ICD-10 Advantages Require Advanced Analytics

Compliance alone will not deliver on ICD-10’s potential to improve quality of care, reduce costs and elevate efficiency. Organizations need to find and apply meaning from the new code sets, which requires new IT infrastructure, partnerships and people.

Executive Summary
ICD-10 promises to improve outcomes and efficiency for healthcare organizations. However, ICD-10 compliance alone will not deliver many of these benefits. Healthcare organizations must have a robust analytics foundation and capabilities to unlock the knowledge and insights detailed in ICD-10 code sets.

Developing the required analytics foundation and capabilities is expensive and time-consuming. It also requires extensive planning and management, especially considering the many competing initiatives and resource constraints across the healthcare value chain. Fortunately for the U.S. healthcare system, the country’s relatively late adoption of ICD-10 has allowed analytics and supporting technologies to mature and become more affordable.

Despite the required effort, the time to start embracing advanced analytics is now; organizations that wait risk being left behind competitors that prioritize such initiatives and begin to realize significant business benefits. This white paper explores how advanced analytics will enable healthcare organizations to realize the opportunities and potential benefits of ICD-10, including improved quality and efficiency. It examines the analytics foundation, the importance of partnering with industry stakeholders, best practices and next steps.

Why Analytics Must Complement ICD-10 Compliance
ICD-10 improves the structure, capacity and flexibility for capturing greater clinical detail to support advances in medical knowledge and technology. Powerful analytics then make it possible for healthcare organizations to uncover patterns, causal relationships and insights in the ICD-10 data that they can use to achieve strategic objectives and competitive advantages that go beyond regulatory compliance. By combining ICD-10 data with a strong analytics foundation, tools and culture, healthcare organizations can address two key business objectives – increasing quality and improving process efficiency – to deliver better care at reduced cost.

Organizations need to understand that migrating to ICD-10 will not automatically confer these benefits. First, achieving ICD-10 regulatory compliance is required of all healthcare entities...
as of Oct. 1, 2014, so compliance merely levels the playing field. Turning compliance into a competitive advantage requires healthcare organizations to invest in analytics’ capabilities from a technology, people and process perspective. Collaborating with business partners is critical to share and leverage information that spans multiple organizations, such as quality and outcomes data. Without these internal efforts and partnerships, ICD-10 can increase complexity and expense rather than provide quality and efficiency. The primary reason for this is the thorny challenges inherent in working with the larger ICD-10 code set.

To effectively leverage ICD-10 codes, organizations need to consider ICD-10-enabled initiatives in terms of their alignment with the corporate strategy, including both competitive factors and industry trends. The first step is identifying and prioritizing all ICD-10-enabled initiatives that support the business strategy and related objectives. Many of these initiatives require or are supported by analytics that use ICD-10 codes (e.g., measuring provider outcomes, designing population health management programs and improving reimbursement accuracy). Building or enhancing the organization’s analytics foundation and related capabilities must be completed as part of implementing ICD-10-enabled initiatives.

**Advanced Analytics are Fundamental**

Advanced analytics means more than just bigger and better reports or more data to view or manually mine. Advanced analytics effectively integrates disparate internal and external data and extracts information that predicts, identifies opportunities and supports innovation rather than simply identifying trends and root causes.

The increased quality and insights delivered through advanced analytics are based on actionable information, customized to the needs of each stakeholder, and delivered in a timely manner through the most appropriate channels. In some cases, the actions based on these decisions are automated, freeing stakeholders to focus on higher value-add activities.

Figure 1 shows the key elements of analytics delivery for three types of stakeholders. This is not meant to be exhaustive, but illustrative. Advanced analytics supports stakeholders with information, tools, format/presentation and channels.
Two Dimensions of Analytics

Figure 2 illustrates the two dimensions of analytics — delivery and foundation — as well as the elements they contain. This includes:

- **Analytics provisioning:** Getting the right information (not just data) to the right stakeholders through the right channels at the right time.

