Healthcare Data Governance
Improving decisions and outcomes
…from the boardroom to the bedside
Why this handbook?

This handbook was inspired by our clients—by what they know and where they want to go

Our clients know that data drives their organizations and is a critical tool for navigating a changing healthcare landscape. They understand that data is the fundamental force in rethinking how care is delivered and funded, how patients are engaged and educated, how medical research is conducted, and the roles of the payer and the physician.

In short, they know a lot about data—and they have a lot of it. Yet as the breadth, complexity, and volume of healthcare data grows, they find themselves increasingly challenged to leverage this asset to the benefit of their mission: improving care and lowering costs.

This handbook presents our approach to addressing this challenge. It provides practical, flexible, and actionable guidance for executing a data governance program that aligns with the organization’s priorities, supports effective clinical and business decision-making, and maximizes the value of data to improve outcomes.
ABOUT OUR APPROACH TO DATA GOVERNANCE

This section summarizes the concepts that underlie our approach to data governance. It also introduces a framework to guide your efforts—one that prompts you to create structures and plans tailored to the needs of your own organization. As always, our emphasis is on principles, not prescriptions.

What data governance IS, and is NOT

Data governance IS:

• The discipline of managing data as a strategic asset—the orchestration of people, processes, and technology in a way that supports your organization’s priorities
• Focused on enhancing decision-making and supporting clinical, operational, and financial outcomes improvement
• An ongoing, cross-continuum, and cross-functional effort to optimize data for the benefit of your patients, staff, organization, and community

Data governance is NOT:

• An end to itself—governance for the sake of governance
• An event—a “one and done” activity
• An IT function or department in the organizational hierarchy

Why it matters

For tomorrow’s imperatives

We have a tremendous amount of data in healthcare—but we’re only just beginning to see the benefits of data to understand and respond to the needs of our patients and the future of healthcare.

• We don’t see all the factors that affect a patient’s health.

What determines the quality and length of a person’s life? Access to and quality of clinical care are important of course, and our industry has some visibility into these determinants, via healthcare encounter data.

But what about factors such as our education level, how much money we have, what we eat, how much we exercise, the safety of our neighborhood, and the quality of our air and water? All of these factors have been clearly linked to human health and well-being—and they’re outside the traditional boundaries of healthcare delivery.

The result? Today we have an incomplete, “low-resolution” image of our patients, which limits our ability to improve and extend their lives.

When you elevate data as a strategic asset, you enable better decision-making and promote massive improvement in health, cost, and experience outcomes.

—Tom Burton
President, Health Catalyst Professional Services

PRINCIPLES

These principles represent the core of effective governance; they’re the “must-haves” that support success in any organization, regardless of its specific structures or leadership.

• Stakeholder engagement. Move beyond the IT realm. Engage clinical, operational, and financial stakeholders around an awareness of data as a strategic asset—highlighting its value for supporting better decisions from the boardroom to the bedside.

• Shared understanding. Promote the goals and accomplishments of data governance across the organization and nurture a data-driven culture.

• Alignment. Ensure that data governance clearly supports the priorities and strategies of your organization, serves the needs of users throughout the data life cycle, and balances polarities.

• Focus. Think lean, do what matters most, and adjust as you go. Govern data to the least extent necessary to achieve the greatest common good.

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• We need to adjust to the new value-based care landscape.
The shift to fee-for-value drives the need for reliable data that measures cost of care, margin, and productivity across the continuum of care. It also necessitates the ability for leaders to evaluate the expected return on investments to improve specific healthcare outcomes. Yet most organizations are just beginning to develop strategies to acquire the content they need for population health management.

• More data is available to help us face the future of healthcare.
Innovation is expanding the range of data produced and making it easier to collect, analyze, and understand information. This opens the door to major advances in preventive care, quality of care, and cost of care at an individual and population level—so long as you have governance structures and processes to harness that power.

Done well, data governance is an accelerant to transformation. It allows organizations to achieve the breadth and speed of integration that’s required by healthcare reform, powered by clinical and technical innovations, and vital for improving the cost and quality of care for our patients and communities.

