

Health Data Analytics Business Case

The Business Case for
Increasing Health Data
Analytics Maturity



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White Paper



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Healthcare organizations are now forced to answer more detailed questions than ever, which drives the need for increased maturity in health data analytics (HDA) capability. Today's organizations need answers about past performance, such as "what happened" or "how much was spent?" They must answer real-time questions, like "what is happening now?" and "what's the immediate impact?" There is also a growing need for analytics to provide predictive capabilities, such as "what will happen if 'X' occurs?"

Despite the business need to obtain these answers, HDA maturity level at most health organizations is relatively low. As a result, too much time is spent collecting and validating data, and too little time analyzing that data to make decisions. Organizations with low HDA maturity are typically restricted to basic retrospective or investigational analyses – essentially assessing results after their impact has occurred with no ability to affect outcomes.

By increasing their HDA maturity, organizations can create answers to emergent and immediate questions, and eventually leverage predictive analytics to guide performance. HDA maturity increases the value that analytics can deliver, enabling organizations to:

- Increase revenue
- Decrease costs
- Avoid unnecessary costs
- Improve strategic positioning

Increasing HDA maturity, however, is not simply a matter of implementing software. It requires the alignment of all relevant constituents. To increase HDA maturity, organizations must develop a business case to justify the project and approach, facilitate project approval, and create a basis for measuring project value. This white paper details how to create an HDA business case and explores the benefits of this approach.

Aligning Constituents

The healthcare industry encompasses numerous stakeholders with diverse perspectives, all of whom require answers to a myriad of questions. From an executive perspective, these questions represent the need to understand the following:

- Cost and profitability of DRGs
- Costs and expenses associated with a service line
- Service line efficiency
- Health plan usage

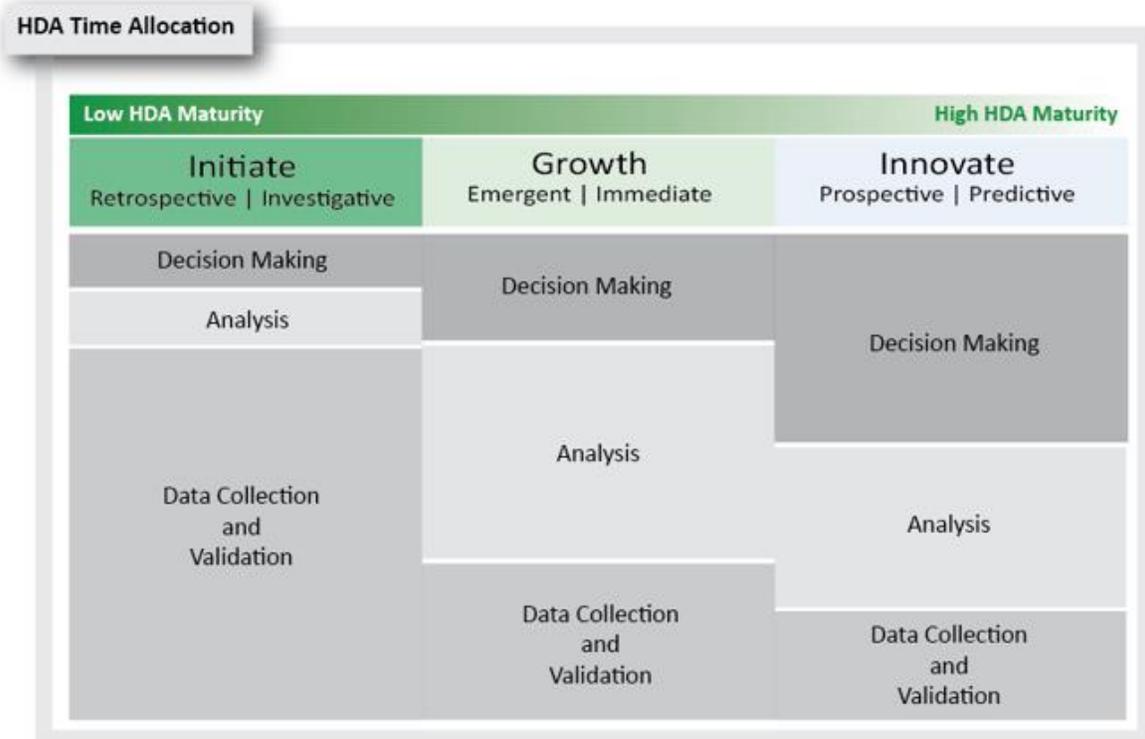
Clinicians have a very different perspective, and they require answers to facilitate clinical integration and to support quality improvement initiatives and research. Among other executives, there is a need to ensure compliance with federal programs and how to prepare accountable care organization (ACO) participation.

