Data Governance:
What it means and why it matters in today's healthcare information economy

WELCOME

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Agenda

- Healthcare’s new data ecosystem & data economy
- Information lifecycle management
- The principles of data governance
- Data governance maturity: models & measurement
- Fundamental elements of a data governance program
- Developing a data governance roadmap

IMMERSIVE
HEALTHCARE DATA IN DEPTH
First things first . . .

We’re not going to talk about BIG data or SKINNY data.

From our vantage point, data is data.

All data matters, but not all data is created equal.

Data are the building blocks of information, knowledge, and insight.

Healthcare is a knowledge delivery industry.

Data is the water. IT provides the pipes, pumps, and storage tanks.

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HEALTHCARE DATA IN DEPTH
How much new data does your organization create in a day? From which systems?

Where does your business-critical data reside across the enterprise? With whom is it shared?

Do you collect and store the right info to support the organization?

Is the right data available to support timely decision-making?

Is the data consistent within and across the enterprise?

Can you generate performance improvements through data insights?
Why healthcare data is especially complex and difficult to manage

LOCATION
Healthcare data tends to be created and reside in multiple places – different source systems, different departments, on individual devices.

DEFINITIONS
Inconsistent, variable, and subjective definitions based on the source... and new knowledge keeps this target moving.

FORMAT
Text, numeric, paper, digital, images, multimedia, video... and the same data can exist in different systems in different formats.

COMPLEXITY
Claims data, clinical data, myriad variables related to an amalgam of systems, shifting business rules and definitions.

STRUCTURE
Structured vs. unstructured despite best efforts to leverage the EMR as a platform for consistent data capture.

REGULATORY PRESSURES
CMS and HIPAA reporting requirements are just the beginning as the shift to value-based purchasing models will likely add to the reporting burden.
Healthcare’s data ecosystem: a new economy

The five Vs (volume, velocity, variety, veracity, and value) are most often referenced in “big data” conversations, but these attributes characterize what is happening in healthcare’s new data economy . . . yes, it is an economy!
Volume refers to the vast amounts of data generated every second. Just think of all the emails, clinician notes, medical device feeds, images, sensor data, etc., we produce and share every second.

We are not talking Terabytes, but Zettabytes or Brontobytes.

On Facebook alone we send 10 billion messages per day, click the “like” button 4.5 billion times and upload 350 million new pictures each and every day.

Current healthcare data growth rate is estimated at between 45-56% annually with the growth rate of data in the EHR approaching 70%.
VELOCITY:

Velocity refers to the speed at which new data is generated and the speed at which data moves around.

“Speed to data” is critical to “speed to value” – not new concepts in healthcare.

Velocity is paramount in the value-based healthcare system and in the medical neighborhood.

Velocity introduces new risks – data quality and data protection.
Variety refers to the different types of data being created and that we can now use to support the mission of care.

Structured data in our core systems are growing in variety.

Unstructured data like messages, sensor data from wearables, video from tele-visits, and recordings are growing at a breakneck pace and enriching the healthcare data ecosystem.
VERACITY

Veracity refers to the messiness or trustworthiness of the data.

Our data is messy . . . some studies suggest that 20\% or more of healthcare data is of a quality that renders it “usable”.

According to the Aberdeen Group, the more data sources a company uses, the lower the trust in the data – less than 50\% trust.

That’s a statistic that healthcare cannot afford.

Value refers to the tangible business benefit that can be realized from leveraging the data we have and the data we can acquire.

Our healthcare data is a tremendous asset... our most valued asset.

We have only made investment in IT systems to better capture, utilize, and share the data. The value has never been in the systems, it has always been in the data.

Look at what data breaches tell us about the value of our data... the most valuable commercial data set in the world is the healthcare data set.
Data Governance Guiding Principles

- Bring stakeholders together.
- Orient a program, process, or project.
- Resolve data-related conflicts that stall efforts.

