A Case Study: Walgreens Boots Alliance Data Governance

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Walgreens Boots Alliance is the first global pharmacy-led, health and wellbeing enterprise in the world. Our purpose is to help people across the world lead healthier and happier lives.

Walgreens Boots Alliance was created through the combination of Walgreens and Alliance Boots on 31 December 2014. This transaction brought together two leading companies with iconic brands, complementary geographic footprints, shared values and a heritage of trusted healthcare services through pharmaceutical wholesaling and community pharmacy care, dating back more than 100 years.

- A presence in more than 25* countries
- Employs over 370,000* people and is the largest retail pharmacy, health and daily living destination in the USA and Europe, and (including equity method investments) is:
  - The global leader in pharmacy-led, health and wellbeing retail with over 12,800* stores in 11* countries
  - The largest global pharmaceutical wholesale and distribution network with over 340* distribution centers delivering to more than 180,000† pharmacies, doctors, health centers and hospitals each year in 19* countries
  - The world’s largest purchaser of prescription drugs and many other health and wellbeing products

* As at 30 November 2014 including equity method investments on a pro-forma basis excluding Alliance Healthcare Italia which ceased to be an equity method investment of Alliance Boots in December 2014

† For year ended 30 November 2014 including equity method investments on a pro-forma basis excluding Alliance Healthcare Italia which ceased to be an equity method investment of Alliance Boots in December 2014
How are Data Governance Organizations Built?
Data Governance Can Start “Top Down”..

**Executive Sponsorship**
- CEO, CFO, COO Sponsorship
- Data valued as an enterprise asset
- Political, Financial, Organizational Support

**Data Governance Founded and Built**
- CIO, CAO Leadership appointed
- Mission, Vision, Roadmap defined
- Staffing, Tooling strategy

**Road to Maturity**
- Roadmap executed, critical domains governed (MDM, RDM)
- Analytics governed
- Full lifecycle data management in place
...Or can grow from more humble roots

<table>
<thead>
<tr>
<th>Data Quality Management</th>
<th>Master Data Management</th>
<th>Analytics Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- A team supporting a single application, usually MDM or DW.</td>
<td>- Team supporting specific domains for Master Data Management.</td>
<td>- Analytics data quality focused.</td>
</tr>
<tr>
<td>- Focus is on DQM.</td>
<td>- Focus on DQM for specific domains</td>
<td>- Support for DQM for data warehouse.</td>
</tr>
<tr>
<td>- Staffed by BA &amp; QA analysts in IT.</td>
<td>- Can be focused on one business area (e.g. Supply Chain).</td>
<td>- Can be IT or Analytics COE residing in business.</td>
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<td></td>
<td>- Usually part of an operating area or IT.</td>
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Any of these can seed a larger, more comprehensive program.
Walgreens to WBA - Managing Through Change
Building Data Governance at Walgreens

2009
- Data Governance focused on one domain (patient/customer)
- Housed in one application team
- One FTE
- No published policies or standards
- Operational governance only

2010
- Data Governance moved to Enterprise Architecture
- Allowed for broader focus
- Still one domain focused, one FTE
- Successes in MDM and data quality
- No published policies or standards

2011 - 2014
- Increased business engagement
- 3 Tier Structure, Roles defined
- Introduced DAMA DMBOK Data Management concepts
- Formal DG Office, 3 FTE
- Formalized and broadened Governance, business focus and engagement

What are 7 critical things built during 2011-2014 that helped us navigate through change?
#1: Define Data Governance as a Function

Components of the Enterprise Data Governance Program

- **People**: Establish and develop the organizational hierarchy of business and technology representatives.
- **Standards**: Establish standards for master & reference data, metadata, classification, accessibility, etc.
- **Metrics**: Establish business metrics for monitoring and measuring overall business impact.
- **Policies**: Establish Data Governance policies for data management (e.g., outbound data sharing).
- **Process**: Establish processes for data management (e.g., data issue tracking/resolution, data quality monitoring, data sharing, etc.).
- **Technology**: Identify and establish technology best practices and methods for improving data management.
- **Education**: Provide the communication, collaboration, socialization, and training for supporting program across the enterprise.
#2: Introduce the concept of Enterprise Information Management

