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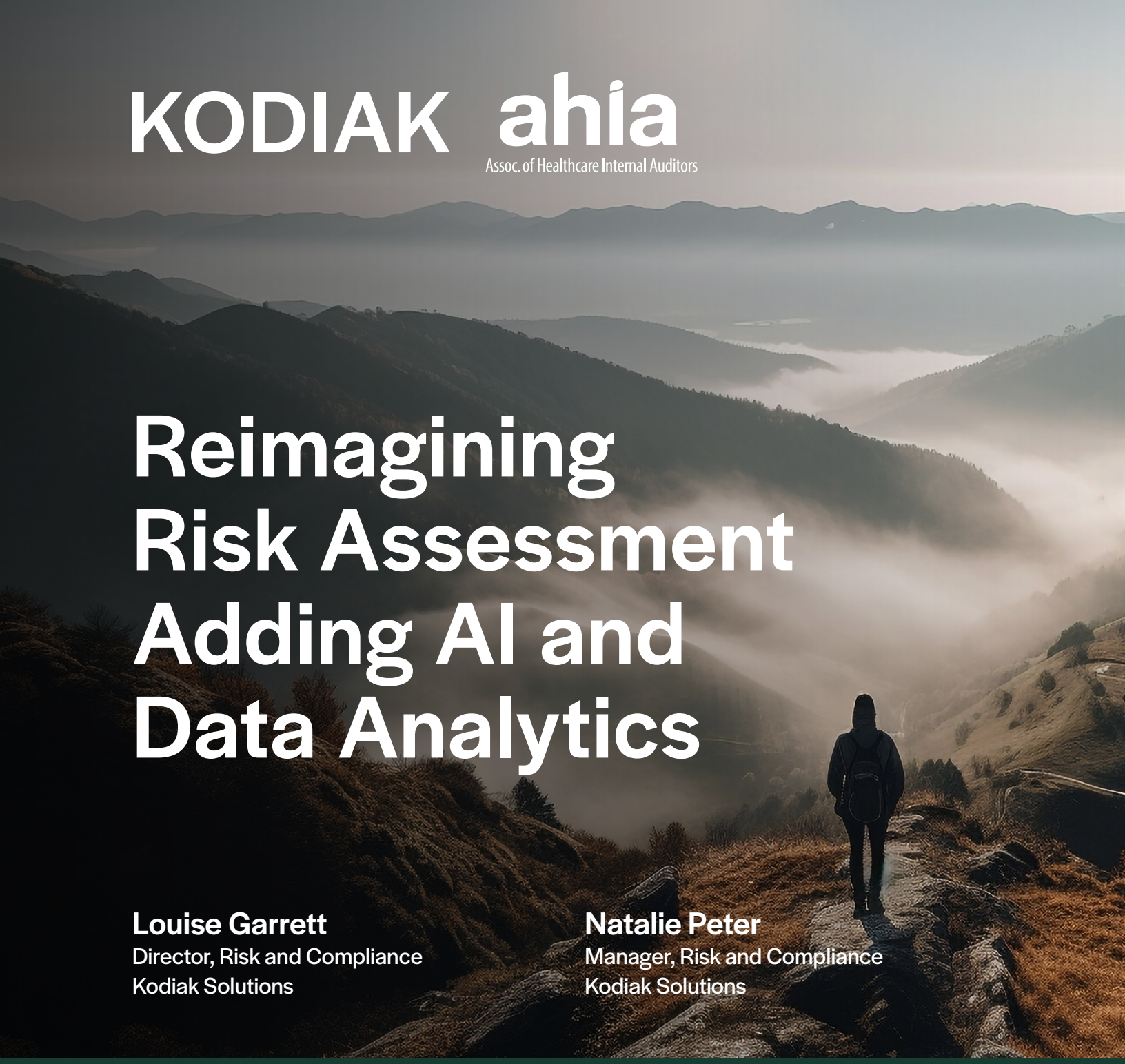

Reimagining Risk Assessment Adding AI and Data Analytics

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Introduction

The risks facing healthcare organizations evolve constantly. From new regulations to advances in care modalities and technology, the industry and associated risks are shifting faster than ever. Healthcare organizations' risk assessment processes must keep pace.

To stay ahead of this changing industry and gain the deep insights needed to protect organizations from evolving risks, internal auditor functions can benefit from a new approach to risk assessment, moving away from a traditional risk assessment process. This white paper explains this fresh approach and how it can help healthcare organizations reduce risk by optimizing out-of-date processes and leveraging technologies such as advanced data analytics and artificial intelligence.