For today’s challenges
Organizations need data governance to meet future imperatives—but they also need it today (and urgently) to confront challenges such as these:
• Inability to respond to new analytic use cases and requirements
• Poor or unknown data quality; data is siloed, inaccurate, inconsistent, unstandardized, etc.
• Lengthy and inaccurate decision cycles
• Inconsistent analytic results from different sources attempting to answer the same question
• Lack of accountability or processes for fixing data quality problems

Do these issues sound familiar? If so, you’re probably aware of their implications for your organization and your patients: financial risks, operational inefficiencies, and safety concerns.

Better data governance can help you overcome these challenges—and in the process, return value to your organization. By ensuring that people have access to the right data and information at the right time and in the right format to make clinical and business decisions, data governance helps realize the organization’s investment in digital capabilities.

DEFINITION
Data governance refers to the people, processes, and technology that are proactively applied to ensure that an organization’s data is managed in a way that maximizes the value of that data to the organization.
ABOUT OUR APPROACH

How we think about data governance work

As an outcomes improvement organization, we believe that the value of data lies in its capacity to improve the cost and quality of care. We also believe, after W. Edwards Deming’s foundational work in quality improvement, that resources should be organized around your front-line, value-added work processes—and that this is especially true of data governance.

The data life cycle represents the flow of data within your organization

The data life cycle, shown below, is important for our view of data governance. It begins with data being captured and integrated, and it proceeds, stage by stage, to its highest station: the moment when data informs human action. At this point, the cycle can begin anew, as the data-driven insights and actions propel additional movement in a “virtuous cycle” of improvement in the use of data.

The life cycle construct is helpful for data governance for several reasons:

• It reminds us of the ultimate purpose of data: supporting human decisions and actions that improve outcomes. This is the vision that should guide data governance priorities, decisions, and negotiations.

• It shows the stages that data may pass through in order to be useful and highlights the cross-functional nature of this journey. Consider how many different transactional systems that data may flow through—and how many different domains (clinical, financial, operational) it may touch—on its way to generating insight and inspiring action. For example, a clinical measure may go from your lab systems to your EHR…to your EDW where its integrated with financial and operational data captured in other systems…to a report or analytics application…that ultimately informs a contract negotiation or a staffing decision.

• It’s a useful conceptual tool for surfacing issues that data governance should address. In looking at your key work processes through the lens of the data life cycle, your team can surface data-related issues that impede your ability to make better decisions.

DATA LIFE CYCLE

Capture
Do we have all the data we need to ideally manage this process—and is it accurate?

Integrate
Have we integrated clinical, financial, and experience data?

Grant Access
Do those making decisions have access to ALL the data that could promote the best decisions?

Deliver Insight
What insights could be presented at the right time in the workflow to encourage better decision-making?

Act
Do we measure how well we act—and do we know how often we fail to realize achievable outcomes?
Data governance encompasses three dimensions

In putting business and clinical processes through the data life cycle, you’ll encounter challenges of three basic types: data quality, data utilization, and data literacy.

To address these challenges and facilitate the flow of data through its life cycle, then, your data governance has responsibilities across these three dimensions:

• **Quality**: ensuring that the data is timely, complete, and accurate to the extent necessary for decision-making
• **Utilization**: ensuring that data access and delivery are optimized for your organization
• **Literacy**: ensuring that the people in your organization have the skills, knowledge, and inclination to use the data for decision-making

Carrying out these responsibilities means that your data governance manages data as an asset. And as with other organizational assets such as buildings, human resources, cash, equipment, and so on, the goal is to eliminate waste and harness the greatest possible value from this resource.

