IBM Institute for Business Value

The value of analytics in healthcare

From insights to outcomes

Overview

Healthcare organizations around the world are challenged by pressures to reduce costs, improve coordination and outcomes, provide more with less and be more patient centric. Yet, at the same time, evidence is mounting that the industry is increasingly challenged by entrenched inefficiencies and suboptimal clinical outcomes. Building analytics competency can help these organizations harness "big data" to create actionable insights, set their future vision, improve outcomes and reduce time to value.
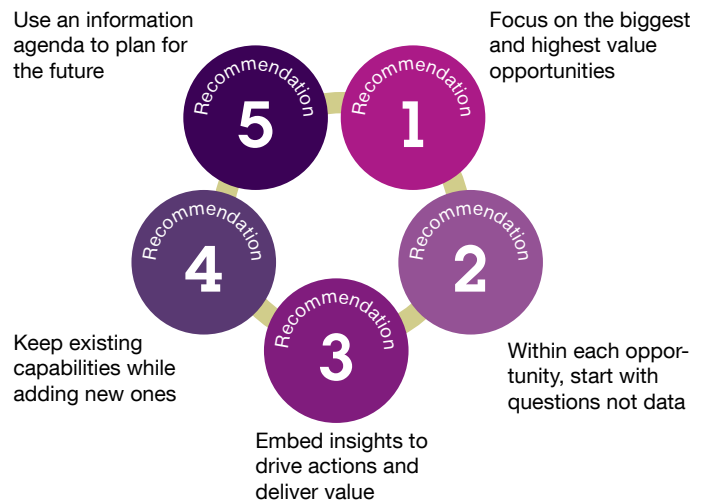
The global healthcare industry is experiencing fundamental transformation as it moves from a volume-based business to a value-based business. With increasing demands from consumers for enhanced healthcare quality and increased value, healthcare providers and payers are under pressure to deliver better outcomes. Primary care physician and nursing shortages require overworked professionals to be even more productive and efficient. The cost dynamics of healthcare are changing, driven by people living longer, the pervasiveness of chronic illnesses and infectious diseases, and defensive medicine practices. New market entrants and new approaches to healthcare delivery are increasing complexity and competition.

As tumultuous as the current environment is, it is expected to become even more complex over the next several years. Among healthcare executives interviewed for the 2010 Global CEO study, 90 percent expect a high or very high level of complexity over the next five years, but more than 40 percent are unprepared to deal with it.[1] This immense complexity confronting the healthcare industry will require smarter, more informed decisions to enable the improved outcomes and better value required by market dynamics, increasing governmental regulation, and today's more demanding consumers.

Analytics can provide the mechanism to sort through this torrent of complexity and data, and help healthcare organizations deliver on these demands. To determine how to apply analytics to their current challenges, gain insight and achieve faster time to value, a joint study by MIT Sloan and IBM surveyed 130 healthcare executives from around the world.[2]

What we found is that it takes big plans, followed by discrete actions, to gain the benefits of analytics. But it also requires some very specific management approaches. Based on 2010 MIT study data, IBM's engagement experience, case studies and interviews with experts, we have identified a framework for healthcare analytics driven management transformation that can help organizations drive value (see Figure).

Use an information agenda to plan for the future

Focus on the biggest and highest value opportunities

Recommendation 5

Recommendation 1

Recommendation 4

Recommendation 2

Recommendation 3

Keep existing capabilities while adding new ones

Within each opportunity, start with questions not data

Embed insights to drive actions and deliver value

Source: Analytics: The New Path to Value, a joint *MIT Sloan Management Review* and IBM Institute of Business Value study. Copyright © Massachusetts Institute of Technology 2010.

Figure: **The path to value operationalizes analytics.**

Focus on the biggest and highest value opportunities

Search for your organization's biggest and highest priority challenge. Focus on a clear priority is necessary to align organizational efforts, no matter your analytics sophistication.

Within each opportunity, start with questions, not data

Start attacking the selected high value opportunity area by gaining insight into the problem space through questions you would like answered. They will lead to a better understanding of the information that is needed and the data that can be used to generate that information.

Embed insights to drive actions and deliver value

Analytics has no value unless it is acted upon. Strong linkages among information production and knowledge translation, change management and quality improvement are hallmarks of more advanced analytic organizations.

Key Contacts

IBM Institute for Business Value
James W. Cortada
jwcorta@us.ibm.com

*GBS Global Healthcare Centre of
Competence*
Dan Gordan
dangordan@ca.ibm.com

Healthcare Analytics
Bill Lenihan
bill.lenihan@us.ibm.com

Keep existing capabilities while adding new ones
Healthcare analytics is not a destination, but a journey that is never completed as organizations move along the sophistication spectrum. New analytic competencies are always built on a foundation of existing technical, data, operational and business capabilities.

How can IBM help?

- **Business Analytics and Optimization:** BAO Strategy, Business Intelligence and Performance Management, Advanced Analytics and Optimization.

- **Strategy and Transformation:** Innovation and Growth; Operations and Finance; Organization and People

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Notes and Sources

1   "Capitalizing on Complexity: Insights from the 2010 IBM Global CEO Study." IBM Institute for Business Value. May 2010. http://www.ibm.com/ceostudy

2   2010 *MIT Sloan Management Review's* New Intelligent Enterprise Global Study, conducted in partnership with IBM.

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