Limitations of the traditional risk assessment

It's important to note that traditional risk assessment approaches have their benefits. The traditional risk assessment methods have supported internal auditors in identifying organizational risk for years, but they also have their limitations.

Consider a typical risk assessment process, which often includes the following steps:

- Document retrieval/review to assess risks
- In-person meetings with individuals to identify potential risks
- Surveying of individuals regarding current and potential risks
- Evaluating past issues to determine the impact on current risks
- Development of an internal audit work plan

Taking a closer look at these steps, a traditional risk assessment process' limitations become more evident. For example, the small number of people with whom auditors typically can meet with in person might limit input. It's common for organizations to limit such interviews to 15-20 key stakeholders.

Likewise, surveying individuals about risk also has its limitations. Such surveys, in fact, tend to have an average response rate of 10%.[1] Due to their limited size and scope, in-person meetings and traditional surveys have another drawback: They are subject to the biases of the small number of people completing them. That means internal auditors may not be hearing from individuals across a variety of the organizational departments and hierarchy.

Traditional risk assessment approaches aren't giving healthcare organizations a clear enough picture of their risk landscape, most likely because many of these risk assessments don't use data analytics. So, what will? It's time for a new approach.

Key steps to a fresh risk assessment approach

A reimagined risk assessment approach doesn't—and shouldn't—throw out all the steps used in a traditional risk assessment. For example, this fresh approach still includes the document retrieval and review steps used in a traditional risk assessment process. But at the heart of this new approach is data along with emerging technologies that augment internal auditors' risk assessment processes.

Following is a deeper look at the steps involved with a reimagined risk assessment process, including how it uses data analytics and AI-powered technology to cover even more risk real estate.

Step 1: Prepare and discover

The discovery phase of a reimagined risk assessment begins in the same way as a traditional one—with discussing and outlining the key objectives. This enables the internal audit department and the entire organization to have clear expectations for the risk assessment, which is essential for success. During this step, internal auditors would also gather all relevant data about the organization's chief risks, including internal and external risk factors.

One recommendation is that the internal audit department maintain an inventory of risks that are routinely updated based on feedback, risk events, and audit or compliance efforts throughout the year. As external reviews and audits are conducted and industry headlines occur, this list can be proactively maintained to facilitate the "prepare and discover" phase. Some organizations may also have a risk function and/or a Chief Risk Officer for Enterprise Risk Management (ERM) that may house this library.

Step 2: Deploy technology to gather data

Step 2 is where technology comes in. To gather and analyze the relevant data, the internal audit department deploys technology, including data analytics and AI. These technologies help internal auditors synthesize and analyze data quickly and more efficiently, resulting in meaningful analyses of complete data groups. The following are two examples of how internal auditors can deploy technology to gather data in the reimagined risk assessment process.

Using data analytics

In a risk assessment, analyzing the data can help internal auditors identify and quantify the organization's current and potential risks. Consider the following examples of what types of data internal auditors can analyze using advanced analytics to inform a healthcare organization's risk assessment:

Financial data

- By analyzing **accounts payable data**, internal audits can gather valuable insights in areas including:
  - Lost discounts
  - Cash flow issues
  - Vendor discrepancies
- Analyzing **general ledger/trial balance data** can provide information regarding:
  - Journal entry outliers
  - Incorrect entries or instances where supply chain items are marked as received but not invoiced/paid
  - Activities that warrant additional scrutiny for potential fraud

- Reviewing **payroll data** can identify:
  - Payment discrepancies
  - Potential fraud
  - Overtime management concerns

Claims data

- Organizations can analyze claims data to identify:
  - Lost revenue based on missed charges
  - Denial patterns
  - Potential compliance concerns

Charge description master

- An analysis of the organization's charge description master, along with an analysis of revenue and usage reports, provides insights into revenue charge capture issues and highlights hard code anomalies, such as:
  - Duplicate CPT codes
  - Disparate pricing
  - Zero-dollar priced items

Internal auditors can use these types of data to develop questions and present to focus groups, as outlined below, and, later in the reimagined risk assessment process, to facilitate more effective discussions during interviews.

Conducting AI-powered focus groups

Focus groups are an important data-gathering tool for internal auditors. In a reimagined risk assessment process, internal auditors can use information and insights gleaned from data analytics to inform anonymous, interactive, focus group-style feedback sessions with up to 1,000 individuals at one time. These virtual sessions, which focus on current and potential organizational risks, use an AI-powered technology tool to generate additional, related questions as the feedback session progresses, allowing for more in-depth insights. The AI will suggest polls to participants on risks identified during the feedback sessions. AI will intuitively ask follow-up questions to the audience in real time. (See sidebar on page 14 for more information on how AI can inform risk assessments.)