- **Analytics foundation:** Infrastructure, data schema and architecture, data integration and analytics capabilities that enable analytics delivery.

Analytics provisioning is supported by an analytics foundation that includes four distinct yet integrated and coordinated layers:

- **Analytics infrastructure:** The foundation to store, federate and manage data, support architecture and data schemas, and deliver on nonfunctional requirements, such as response time, load and performance.

- **Architecture and data schema:** The architecture of the IT landscape elements that support analytics storage, integration and delivery. This layer also includes the data schemas that provide the organization and structure that aligns with the business concepts necessary to support the strategic objectives.

- **Data integration:** The integration of both internal and external data, regardless of where it is stored, to support stakeholders’ information needs.

- **Analytics delivery:** The tools and processes that manipulate data into actionable information based on each stakeholder’s needs.

Implementing an analytics foundation is a time-consuming, complex and expensive undertaking, but it is a prerequisite for delivering actionable information. The entire analytics foundation does not have to be built before implementing analytics capabilities leveraging ICD-10 codes. Instead, layers of the analytics foundation can be built out as needed to support specific analytics initiatives. Doing so allows an organization to realize benefits more quickly — an important consideration for securing, justifying and maintaining project funding. Careful planning and management is needed due to the variety of business initiatives and regulatory compliance projects under way at healthcare organizations, which creates complexity and resource challenges.

Additionally, developing an advanced analytics foundation involves not only IT and analytics...
capabilities, but also organizational structure, business and technical stakeholders, training, business processes, policies and procedures, partners and other dimensions. In short, an organization must embrace a culture of advanced analytics to ensure that all dimensions are considered and appropriately addressed.

Healthcare institutions must evaluate the cost-effectiveness of building the analytics foundation internally or working with experienced third-party service providers, freeing internal experts to work with the actionable information delivered by analytics. This approach can enable healthcare organizations to engage in critical initiatives even with limited time, resources and other constraints.

To start, healthcare organizations need to identify opportunities for ICD-10 by systematically reviewing strategic and business objectives based on competitive pressures, industry trends and regulations. This includes understanding where and how ICD-9 codes are currently used and how ICD-10 codes will be used in their place. Each objective can be achieved through one or more initiatives requiring a certain analytics infrastructure. Each has different costs, benefits and timelines that need to be evaluated and prioritized.

**Improving Quality**

The combination of analytics and the specificity and granularity of ICD-10 is particularly potent in the area of quality improvement. Some examples of the quality initiatives that can be achieved when analytics are applied to ICD-10-derived data include:

- **Facilitating comparison and evaluation of processes and outcomes across the healthcare landscape** by using additional ICD-10 precision when specifying diagnoses and procedures.
- **Improving population identification and severity stratification and specificity**, enabling enhanced case management, disease management and wellness program administration.
- **Providing detailed data for medical management intervention and information** to better tailor programs to patient and population needs to improve conditions or help keep them from progressing. Understanding whether patients are getting better or worse helps with decisions regarding the most appropriate and cost-effective facilities and treatments.
- **Comparing results of specific treatments to improve effectiveness, outcomes and safety.** Medical errors and duplication of work can be reduced through increased understanding of diseases and resources used for treatment.
- **Empowering members through access to actionable information** so they can make better healthcare decisions, thus reducing costs.
- **Improving research by allowing better inferences and conclusions to be made from the more specific ICD-10 data.** Treatments, delivery and outcomes can be improved, and effective procedures, prevention, interventions and therapies can be developed.
- **Creating provider networks with improved performance that better serve patient needs through** closer alignment with their population illness burden. This improves quality, reduces cost and increases patient satisfaction.

Improved ICD-10 outcomes benefit all constituents in the healthcare landscape – members receive better, safer and more effective treatment; payers reduce benefit expenses; and providers increase reimbursement when contracts are based on outcomes. All require analytics capabilities that deliver accurate, timely and actionable information.