These examples represent only a small subset of the questions that demand answers. The point is, all of these stakeholders must be aligned when creating a business case to drive improvements in HDA maturity.

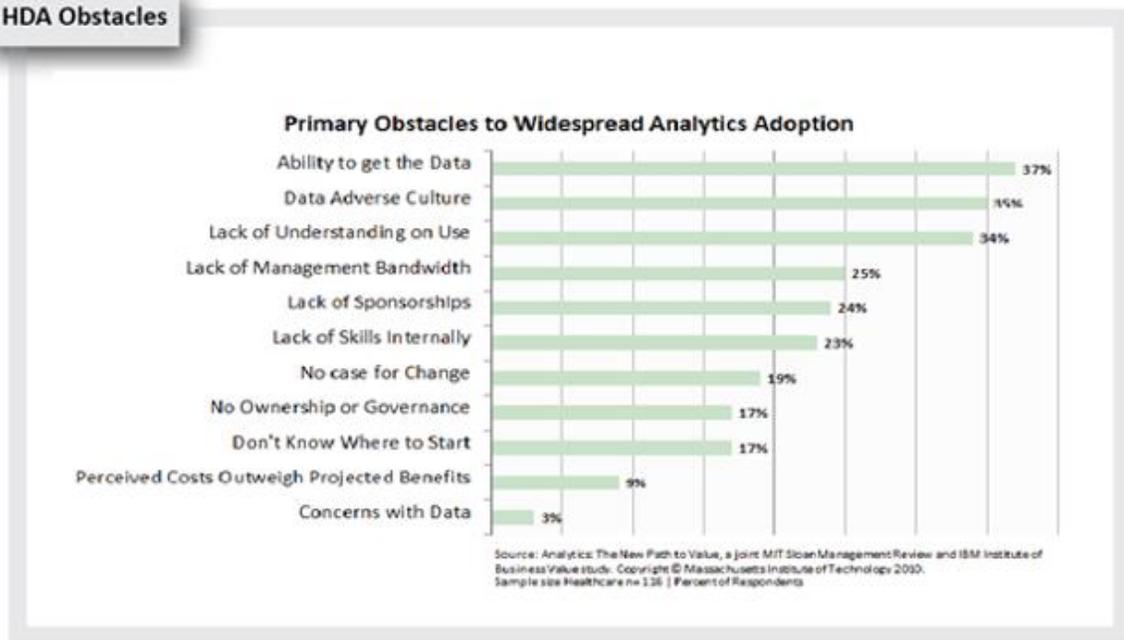
Health Data Analytics Defined

HDA is the thoughtful combination of business intelligence (BI) and clinical intelligence (CI). For HDA to create value, it requires timely and relevant data to help organizations make intelligent business and clinical decisions that drive action.

The value that HDA delivers is determined by its maturity level. When HDA maturity is low, organizations spend an inordinate amount of time on data collection and validation. As HDA maturity increases, organizations realize greater value through improved analysis and decision making.



HDA Obstacles



Organizations striving to increase their HDA maturity face significant cultural, technical and managerial obstacles. Overcoming these obstacles requires the creation of a business case to align constituents and focus efforts on achieving mutually defined goals.

What is a Business Case?