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HEALTHCARE DATA IN DEPTH
IG—DG—ITG
Data Governance vs. Information Governance?
Data Governance vs. Information Governance

Data
- Facts, Measurements
- Building blocks of information

Information
- Data in Context
- Examples:
  - Core Measures
  - Collection of Pt Demographics
  - A vendor record in the AP system
Data Governance vs. Information Governance

**Data**
- Facts, Measurements
- Building blocks of information

**Information**
- Data in Context
- Examples:
  - Core Measures
  - Collection of Pt Demographics
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**Data Governance**
- Granular orientation
- Tactical in nature
- Essential to Information Governance

**Information Governance**
- Strategic
- Establishes rules for treatment of data, records and information across the enterprise
Data Governance vs. Information Governance

- **Data**
  - Facts, Measurements
  - Building blocks of information

- **Information**
  - Context
  - Examples:
    - Core Measures
    - Collection of Pt Demographics
    - A vendor record in the AP system

**Data Governance**
- Granular orientation
- Tactical in nature
- Essential to Information Governance

**Information Governance**
- Strategic
- Enterprise-wide
- All types and all media of data and information
- Establishes rules for treatment of data, information, and records across the enterprise

**DG ≠ IG, BUT**

**DG and IG Are Inextricably Linked**

AHIMA.ORG/INFOGOV
Why Adopt IG in Healthcare?
IG in Healthcare - Respond to Demands

Quality, Safe Care
Pop Health
Reimb Changes
Delivery System Changes
BI & Clinical Analytics

Costs

= Imperative
For Trusted
Information
IG in Healthcare Benchmarking Survey

Drivers for IG

>\/ = 90% Agreement by over 1,000 Respondents on Drivers for IG in Healthcare.

The who, what, when, where, why, and how.
WHO is involved?

ANYONE who has an interest or role in how data is created, collected, processed, manipulated, stored, made available/accessible, or disposed of is a data stakeholder.

In our healthcare system, this is practically EVERYONE.
WHAT does data governance do?

Brings cross-functional teams together.

Provides the framework to serve the intersection of IT and the business to do the work necessary to establish confidence and credibility in the health system’s data.

Encompasses the development and integration of a set of rules – policies, guidelines, and standards – for managing enterprise data, resolving issues, and monitoring compliance.

It guides us as to how we “decide how to decide.”

Data is what it is supposed to be (data quality).
Data is in the correct context (data integrity).
Data is accessible (data usability).
do organizations need data governance?

When the health system gets so large that traditional management is not able to address data-related, cross-functional activities.

When the health system’s information systems get so complicated that the traditional management is not able to address data-related, cross-functional activities.

When the health system’s business leaders need the support of a cross-functional program that takes data out of siloes and into an enterprise view.

When regulations, compliance, or contractual requirements call for formal data governance.
WHERE does the data governance program sit in the health system?

This varies greatly – operations, IT, corporate compliance, risk management, health information management.

At the onset, establish the program where there is the strongest executive sponsorship and support.

Ultimately, Immersive believes that a Data Management Office (DMO) needs to be created to objectively and effectively lead all data-driven initiatives.
Why introduce data governance?

If our healthcare data is our most valuable asset, why do we not care for it the way we do our facilities? Our equipment? These things depreciate in value while our data is only appreciating in value!

As our data set grows, so do the costs to store, manage, and protect it. This fact is lost on leadership and the budgets that are allocated.

Data governance ensures that data is trusted, secure, and can be leveraged as the tremendous asset it is.

Data governance is not a luxury – it is a necessity.
WHY employ a data governance framework?

Helps us organize how we think, communicate, and approach complicated concepts – especially when there is little organizational experience.

Keeps us focused and provides “guard rails” that promote and reinforce sound decision-making as we build our own knowledge and experience.

Enables clarity and consistency of thought and purpose across the enterprise.
HOW

does a health system do data governance?

Decide what is important and document a value statement

Document a roadmap (more to come on this)

Design

Deploy/implement

Monitor/measure

Report

Expand

NOTE:
Be prepared for an iterative process that takes most organizations about two years to mature.
Benefits of Data Governance

- **Efficiency improvements** – more efficient processes, greater understanding of the data available, clear coordination across projects.

- **Reducing risk** – effective understanding of the data environment, opportunities for data quality improvement, and risks for data loss.

- **Compliance** – accurate reporting, compliance with regulations.

- **Revenue creation** – better business decision-making enabled through better data.