Context within the DMBOK Framework
#2 ..and Customize the Data Management Framework as needed
Over 130 Stewards involved in the program. Subject matter experts (SMEs) from both the business and IT areas are included in committee or team meetings, as required, to provide additional expertise in a specific area or on an issue.
#4: Engage a Broad Range of Data Stewards ..and define their roles clearly

- Data Stewardship
- Master and Reference Data Management & Governance
- Analytics Governance
- Data Quality Management
- Compliance, Data Privacy (HIPAA), Legal
- Data Policies & Standards
- Data Monetization
- Data Security
- Education and training
#5: Define, Create and Document Data Policies and Standards

**Data Policies**

**Definition:** *Data Policies* are the overall business rules and processes that an enterprise utilizes to provide guidance for data management. Policies might include adherence of data to business rules, providing guidance for protection of data assets, compliance with laws and regulations, defining enterprise data management functions, and others.

**Examples:**
- Data Classification Policy
- Data Sharing Policies
- Data Governance Policies
- Information Security Policies
- HIPAA Privacy Policies

**Data Standards**

**Definition:** *Data Standards* are the precise criteria, specifications, and rules for the definition, creation, storage and usage of data within an enterprise. Data Standards include basic context items like naming conventions, number of characters, and value ranges. Data Standards may also dictate specific quality measures, retention rules, and backup frequency.

**Examples:**
- Data Standards, such as Name and Address
- National and Industry Standards (HL7, GS1)
- Data Quality Standards
- Meta Data Standards
- Data Model Standards
#5: ..and leverage National & Industry Standards
#6: Create Clear, Documented Processes, and use them
#7: Formalize Documentation & Market the Program

Formalize Documentation

- Create and publish a **Common Language** for the Data Governance program:
  - **Business Glossary**
  - Document program activities
    - Meeting agendas and minutes
    - Processes, request forms
  - Document program Standards, Policies, Roles

Market the Program

- Networking and relationship building
- **Communication is 2 way**: Understand the issues, and make sure your stewards feel heard
- Be clear on what you offer – understand your **value proposition**
- **Branding** (logo on everything)
How did the merger change things? What artifacts, processes, structures were retained as useful? What changed? What was discarded?

Let’s examine 7 things.
#1: Adjust Mission / Vision / Business Objectives

**Walgreens DG Mission / Vision:**
Establish a data governance program to fully manage our corporate data as an enterprise asset.

**Business Objectives:**
- Reduce overall business **cost**.
- Improve **business capability**.
- Mitigate **data risk**.

**WBA DG Mission / Vision / Objectives:**
- Drive **enterprise alignment** and standardization for **master data** domains, balancing centralization with business agility.
- Drive **data quality** with KPIs on governance and compliance.
- Align with the governance of **analytics** and decision support.
- Mitigate **data risk**.

And adjust Marketing too 😊
#2: Update the Data Management Framework

- **Data Governance**
  - Data Policies, Standards, Processes, Organization, and Stewardship

- **Master Data & Reference Data Management**

- **Analytics Data Management**

- **Data Sensitivity & Risk**

- **Enterprise Data Model**
  - Data Structure and Framework

- **Metadata Management**
  - Data Context, Glossary, Language

- **Data Quality Management**
#3: Expand the Program Structure - Master Data Governance

- Three-tier structure retained, but now dual:
  - Enterprise – across businesses
  - Divisional – within business
- Turnover, change in scope and focus caused loss of 80% of stewards. Rebuild required.
- Centralized governance function with distributed data management execution.
- Integrated with major program activity: following the investment.
Data Management and Data Governance needs to facilitate teams to govern Master Data and Data Analytics.
Richer staffing, changes in organization will be needed to succeed with the additional complexity.
Both data governance and data management are divisional. Data remains managed by business owners.

Governance is centralized for enterprise and cross program data; otherwise is divisionally governed and managed. Centralized COE may audit enterprise data for conformance to standards.

Data is governed and managed in one or more centralized COEs. These COEs may manage data governance, master data management, and/or data analytics.

