Turning Information into a
Valuable Asset

With the widespread adoption of electronic health records, healthcare organizations have access to more data than ever before. The challenge, however, lies in turning all of this information into knowledge that can be used to move forward – in terms of improved clinical care, enhanced patient experiences and reduced costs.

Michelle Kirk, program manager with Iron Mountain, along with Dr. Kulleneni Gebreyes, partner with consulting firm PwC, recently addressed this challenge during Health Information Insights: The Information Value Index, a webinar sponsored by Iron Mountain and hosted by Health Data Management magazine.

During the program, the speakers focused on the results of the Information Value Index, a survey conducted by PwC that zeroed in on how well organizations are currently extracting value from information – and what they can do to improve efforts in the future. In addition, they specifically offered their insights into how healthcare organizations can go beyond simply collecting information and move toward managing it to experience the "information advantage."

The Value of Information

Kirk opened the session with the good news: As innovative "big data" and analytics technologies continue to emerge, healthcare organizations now are in a position to unlock the value of data. Indeed, organizations can leverage data that they create, receive or even buy. As such, these organizations can use data in ways that would have been impossible just 10 years ago.

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However, organizations need a comprehensive and collaborative information strategy to move in this direction. Such a strategy can guide organizations as they seek to gain value from their information, making it possible to turn data into an asset rather than a liability.

Following this course can help organizations experience an "information advantage." Such an advantage can be realized by effectively managing information in new or novel ways that can change how healthcare organizations:

- Interact with key stakeholders
- Support new business models
- Predict patient behaviors
- Identify opportunities to improve operating efficiencies
- Enhance patient satisfaction

Understanding the Value of Information

To turn data into this competitive asset, though, organizations must first truly appreciate data's potential. To gain a deeper understanding of the possibilities, Iron Mountain worked with PwC to create the Information Value Index.

This index measures how well organizations currently manage and leverage information to move their businesses in the right direction. The index is derived from responses to 36 statements based on the level of awareness and priority that organizations currently assign to deriving value from the information that they hold. Overall, the study included 1,200 mid-size organizations and 550 enterprise-size organizations in various industries such as financial services, insurance, legal, manufacturing and others.
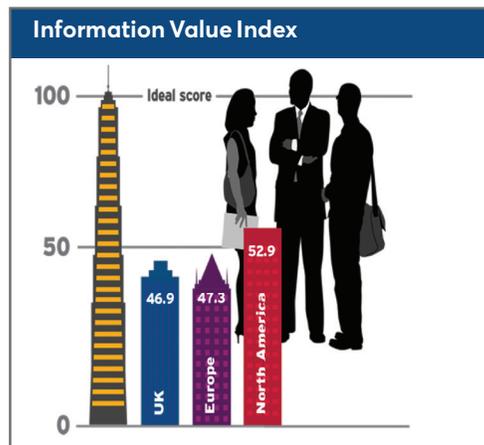
In essence, the survey assesses how organizations make the most of information. More specifically, respondents who participated in the study answered questions about:

- **Organizational Capability:** This is measured by the extent to which organizational processes, governance structure and culture are sufficiently aligned to meeting this objective (e.g.: IG steering committee/counsel established, etc.).

- **Technical Capability:** The skills, tools and methods deployed to extract value (e.g.: tools from Excel to Analytics, skill sets including analysts/scientists).

- **Benefits Realized:** This is reflective of the benefits achieved (such as improved customer experience, quicker decision making, improved efficiencies, etc.).

The average index score for organizations across all industries was 52, out of a possible 100 points, demonstrating that there are still significant improvements to be made.

During the webinar, however, Kirk and Gebreyes focused on findings from the 150 U.S. based healthcare organizations that participated in the study. These organizations scored an average of 55.8 on the scale (see chart on page 3), slightly behind leading industries such as financial services and manufacturing — but also slightly higher than what was expected.

Information Value Index

*Information Value Index: measures how well different businesses in different countries currently manage their information for competitive advantage.

The results indicate that only a subset of healthcare organizations, as yet, understand how to leverage their information for its greatest advantage. In fact, only 7% fall into the information elite category. These are the leaders in the field, the organizations that truly understand what is required to leverage their data to its greatest advantage. They have quickly worked out what it takes to exploit and deliver value from the information they hold. They have developed the right culture, created the governance and invested in the analytical skills and tools required to deliver value and support strategic initiatives. Not many healthcare organizations have reached this level though. In fact the remaining 92% of organizations fell below this threshold (see chart).