- **Competitive advantage** – improving market insight, analytics for targeting, and strategic decision-making.
AHIMA: Leading IG for Healthcare

AHIMA Definition
An organization-wide framework for managing information throughout its lifecycle and for supporting the organization’s strategy, operations, regulatory, legal, risk, and environmental requirements.
Framework for IG Adoption

- Principles
- Tool & Resources
- Maturity Model
AHIMA: Leading Information Governance for Healthcare

**Principles—IG PHC™**
- Accountability
- Transparency
- Integrity
- Protection
- Compliance
- Availability
- Retention
- Disposition

Broad, Comprehensive, Non-Prescriptive

Attribution – ARMA International. GARP arma.org
Information Lifecycle

Capture → Process → Use → Store → Dispose

Informative Access and Use
Information Lifecycle

- Capture
- Process
- Use
- Store

- Share
- Availability
- Accountability
- Transparency
- Dispose

- Protection
- Integrity

AHIMA.ORG/INFOGOV
An accountable member of senior leadership, or a person of comparable authority, shall oversee IG and delegate responsibility for information management to appropriate individuals.
Healthcare organizations must also define USES of Information and assure Governance of those Uses.

TRANSPARENCY

An organization’s processes and activities relating to information governance shall be documented in an open and verifiable manner.
Trust in Information requires definition of and focus on the quality and reliability of information.

**INTEGRITY:** Information generated by, managed for, and provided to the organization must have a reasonable and suitable guarantee of authenticity and reliability. Information must be trustworthy.
Appropriate levels of protection from breach, corruption and loss must be provided for information that is private, confidential, secret, classified, essential to business continuity, or otherwise requires protection.

Must address all sources, all media and must apply throughout the life of the information.
Information practices and processes must comply with organization policies and all applicable laws, regulations, and standards.
Access to information where and when it is needed—critical to safe, quality care and timely decision making.

For Healthcare – focus on standards, practices, tech infrastructure and contingency measures to assure Availability.
Retention

An organization must retain information in accordance with its legal, regulatory, fiscal, operational, risk and historical requirements.
Information no longer required to be maintained by applicable laws and the organization’s policies, must be dispositioned in a secure and appropriate manner.
Framework for IG Adoption

Principles

Tool & Resources

Maturity Model
HealthCare Information Governance Maturity Model™

- Broad use of the Maturity Model will enable:
  - A recognized scoring mechanism for IG maturity level
  - Peer group benchmarking
  - An indication of trustworthiness of an organization’s information
  - An indication of partnership desirability for accountable care, preferred provider networks, information exchange membership
AHIMA Healthcare IG Maturity Model

Adapted from informatica.com/perspectives.
2/1/13 Rob Karel
IG Framework

IGPHC
Guiding Principles for Guiding Information

Maturity Model
5 Level Model for Assessing and Scoring Guiding Principles

Tools & Resources
Tools and Resources for Operationalizing IG for Healthcare

IG Pilots
AHIMA IG Pilot - Overview

- 15 – 20 Healthcare Organizations
- Multiple organization types and settings
- Minimum commitment 12 months
- Pilot kickoff, orientation in 2015 Q2
AHIMA IG Pilot—Objectives

- Validate and refine maturity model
- Develop, use, and refine IG Toolkit
- Document “lessons learned” in IG implementation
- Identify and document best practices for IG in healthcare
- Document healthcare IG case studies
- Build an IG maturity scoring, reporting, benchmarking application
- Beta test IG maturity application
Data Governance
How-To

Program elements
Roadmap development

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IG Support Components—Overview
Program elements: rules/rules of management

<table>
<thead>
<tr>
<th>Mission &amp; Vision</th>
<th>Goals, Success Measures &amp; Funding</th>
<th>Data Rules &amp; Definitions</th>
<th>Decision Rights</th>
<th>Accountabilities</th>
<th>Controls</th>
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<tbody>
<tr>
<td>Proactively define/align rules</td>
<td>SMART goals – revenue, cost, quality, compliance, risk management</td>
<td>Establish data-related policies, standards, rules, definitions, and compliance requirements</td>
<td>Who gets to make data-related rules and decisions?</td>
<td>Define accountabilities</td>
<td>Preventive, detective, corrective</td>
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<td>Provide ongoing support to data stakeholders</td>
<td>Metrics – what does success look like and how is it measured</td>
<td>Inventory existing</td>
<td>When?</td>
<td>Who is expected to do what and when</td>
<td>Network/OS</td>
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<td>React to and resolve issues</td>
<td>Funding plan – committed resources commensurate with the maturity level sought</td>
<td>Create new</td>
<td>Using what process?</td>
<td>Educate and train</td>
<td>Database</td>
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<td>Envision what the health system looks like with mature data performance</td>
<td>Address gaps and overlays</td>
<td>Align and prioritize</td>
<td>The “metadata” of decision making</td>
<td>Embed data-related performance criteria in every job description</td>
<td>Application</td>
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<td>Align and prioritize</td>
<td>Formalize and adopt</td>
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<td>User processes</td>
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<td>Change management</td>
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<td>Training</td>
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IG Support Component — Structures & Infrastructure