Data Governance may evolve by domain over time to a more centralized form, but the principle remains that data should be managed close to the business that owns and uses it.
#4: Data Stewards and Advisors – Rebuild, Add HR

- A combination of enterprise business and technical stewards gives the richest view of data for master and analytic data governance.
- Legal, Compliance, Risk Management, and Information Security are needed for data classification and risk management.
- Human Resources needed if data governance and data management results will be included in employee expectations or will cause organizational change.
- Business stewards can monetize data where needed.
#5: Policies and Standards: Adapt to Global, Organizational, and Divisional Variances

- **Global Policies:** Due to variances in local laws, local terminology, and divisional culture, global data classification policies must be done at high level.

- **Divisional Standards:** Divisional standards may be much more specific.

- **Divisional Procedures:** Can be very specific, and serve divisional needs.
#5: Standards and Terms must accommodate variances

<table>
<thead>
<tr>
<th>Article -- Item</th>
<th>Takings -- Receipts</th>
<th>Chemist -- Pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post -- Mail</td>
<td>Stock -- Inventory</td>
<td>Till -- Cash Register</td>
</tr>
<tr>
<td>Note -- Bill</td>
<td>Jab -- Immunization</td>
<td>Fill -- Prescription</td>
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</table>
#6: Offer a Service Catalog - define what you offer

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Governance Consulting and Support</strong></td>
<td>Support and consulting for divisional and program data governance councils and programs.</td>
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<tr>
<td><strong>Data Policies and Standards</strong></td>
<td>Data policy and standard research, development, approval and implementation; including application of national, international, and industry standards.</td>
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<tr>
<td><strong>Metadata Management</strong></td>
<td>Development and maintenance of enterprise glossary. Development and maintenance of metadata for critical data elements (CDE’s). Support of metadata repository content.</td>
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<tr>
<td><strong>Data Quality Management</strong></td>
<td>Enterprise Data Quality Standards. Consult, advise on divisional and program data quality efforts. Audit data quality for enterprise data.</td>
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<tr>
<td><strong>Enterprise Data Model</strong></td>
<td>Development and maintenance of logical data model.</td>
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<tr>
<td><strong>Analytics Governance Support</strong></td>
<td>Development of analytics governance standards. Facilitation of enterprise analytics data governance councils.</td>
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<td><strong>Data Risk Management</strong></td>
<td>Data classification, or sensitivity rating. Includes de-identification and test data management consulting. Audits and guides for specific data.</td>
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#7: Documentation: Retain and Enhance Formal Documentation; add a Data Management Maturity Assessment

Retain and Enhance Documentation:
- Expand Business Glossary
- Common Language more important than ever
- Policies, Standards, Roles

Networking, Marketing – as important as ever

Metadata tool – more needed for stewards located around the globe

Measuring Maturity - showing progress – sample below

## EIM Program Area

<table>
<thead>
<tr>
<th>EIM Program Area</th>
<th>Organization</th>
<th>Process</th>
<th>Technology</th>
<th>Data</th>
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<tbody>
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<td>Data Governance</td>
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<td>Data Modeling</td>
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<td>Metadata</td>
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<td>Master &amp; Reference Data Management</td>
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## Maturity Levels:
- Initial
- Developing
- Planned
- Measured
- Enhancing

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Lessons Learned

- Structure, Standardize, Document.
- Balance centralization with business agility.
- Integrate with EIM.
- Network, Market, Communicate.
- Think global, act local.
- A little bit of luck helps too.
Questions
Thank You
Janet Lichtenberger is an information management consultant and manager. Specialties include data governance, data policy (data privacy, data governance), master and reference data management, business glossary / metadata management, data standards, data quality, data modeling, information governance (records & email management), business requirements, analytics / business intelligence, and application development.

She has founded and implemented programs in data and information governance, and managed large, multi-phase client implementations for new lines of business. Corporate and consulting experience includes pharmacy, retail, healthcare, insurance, banking, human resources, others.

She serves as the VP of Operations for the Wisconsin DAMA Chapter, is a judge for the 2017 DGPO Best Practice Award, and was the co-chair for the DGPO Data Governance Best Practices Working Group in 2016.