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Information Landscape for Healthcare Organizations		
7%	Information Elite	An information governance oversight body is well established, and involves all of the key functions; strong culture of evidence-based decision making.
8%	Enlightened Enterprise	An information governance oversight body is in place and has representation from multiple functions; culture of evidence-based decision making.
21%	Agile Mid-Market	An information governance body is in place and is dominated by IT; leadership appreciates the benefits of exploiting information.
38%	Informed but Constrained	Constrained by regulation and legacy approaches; an information governance oversight body is in place and is dominated by IT; a strong analytical capability exists in the organization but it is not focused on the value.
26%	Uninformed and ill-equipped	Constrained by knowledge, resources and regulation; an information governance oversight body rarely exists; little focus on exploiting value from information or appreciation of the benefits.

Although it is relatively early in the big data revolution, the speakers contended that organizations that do not seek to maximize the potential of their information risk their ability to fully support key healthcare industry initiatives. And, according to the study, the vast majority of organizations have a long way to go before they can really harness the total value from their information.

Fully leveraging information to experience the "information advantage," however, is not easy. It requires new strategies and investments in training, tools and technology. It also requires an executive vision that drives acceptance, implementation, and ideas for harnessing the data that you have.

"It's basically about taking information that you have and repurposing it [by] applying innovative processes and tools to analyze that data and share it with people inside your organization who are able to interpret it and convert it into insights that are meaningful in your clinical and business decisions," Kirk said.

Because the undertaking requires significant resources, the fact that the larger organizations performed better than the smaller organizations was to be expected, according to Gebreyes. Indeed, 61% of study participants said they have ambitions to manage the value of information but don't have the resources.

A look at how the trailblazing information elite organizations are managing information, however, provides some insight into best practices and can provide a roadmap, of sorts, for aspiring organizations.

"The typical profile for this group is that they have an information governance oversight body that's extremely well established," said Gebreyes. "It's involved in key decision and key functions and by default has a strong culture that really allows that organization to make evidence-based decisions."

Leveraging Information to Improve Performance

With such a governance structure in place, organizations can move on to leverage information to improve performance. According to Dr. Gebreyes, health organiziations can:

Better predict patient behavior. "You can use both your internal organizational data with external data to really predict your patient behavior and provide preventive care that, for example, lowers emergency medicine use or helps you understand when your OR schedules are going to be busy or when your customers are more likely to purchase any other of your services."

Personalize care. "Another way that we find that information can be really helpful is understanding how you personalize the care for your patients across populations including understanding what are the needs of your sickest - versus what are the needs of your worried well or the millennium group, who may be really interested more in wearable devices."

Empower informed decision-making. "For patients and consumers and families, information can be really helpful in making informed choices. This is actually

something that's critical for providers as well." Gebreyes pointed out that clinicians commonly express the desire to extract information that actually helps them make better decisions.

Improve productivity. "What information value allows you to do is to simulate utilization patterns, to understand your patient needs so you can actually staff appropriately. You can reflect back on your staff in terms of what is the workload that is appropriate. And, this really helps you have very informed conversations where people can make real-time decisions on appropriate labor and workforce management issues so you can derive benefit for your organization."

Better manage populations under value based care. By better leveraging information, healthcare organizations can better "manage the population that [they've] taken risk for. It gives you two things. You have more confidence in the decision you make, and you're actually able to retain your customers more effectively."

Some organizations are already experiencing results by leveraging information more strategically. Gebreyes presented an example illustrating how an integrated delivery network leveraged information to understand how they can be more cost-effective while improving the patient care experience.

The organization was able to look at its own data including patient population data, and combine it with claims data to understand utilization patterns. The organization was even able to use social media data to track and risk-stratify their patient population and to understand their needs. Based on that information, they were able to actually design their provider network and their assets across the regional area to make sure patients had enough access to their system and received the care that they needed. The analysis enabled the organization to close some facilities, open others and change its portfolio of services to better serve patients. In the final analysis, the organization realized greater than 20 percent cost reduction from an expense standpoint and got money back from their participation in a shared savings program.

While such leading organizations are already experiencing success, all organizations can travel down this same road. To move forward, the speakers recommended that organizations start to leverage information and create value by engaging senior leadership support, assessing existing skill sets and identifying a small project to kick things off.

"My counsel and advice is really to start with the benefit impact first. The conversation should really begin with the benefit impact of what the information value can provide. Then speak to the organizational and technical skills required," Gebreyes said.

Indeed, embracing the possibilities is what is most likely to move organizations in the right direction. "We want to encourage you to drive your information value, to challenge the status quo, to leverage the expertise you have or advocate for more expertise in this area," Kirk said. "Go out there and learn about data. Learn what's possible. Come up with some creative ideas for using data that you have. The more you exercise your brain and your capabilities and readiness for that, the better off you're going to be and the better off you're going to position your organization."