Challenges in 3 dimensions

The schema of the data life cycle helps reveal challenges that data governance can solve to improve the cost and quality of care.
HEALTHCARE DATA GOVERNANCE
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PRINCIPLES
Stakeholder engagement
Shared understanding
Alignment
Focus

SERVICES & TECHNOLOGY

• Data and analytics assessment services: Health Catalysts experts can guide or conduct an assessment to identify opportunities; may be done in conjunction with readiness assessment and analytic skills assessment

• Support for your data governance portfolio:
  – Data quality: Guidance for data acquisition, EHR data capture, data-flow tuning and monitoring
  – Data utilization: Assistance in assessing data availability and analytic skills.
  – Data literacy: Accelerated Practices Program, Analytics Platform and Application Training, Quality & Leadership Program

• Data steward training: Principles and on-boarding tuned to your organization's goals and structures

• Adoption acceleration: Health Catalyst's expertise in leadership and sustained change management can help ensure that your data governance is built to last

ELEVATE
DEVELOP A VISION & AGENDA
- Conduct qualitative and data-driven assessments
- Define a program and vision for data governance
- Secure executive support
- Layer a promotional component into data governance work
  • What you don’t know can hurt you. Consider: what do you wish you knew?
  • Variation is often waste—and often opportunity.
  • Analogy is the key to understanding: Get behind the wheel.
  • It’s best to build a clear case before you form a full team.
  • Transmit the vision for data governance.

ESTABLISH
BUILD AN ORGANIZATIONAL STRUCTURE
- Form a Data Governance Committee
- Designate a leader
- Create a Data Governance Committee charter
- Consider the organization of subgroups
- Determine your approach to data stewardship
- Consider your organization’s analytics strategy
- Governing from Mount Olympus? It’s less than heavenly.
- If you treat data governance like a hobby, you’ll get amateur results.
- Data governance is a marathon. Help your data stewards go the distance.
- Send the signal: data governance is a vital service to everyone.
AT-A-GLANCE FRAMEWORK

IMPLEMENT A PROJECT PORTFOLIO

- Review the issues and opportunities surfaced in your initial assessment
- Determine a method for evaluating initiatives
- Assemble a portfolio of projects across the dimensions of data quality, utilization, and literacy

**Data Quality**—timely, complete, and accurate data
- Assessing the quality of those elements
- Prioritizing data quality improvement efforts

**Data Utilization**—optimized data access and delivery
- Considering the 5 Rights
- Prioritizing data utilization improvement efforts

**Data Literacy**—knowledge, skills, and inclination to leverage data
- Identifying the types of skills and knowledge needed to leverage data for decision-making
- Noting deficits and resources
- Prioritizing data literacy improvement efforts

- Select demonstration projects
- Set up processes to measure and monitor quality before, during, and beyond the projects you sponsor
- As you complete demonstration projects, return to your portfolio to take on new work

- A joined-up view of data governance and outcomes improvement is crucial.
- Beware the early fizzle. Aim to demonstrate value right out of the gate.
- Quality gets conflated with perfection.
- Data stewards have an important role in ensuring quality.
- Data sharing AND data protection? You can have both.
- Collaboration aids negotiation.
- A mix of creative, home-grown approaches can boost data literacy.
- Particular issues point to general challenges.
- Demonstrate data governance in action.

**EXECUTE**

**EXTEND**

Pursue Practices to Sustain the Gains

- Regularly review your data governance project portfolio
- Establish a data governance dashboard
- Refresh team membership and leadership

- The Help Desk has it right: you may need to reboot.
- What does effective data governance look like? Nothing much.
- Role models matter.
- Demonstrate that data-driven is business as usual.

**Data Operating System (DOS):**
This data-first analytics and application platform allows organizations to access data across the entire care delivery system to deliver more effective and scalable programs—and drive better decisions and outcomes

**DOS support across data dimensions:**
- **Data quality:** IDEA (completeness), source connectors and data ingesting (timeliness), data profiling (accuracy)
- **Data utilization:** Reusable logic (Fabric), standard data models, EHR integration, analytic apps
- **Data literacy:** Atlas with integrated measures management

**DOS applications and services to sustain a data-driven culture of continuous improvement including, for example:**
- Touchstone
- Leading Wisely
- Analytic accelerators (100+)
- Patient Safety Monitor: Surveillance
- CORUS: Cost Insights