A business case provides leadership with a common operating picture, enabling them to make informed decisions on the best course of action to increase HDA maturity. A business case is the product of an assessment (i.e. where you are now) and a gap analysis (i.e. where you want to be and the effort for attainment). It also focuses on how HDA fits into an organization's strategy, and that organization's change readiness.

A business case provides organizations with:

- Justification for the decision to initiate a project
- A collaborative and iterative approach
- A defined need or problem that the project will meet or solve
- Context for the decisions that need to be made
- Recommended courses of action (COA)
- An all-encompassing view of the initiative – far beyond a typical cost/benefits analysis

An effective business case achieves stakeholder buy-in and aligns with the organization's priorities and culture. It must define problems and needs for solutions in a plausible and believable manner to resonate with all stakeholders. This helps provide justification for the undertaking. Most importantly, the business case must be right-sized for the organization. To achieve appropriate buy-in, a right-sized business case is commensurate with the:

- Gap between where organization is and where it needs to be
- Decision-maker's preferences
- Organization's culture

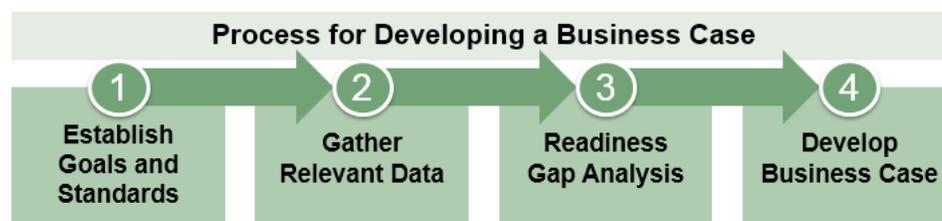
Business Case Components					
Background/ need for data analytics maturity	Business requirements	Courses of action (alternatives)	Resource requirements	Limitations and constraints	Recommended course of action
<ul style="list-style-type: none"> • Benefits • Opportunities 	<ul style="list-style-type: none"> • Resolve defined need or problem 	<ul style="list-style-type: none"> • Alternatives available • Advantages and disadvantages • Stakeholder impacts 	<ul style="list-style-type: none"> • People • Time • Budget • Technology 	<ul style="list-style-type: none"> • People • Time • Budget • Technology 	<ul style="list-style-type: none"> • Recommended approach to implementation

HDA Business Case Features and Benefits

- **Hospital readiness** – Identifies and defines current readiness for increasing HDA maturity
- **Change focused on the process, not the people** – Reduces defensive behavior of stakeholders
- **Leadership understanding of end-user’s attitude toward HDA** – Helps choose the correct approach for gaining the widest possible adoption
- **Executive assessment summary** – Creates awareness among senior leaders regarding opportunities, decisions, and leverage points
- **Detailed assessment report** – Identifies strengths, obstacles and watch areas for implementation
- **Clear COA direction** – Ongoing actionable items to increase functionality and close adoption gaps
- **Third-party assessments** – Provides unbiased assessment of your current situation while leveraging best practices across many industries

Developing a Business Case

The development of a business case represents a systematic look at the full spectrum of opportunities and challenges associated with increasing HDA maturity. In advance of this complex, multi-stakeholder initiative, it is important to examine how increasing HDA maturity will impact the organization, people, technology, and related processes.



Enablers are an integral component of the HDA end-to-end process. Enablers work in concert to efficiently deliver desired outcomes. Each enabler’s maturity must be commensurate with the desired level of HDA maturity. Additionally, each enabler should mature into a center of excellence that is coordinated with the common goals of an HDA-enabled process.

