grant reporting instructions, numerator and denominator descriptions) should be sent in with the Report request form
5. Report requests must be submitted a minimum of 10 business days before they are due to allow for time to schedule and Q&A session, create and test
6. Report requestors must be prepared to set aside meeting time at least 7 business days before the report is due in order to attend a report questions and answer session about the report
7. Report requestors must be prepared to set aside additional meeting time at least 5 business days before the report is due in order to attend a report validation meeting
8. Report requests which are tied to licensing or funding will be given priority over other report requests at times of high report request volume

Report Creation

1. When a report request is received, the Data Services Supervisor will review the request and assign to the correct data team member within 2 business days
2. The data team member will schedule a Q&A session either in person or over the phone with the report requestor to gather any additional details needed to configure the report within 2 business days of receiving the report request (exceptions due to high volume to be agreed upon with Data Services Supervisor and communicated to report requestor if necessary)
3. The data team member will follow the data validation flow to create a measures map
4. The data team member will then configure the report and trouble shoot any issues internally
5. The data team member will then schedule a data validation meeting with the report requestor, other appropriate interested parties and at least one other data team member
6. The rest of the data validation flow will be completed via this meeting
7. Once report is validated, it will be submitted to the report requestor for submission to grantor/funder
8. Report format will be saved in a data team controlled location (i.e. PHM application directory, EHR directory)
9. All report info and milestones will be recorded in the report request tracking sheet (i.e. report name, requestor, date received, Q&A date, report creation date, data validation meeting date, final submission date) (see appendix)
10. If the report is recurring and the report requestor would like the data team to continue to run/validate the report for them, future due dates will be added to the reports master calendar and data validation meetings scheduled at least 5 business days before the due dates

Given the interconnectedness of HIT systems and the data they generate, a good communication structure and plan – emanating from the data governance committee – are essential for maximizing the value of data to health centers.

DATA VALIDATION

Data systems and/or processes that are involved in the creation of organization reports should incorporate data integrity and validation rules that ensure the highest levels of data integrity are achieved.

Validation rules within data systems should include reconciliation routines (checksums, hash totals, record counts) to ensure that software performance meets expected outcomes. Data verification programs such as consistency and reasonableness checks shall be implemented to identify data tampering, errors, and omissions.

The Data Services Department shall ensure that the data they use and share has been validated and is accurate. The exact procedure for validating data will vary depending on the type of data. The information below is meant to be the general process regarding data validation.

Data Validation Team

Health center will convene, at minimum, a monthly data validation team to ensure regular and consistent data validation efforts. The team will at minimum consist of:

- A Senior Leader Sponsor
- One or more Clinical Care Team members
 - **Examples:** Medical provider, RD
- One or more Systems Specialists
 - **Examples:** EHR, PHM tool
- One or more Quality Improvement Analysts
- A Biller/Coder

The Data Validation Team will ensure these data validation activities occur on schedule:

- **Annually:** Ensure all system libraries are accurate and up to date
- **Bi-annually:** Ensure there are no duplicates in system libraries
- **Quarterly:** Ensure all mapped data is accurate and up to date
- **Monthly:** Ensure data is being entered on time and accurately
- **Ad Hoc:** Ensure any identified issues are audited and resolved

Validating Report Data

1. When creating reports, check that they are conforming to the data measure numerator and denominator definitions
 - Create a crosswalk that defines which fields in the EHR link to the data being collected for the measure
 - Review the crosswalk with those entering data to assure that all data is being collected by the crosswalk.
 - Create a crosswalk that defines which fields in the population management system link to the EHR fields of interest.
 - Ensure reports and searches are mapped to these fields
 - For disease based populations, check that the percentage found in the report follows national averages, if not investigate the variation.
2. Test the integrity of all structured external interfaces (e.g., lab, pharmacy)
 - Every interface pass should have a quality check
3. Provide training for those entering data into unstructured (open text/values) fields as needed/indicated to assure completeness and accuracy of data (e.g., annual new provider training)
4. Perform a “First Look” at the data for unexplained variation over time and/or among providers/ teams/clinics with the report requestor.
 - Compare against past reports (e.g., UDS) and other internal reports
 - Compare against external norms and benchmarks (e.g., CDC and NCQA State of Quality Report) to check relative value of your data and measures
 - **Example:** Diabetic prevalence is 7-10% per CDC
 - **Example:** Use Medicaid Average and 90th percentiles for comparisons in CHC sector
5. Investigate the possible data inaccuracies identified with the “First Look” through additional reports/ searches focused on areas of question and/or conduct conversations with those clinics/providers where the variation exists
 - Check that all the right people are included in the report
 - **Examples:** Patients that should be receiving care, providers that should be providing care
 - Check that all the data for the measure is getting into the report
 - **Examples:** Lab values, TNAA
 - Check that all the data for the measure is accurate
 - **Example:** A1c of 6.5 instead of 65
6. Share the data on a regular and frequent basis (monthly whenever possible, otherwise quarterly as minimum) with DGC, QI committee, Med Ops and most importantly Provider and Staff meetings. Share data completely unblinded in order to get assistance in identifying inaccurate data and to develop provider/ team/clinic confidence that data is reliable. Confidence that data is reliable is essential in moving improvement projects forward.

