Information-based Transformation

Modern healthcare: data rich, information poor
Organizations spend tens of millions of dollars acquiring and implementing advanced information systems that collect incredible amounts of data every day. Many systems focus on clinical transformation – improving clinical efficiency and outcomes. While these systems are designed to provide data quickly – one patient at a time – most are not designed for cross-patient analysis. Organizations find themselves stymied when trying to prove how the system has affected outcomes.

It is time to turn this data into healthcare information.

Leveraging data for clinical excellence
The need for clinical, financial and administrative analytics spans the enterprise. Frequently the focus is on quality outcome, patient safety initiatives, pay-for-performance reporting, or mandatory JCAHO and CMS reporting. In research organizations, genotypic and clinical care data are also combined to advance personalized care and discover new treatments.

Simply dropping all available data into a database and providing access to it is not the answer. While such a database will contain vast amounts of data, without careful planning and organization the data will be difficult to access, and thus ineffective for practical use. For example, anyone running reports against an unorganized database will likely sift through piles of useless data before finding their answer.

Successfully combining disparate data from multiple sources for practical use requires a plan driven by how the data will be used. Designing the analytic environment based on the clinical and business issues the organization intends to address will result in an integrated, enterprise-wide informatics plan that will carry the organization through a multiyear design, build, and execute process.
For best results, a knowledge management program should be in place before focusing on the technology. This should include processes for discussing the inevitable conflicts, and for prioritizing any modifications required by new information needs and data sources. Because not all needs can be met simultaneously, a successful data model requires careful examination of issues such as governance structure and the data management process.

Once a knowledge management process is in place, the organization should inventory its current data analytic tools and databases so that existing tools can be leveraged when building the new enterprise analytics environment.

**Decision framework**

Through this planning stage, a decision framework must be defined to guide current and future prioritization. This framework should:

- Be composed of “principles” describing the needs and aspirations of the organization as pertaining to health analytics
- Reflect the clinical and business goals and objectives of the organization
- Indicate how the organization will address standards
- Describe how a balance will be maintained between clinical care delivery efficiency and data needs for research

Armed with a decision framework, an inventory of current capabilities, and a consensus of priorities, the organization can determine the necessary plan or “roadmap” to follow during the design, build and execute process. This provides an orderly analytic environment appropriate to the goals of the organization. While it is not uncommon for the full build out to take five years, with proper planning, “first productive use” should occur within 12 to 18 months.

Healthcare is not static. As new conditions arise and needs change, your informatics roadmap must be adaptable. The decision framework can be used to “course correct” within the construct of your original objectives as changes need to be made—knowing specifically what you are changing, why, and what effect it will have on your overall plan.

**About the IBM Health Analytics Roadmap**

The IBM Health Analytics Roadmap methodology helps healthcare organizations rapidly define an actionable, multi-year plan for defining and building an analytic environment to support translational research, clinical care delivery and operational efficiency. This effort is a pragmatic approach focused on building a collaborative, effective decision-making process which results in a detailed, executable plan supported by stakeholders from across the organization. It leverages IBM’s deep experience in business intelligence within healthcare and other industries in order to speed time to solution.

**For more information**

To learn more about IBM Healthlink Solutions Implementation Services, contact your IBM representative or visit: [ibm.com/bcs/healthcare](http://ibm.com/bcs/healthcare)

**IBM Healthcare Solutions are enhanced by the clinical and business process expertise of Healthlink Incorporated, which was acquired by IBM in 2005.**