**Increasing Business Process Efficiency**

Added ICD-10 specificity and analytics-based insight into causes and effects enables increased automation, efficiency and accuracy in business processes. Understanding where ICD codes are used is the first step in identifying and prioritizing opportunities. Some examples:

- **Detecting and preventing fraud, waste and abuse** by creating both rules and analytics that use the increased specificity of ICD-10 codes.
- **Clarifying the relationship between provider performance and patient outcomes** to better support pay-for-performance, provider contracting and network management objectives.
- **Improving auto-adjudication rates** by analyzing and understanding root causes about why claims do not pass. Fewer claims
are rejected, resulting in greater efficiency in billing and reimbursement processes.

Both accurate claims coding by providers and implementation of effective claims processing rules by payers are necessary to support business process efficiency improvement objectives. While more specific codes are available in ICD-10 and the number of “unspecified” codes is reduced, this alone doesn’t guarantee their use or that they will improve overall coding accuracy. Payers can encourage providers to code accurately and to effectively leverage ICD-10 by eliminating payment for ICD-10 codes that are inappropriately coded as unspecified.

**Partnering for Benefits**

In addition to internal activities, it is important for payers, providers and all healthcare organizations affected by ICD-10 to partner with and support each other to achieve compliance and maximize benefits from ICD-10. While it is true that some ICD-10 benefits based on analytics can be realized entirely within one organization, healthcare is based on collaboration among organizations.

For example, outcomes can only be optimized by sharing and leveraging information that spans organizations to improve quality episode outcomes where a patient is treated by multiple providers at several facilities over a period of time. Otherwise, each entity operates without a view of the bigger picture, leading to missed opportunities and the risk of working at cross-purposes.

Organizations need to identify and prioritize common objectives with business partners. Key to success is deep competency in patient-centered and other analytics. This enables two crucial capabilities: the ability to measure outcomes and discover areas for improvement, as well as the ability to measure costs and identify and eliminate waste. Neither is easy. Both require deep analytics proficiencies that are often lacking in the healthcare landscape. Many healthcare organizations currently have a collection of point solutions, disparate technologies and varying capabilities.

Cooperation, integration and trust among partners are essential. Even with these elements in place, significant challenges remain, including differing levels of capabilities among organizations, the lack of data standards, interoperability challenges and immature vendor products. Healthcare partners — payers, providers and others — need to collaborate for common goals and shared benefits. Partners must work together to support the ICD-10 transition and eliminate obstacles.

And the collaboration doesn’t stop at compliance; leveraging evolving experience leads to continuous improvement. Payers can help providers by using analytics to identify quality gaps and training needs and to support outreach programs.

**Looking Forward**

Organizations need to identify, prioritize and plan initiatives that will leverage ICD-10 to provide competitive advantage, address business objectives and coordinate with business partners. The following recommendations are key to successfully delivering ICD-10 benefits by creating a requisite analytics foundation and capabilities.

- Develop a culture of advanced analytics.
- Continuously identify and evaluate the potential for ICD-10 data-based initiatives.
- Educate staff and implement a process to manage ideas.
- Collaborate with partners for mutual benefit.
- Monitor the industry — experience, research and other guidance — for ideas and approaches before and after compliance.
- Approach implementation of ICD-10 benefits as a journey rather than a destination.

Success in leveraging ICD-10 depends on a deep analytics competency, built on a combination of technology, talent and organizational changes that encourage true partnerships and foster a culture of advanced analytics.

Many healthcare organizations are far along in their ICD-10 compliance journey; they now need to think about how to effectively leverage ICD-10 codes. Leaders will not only achieve compliance, but they will also position themselves for transformation. To achieve this, healthcare organizations must develop and implement an analytics foundation, capabilities and culture, which requires a significant investment, and takes time to plan, design, implement, test and train impacted human resources. Yet without these capabilities, healthcare organizations will not realize ICD-10’s full potential to reshape the cost, quality and delivery of care.
About the Author

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