

January 2017

Infusing Data Analytics Into Healthcare Internal Audit

An article by Terri L. Allen, CIA, ACDA; Scot K. Murphy, CFE, CIA, ACDA; and Thomas J. Stec, CIA, ACDA

The use of data analytics is elevating many areas of healthcare, and internal audit is no exception. Data analytics is the process of identifying, gathering, validating, analyzing, and interpreting various forms of data using computerized tools to provide meaningful intelligence. As the healthcare field becomes increasingly complex and data driven, data analytics can enhance an organization's ability to understand and mitigate risk.

Benefits of Data Analytics in Internal Audit

Using data analytics within a healthcare organization's internal audit function offers many benefits. A strong data analytics program is more risk focused, can increase efficiency, and can provide auditors with more complete information, which in turn produces more meaningful results and higher-value audits.

- **Data analytics provides an approach that is more risk focused.** It can provide a quantified, data-driven risk assessment. The use of analytics also encourages deploying resources to high-risk areas, which can expedite fraud detection.
- **It is often more efficient than conventional testing methods.** Data analytics provides repeatable audit testing that can be used for follow-up on current engagements. In addition, it provides testing logic that auditors can use for other engagements. It also reduces time spent on low-risk areas and is more efficient than conventional testing methods simply based on the automated nature of the testing activity.

- **It offers higher value.** Data analytics offers quantified results and allows testing of 100 percent of a population. Traditional audit techniques have inherent limitations in that auditors are able to perform only limited sample testing. With data analytics, an entire population can be analyzed. Data analytics also provides insight into operations and helps internal auditors identify outliers, patterns, and trends within the audit.

As financial and regulatory pressures continue to increase within the healthcare industry, organizations are looking for ways to maximize efficiency of resources. Enhancing the internal audit function with data analytics can help free up scarce audit resources, allowing the audit team to cover traditional audit areas more efficiently.

Harnessing data analytics will benefit internal auditors and their organizations now and in the future. Here are four steps healthcare organizations can take to begin using data analytics in their internal audit processes.

1. Start Small, Then Build

If an organization is new to data analytics, implementation can seem like a daunting task. But even small steps can go a long way in eventually building a more robust data analytics program within the internal audit function.

Internal audit staff can start simple by sorting, summarizing, and sampling data in spreadsheets using basic computer software. This basic sorting and summarizing in spreadsheets can eventually evolve into more elaborate analyses performed using dedicated data analytics software. Over time, internal audit staff can increase the volume and sophistication of analytics until virtually every engagement has incorporated data analytics.

2. Move to a More Formal Approach

Once the organization is ready to build a more formal, robust approach to using data analytics, internal audit staff will need to make the business case to hospital or health system leadership by highlighting data analytics as a strategy. This is necessary to justify to organizational management the financial investment in technology, tools, and other resources needed to sustain a successful data analytics program. As with many important initiatives, data analytics programs cannot succeed without senior leader buy-in.

Implementing data analytics into the internal audit function is a strategy like any other organizational strategy. To that end, staff should have a clear goal of what they wish to accomplish with their data analytics program, list the main objectives required to accomplish that goal, and determine budget needs for fulfilling the goal.

3. Perform a Thorough Assessment

The first step after deciding to move ahead with a formal data analytics strategy is to perform a complete assessment of the organization's audit needs, the types of data available in the organization, skill sets (aptitude for data analytics) possessed by current staff members, and the organization's current overall commitment to data analytics. This analysis will help guide decisions in essential areas, including whether to have a centralized and dedicated analytics team or whether to have the existing audit team incorporate data analytics as part of its functions, which software and hardware to select, and what training will be required.

A thorough assessment of the organization's audit functions and needs will help define roles for the data analysts and the audit team. The internal audit department also should establish core standards for its data analytics program, including standards for documentation, data requests, data validation, exception reporting, follow-up, and quality review.

4. Determine Resources and Training Needs

As the organization begins using data analytics within its internal audit function, another important consideration is that additional resources or staff training may be needed in the area being audited. For example, if the audit team is analyzing clinical coding, the team may need to acquire specialized knowledge about clinical coding, or it may need support from coding specialists within the organization.

Audit Today's Risk

In today's fast-paced healthcare environment, organizations need to employ more sophisticated risk analyses and audit tools. The use of data analytics can bolster internal auditors' abilities to unveil vulnerabilities in processes that could expose the organization to undue or unplanned risk. Moving beyond traditional internal audit methods will allow organizations to audit today's risk rather than yesterday's risk, making data analytics a critical component in moving healthcare internal audit into the future.

Connect with us

Terri Allen
+1 501 552 6506
terri.allen@crowehorwath.com

Thomas Stec
+1 314 802 2043
thomas.stec@crowehorwath.com

Scot Murphy
+1 314 802 2037
scot.murphy@crowehorwath.com