Accountability – Transparency – Integrity
Protection – Compliance - Availability
Retention - Disposition
IG Support Component — Organization Support Services

- Change Management
- Communication
- Training
- Standards, Best Practices
- Project Management

Accountability — Transparency — Integrity
Protection — Compliance — Availability
Retention — Disposition
Program elements: people & organizational bodies

1. **DATA GOVERNANCE COUNCIL**
   - Cross-functional
   - Policy & Standards Setting
   - Issue Resolution

2. **DATA STAKEHOLDERS**
   - Affect or are affected by data decisions
   - Data creators
   - Data consumers
   - Data users

3. **DATA STEWARDS**
   - Execute policies
   - Surface issues
   - "Super users"

4. **DATA MGMT. OFFICE**
   - Runs governance program
   - All data-driven initiatives are centralized here
   - Provides SME to the health system
IG Support Component - Roles and Authority

Information Governance Leader (e.g. CIGO, SVP of IG, VP of IG)

Bus Units
HIM & EIM
IT
BI, RM, QI, Safety
Privacy, Security
Legal, Compliance
Other Org-Wide Programs

Accountability

AHIMA.ORG/INFOGOV
Program elements: processes

PROCESS 01
- Align policies, requirements, and controls
- Establish decision rights
- Establish accountability
- Perform stewardship

PROCESS 02
- Manage change
- Define data
- Resolve issues
- Specify data quality requirements

PROCESS 03
- Build governance into technology
- Manage & motivate stakeholders
- Manage communications
- Measure & report value
IG Support Component — Policies, Processes, Practices

Information Lifecycle:
- Capture
- Process
- Use
- Store
- Dispose

Share / Exchange

Accountability—Transparency—Integrity
Protection—Compliance—Availability
Retention - Disposition
Data governance program roadmap

1. Establish the cultural tone of the "Data-driven health system"
   - Corporate Commun: emails, staff meetings, policies, & programs

2. Build people & organizational structures
   - Create data governance council and data stewardship model
   - Establish organizational charters & ideas/issue triage response processes

3. Conduct current state assessment
   - Identify and benchmark current capabilities, issues, and needs against a chosen maturity model
   - Anticipate varied performance across the health system – normalize

4. Establish data strategy, adopt a framework & create an operational charter
   - Start with the future state in mind to define strategy based on data value belief system
   - Adopt a data governance framework. Create the charter for the data governance council and supporting organizational structures

5. Initial implementation: scenarios and validation
   - Select an existing data issue and perform “proof of concept” based on program elements and processes
   - Refine program, processes, framework, and communications

6. Formalized DG organization launch and responsive implementation
   - DG org is formally introduced to the enterprise and KPIs for data governance are introduced broadly
   - Health system brings data issues and/or new projects to the DG organization

7. Proactive program implementation
   - Data stewards assume more active role in identifying business events or activities that stream into DG program
   - DG program agility and responsiveness are primary areas of focus

8. Program expansion
   - Explicit buy-in from key stakeholders and executive leadership is achieved.
   - Priorities are refined.
   - Metrics are enhanced.
   - Program and standards compliance monitoring is introduced.
   - Data strategy and health system strategic plan are harmonized.

9. Strategic data governance and data-driven operations
   - Data governance transformed into real-time change-driven, on-demand business process delivering high quality data to the enterprise reliably.
   - Data stewardship is ubiquitous across health system.
First Healthcare IG Benchmarking Survey—White Paper

White paper available now: ahima.org/infogov

Cohasset Associates | AHIMA 2014 “Information Governance in Healthcare—A Call to Adopt Information Governance Practices”.
http://www.ahima.org/IGwhitepaper.
2015 Second Survey on IG in Healthcare—Evolving Roles
AHIMA: Leading Information Governance for Healthcare—Recommended Reading


Management is the decisions you make.

Governance is the structure for making them.
Questions?

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THANK YOU!