HDA Capability Enablers			
People	Technology	Data Quality	Governance
<ul style="list-style-type: none"> • Skills & Roles • Patient Needs and Desires • Responsibilities • Accountability • Training • Organization Structure • Informatics 	<ul style="list-style-type: none"> • Data Modeling • Master Data • Access • Security • Analytical & Reporting Tools • Dashboards • Infrastructure 	<ul style="list-style-type: none"> • Reporting • Dashboards • Quality • Feedback • Action Planning • Execution • Data Acquisition • Workflow Improvement 	<ul style="list-style-type: none"> • Strategy • Projects • Metrics • Training • Policy • Security • Standards

While establishing goals and standards, organizations need to account for multiple perspectives, including:

- **Financial** – What must we deliver to sustain financial viability?
- **Customer** – What do our customers expect from us?
- **Internal** – At which processes must we excel to deliver what our customers expect?
- **People/Knowledge** – How must we develop the organization?

This variety of perspectives must to be represented in the data gathering aspect of business case creation. Data gathering should include surveys, interviews and focus groups, in addition to detailed observations and document reviews. To avoid disruption of current operations, the data gathering process with individuals should be streamlined to minimize the time commitment necessary to participate in the process.

A readiness gap analysis can be enhanced through the creation of a capability enabler dashboard, which helps organizations rank their resources. This information is used to determine potential COAs based on needs and the resources already available and those resources that can be acquired.

Lessons Learned

In order to legitimize a business case in the eyes of all stakeholders, there are several critical success factors that must be addressed in terms of leadership and data when increasing HDA maturity.

Business Case Critical Success Factors	
Leadership	<ul style="list-style-type: none"> • Integrate with the organization’s culture • Achieve buy in from leadership on the value of data, and how it contributes to achieving organizational goals and survivability • Show the correlation to the strategic plan how data is an enabler • Define the problem HDA seeks to understand and solve • Show how data helps with the decision making process • Demonstrate how HDA facilitates workflow integration • Articulate and develop the skills necessary for health data analytics • Accommodate population health strategies
Data	<ul style="list-style-type: none"> • Be seen by all as establishing the “source of truth” for data • Increase data quality and usability • Maintain a data curator • Make data actionable • Enable data mining (text to data)

Benefits of Increasing Health Data Analytics Maturity

Like many complex initiatives, increasing HDA maturity is a journey and not a destination. During the journey, organizations must frequently assess where they were, where they are now, and where they are going with their strategies. The organizations that increase their HDA maturity will benefit from increased capabilities that will drive:

- **Revenue Increases** – Reimbursement, bed management, referrals, and increase confidence in data to make decisions that impact revenue
- **Cost Decreases** – Lower readmissions, cost containment and more
- **Cost Avoidance** – Identifying and preventing costs associated with staffing and supplies, while also reducing risks and improving risk response
- **Strategic Positioning Advancements** – Improvements in case mix and payer mix, as well as improved decision making speed and accuracy

Tell Your Story

An effective business case tells a story. It illustrates the need for the initiative and explains why *now* is the right time for action. The narrative within the business case describes how it meets the organization's definition of success, and how it aligns with the organization's priorities and culture. And, like any good story, it must be believable and plausible, which is essential for the business case to provide justification for a decision.

With these components in place, a business case can justify the project and approach, gain approval, and help the organization prepare for current and upcoming challenges.



ABOUT THE AUTHOR

Celwyn Evans is a founding partner at Greencastle Associates Consulting. Celwyn retired from the US Army with over 20 years of total military service. Throughout his military career he leveraged data and intelligence sources to lead small specialized units and large staff planning at the task force level. Since starting Greencastle in 1997, he has led countless successful projects for leading healthcare organizations nationwide. His ability to intertwine the best practices of change management, project management and process improvement into a single cohesive strategy has been instrumental to Greencastle's ability to help clients succeed.

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About Greencastle Associates Consulting

Greencastle Consulting is a healthcare consulting firm that is unique in its approach to critical healthcare projects. At Greencastle, the best practices of change management, process improvement and project management are intertwined with Greencastle's 5 Rights of Implementation Methodology to create their Implementation Methodology. Using their Implementation Management as the foundational approach to each project has allowed Greencastle's clients to successfully meet the challenges of an ever-changing healthcare landscape. Founded on a strong military background, Greencastle has been providing metric-driven results to healthcare organizations in the Delaware Valley since 1997.