DATA ACCESS

To ensure that employees have appropriate access to organization data and information. The value of data as an organization resource is increased through its widespread and appropriate use; its value is diminished through misuses, misinterpretation, inaccuracies, and unnecessary restrictions to its access.

Ensure adherence to the organization's policies on security of data, however, procedures established to protect that data should not interfere unduly with the efficient conduct of business. The organization should protect its data assets through security measures that assure the proper use of the data when accessed. Every data item should be classified by the relevant data steward to have an appropriate access level. The IT department should provide the technology framework for data access to be provisioned. The data stewards are responsible for ensuring the access levels are appropriate.

DATA USAGE

To ensure that institutional data are not misused, and are used ethically, according to any applicable law, and with due consideration for individual privacy.

Use of data depends on the security levels assigned by the data steward. Staff should access and use data only as required for the performance of their job functions, not for personal gain or for other inappropriate purposes; they should also access and use data according to the security levels assigned to the data.

Data usage falls into the categories of update and dissemination.

- **Update:** Authority to update data that is reported as key institutional data shall be granted by the appropriate data steward only to personnel whose job duties specify and require responsibility for data update.
- **Dissemination:** Dissemination of data must be controlled in accordance with the security practices set forth by the data stewards. Appropriate use must be considered before sensitive data are distributed. Unauthorized dissemination of data to either internal/external personnel is a violation of this policy.

DATA INTEGRATION

Data integration refers to the ability of data to be assimilated across information systems. It is contingent upon the integrity of the data and the development of a data model, corresponding data structures, and domains. System-to-system interfaces are a standard practice to move data from one system to another in order to streamline processes that extend across systems and contribute to using data efficiently and effectively.

Operational processes often require systems to exchange information. System interfaces are often developed between systems to facilitate the exchange of such information. The systems that exchange information fall into two broad categories:

- **Internal:** Systems that are implemented within the organization's computer systems network. They can either be procured, procured but modified, or custom developed products.
- **External:** Systems that do not reside on the organization's computer network. These systems are hosted by vendors and/or through sub-contracts managed by vendors.

Downloading of individually identifiable data from central systems to electronic files for the purpose of uploading or connecting the data to non-central systems (e.g., shadow systems, external vendors) without the knowledge of the data steward should not be allowed as it introduces risks associated with data integrity, security, and long-term sustainability of IT systems.

Documented agreements regarding data use, retention, and responsibility should exist with the data stewards (and vendors in the case of data integration with external entities) of the systems providing and utilizing data. Data extraction practices that are already in use should be registered and documented agreement developed with the appropriate data steward member.

Good data governance policies and procedures should always be measured by the "Triple Aim." Do they...

- *Improve data quality?*
- *Promote data literacy?*
- *Increase data access and use?*



KNOWLEDGE CENTER VIDEOS FOR PUTTING GOVERNANCE IN MOTION

- ▶ What is Data Literacy?
- ▶ Prioritizing Data Services Projects
- ▶ Balancing Data Access With Privacy and Security
- ▶ 12 Tips for Data Visualization
- ▶ The Data Mall - Something for Everyone
- ▶ Three Systems to Accelerate Improvement

Training and Data Literacy Plan, by Method					
	CONDUCTED BY	FOR WHO	TOPICS (WHAT)	HOW	WHEN
Two-Way Communications	Data Governance Committee	All staff	How data and results are used to make positive change	Newsletters, staff meetings, displays	Ongoing
One-on-One Coaching	Leaders, QI, Business Analysts	Relevant teams and individual staff	Effective interpretation and use of data to make positive change	Provide guidance	Ongoing (during teachable moments)
Data Steward Training	Qualified staff	Data stewards in all areas	Data quality and usability	Dedicated training	Ongoing
IT Tools Training	Qualified staff or IT tool vendor	Relevant staff	EHR PHM Analytics tool reports and analysis	Dedicated training	Periodic (for new and existing staff)
Analytic Skill Training	Qualified staff or vendor, academic institution	QI, business analyst(s), and selected department staff	Graphical displays (dashboards) Statistical techniques (control charts, funnel charts, significance testing)	Dedicated training	Periodic (for new and existing staff)

Visualizations help to increase data literacy among producers and consumers of data.



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