Internal auditors initially use data analytics to help them home in on the questions that they should include in the feedback sessions. Then, during the feedback sessions, internal auditors can "push" other questions to participants in real time based on participants' real-time answers about certain risks. This results in more of an evolving conversation than what internal auditors experience during a conventional survey approach.

This reimagined survey approach is customizable, in-depth, and agile compared with a traditional survey. It can achieve much better response rates than traditional surveys—an 85% response rate versus the typical 10% response rate seen with traditional surveys.[2]

Step 3: Perform interviews

After analyzing claims and financial data and conducting feedback sessions with large numbers of stakeholders across the organization, internal auditors can use that data to guide their next step: developing interview questions and conducting interviews with organizational leadership and other key stakeholders. In this refreshed risk assessment process, internal auditors enter these interviews with deeper organizational insights about operations and potential risk areas, thanks to the technology and processes used in Step 2.

The data gleaned in the previous step can help target the interviews with key members of the leadership team to make the most of the valuable limited time auditors have during those conversations. For example, after analyzing the organization's accounts payable data, internal auditors might identify that the organization is delaying payment to multiple vendors and not taking advantage of prompt-pay discounts. The internal audit department can then incorporate that information into its interviews with leadership to have more productive conversations about potential cash flow concerns or AP management—two high-risk areas for the organization.

Having uncovered this information through use of analytics during the risk assessment process allows the organization's management to correct these potential risk areas without the need for an audit. This frees up the internal audit department to focus on other, higher-risk areas in the audit plan that might require their attention more urgently.

Step 4: Identify the risk landscape

Once the internal audit department has performed the data analytics, feedback sessions, and interviews, the next step is to aggregate all the insights, consolidate the risks identified, and develop a road map for the organization of high-risk focus areas. It's important for internal auditors at this step to think broadly about the organization's risks versus looking at risk only through the lens of developing an internal audit plan. Rather than focusing solely on auditable processes, internal auditors can contribute more fully to mitigating organizational risks by presenting leadership with risk assessment findings that consider the organization's full-risk landscape. This process should then be revisited annually.

As an example, internal auditors can consider using tools such as heatmaps, an analytics visual tool that can show risk over time, when presenting risk findings to leadership. In addition, partnering with team members in departments including compliance and enterprise risk management can help internal auditors illustrate the full risk landscape when presenting their assessment findings to leadership. Collaborating with organizational subject matter experts from relevant departments can be an invaluable asset to internal auditors' efforts in determining related internal audit and compliance plans and developing continuous monitoring for key risk areas.

Reimagined risk assessment process yields positive results

Healthcare organizations that have adopted this fresh approach to assessing and reducing their risk exposure have found it beneficial in many ways. One major benefit is that it can identify risks more globally than a traditional approach can. This includes not only auditable risks to the organization but other internal and external risk drivers. Internal risk drivers include staff qualifications and training, employee fatigue, and task interruptions. External risk drivers include regulatory compliance, reimbursement issues, and market competition.

The reimagined risk assessment process culminates in a risk profile that auditors can share with stakeholders in areas such as compliance, revenue cycle, coding, and clinical leadership, and an internal audit work plan that is based on objective and complete datasets.

This full risk universe view is helpful for today's healthcare leaders who are facing risks on multiple fronts. Information from this reimagined risk assessment process can identify risks that internal auditors need to address and investigate further, such as through focused risk committees. More in-depth risk information can also be helpful for organizations in shaping their compliance plans.

Overall, staff members whose organizations have begun using the reimagined risk assessment process have reported feeling more "heard" and more comfortable talking about risks due to the anonymous feedback sessions. In an era where many healthcare organizations are striving to improve workforce satisfaction and reduce staff burnout,this is welcome news.

At one organization, use of data analytics and anonymous focus groups included in the reimagined risk assessment process reduced the time internal auditors typically would have spent in one-on-one meetings by half, reduced the overall hours the internal audit department spent on risk assessment overall by 15%, and increased risk coverage for the organization by 40%.

The following case studies illustrate how two organizations achieved positive results from a reimagined risk assessment process.

Case study 1: Doubling risk coverage

Who: A six-region, 13-hospital healthcare system

What: For the past seven years, the health system's internal audit department has conducted five risk-related audits per year using traditional risk assessment methods. Health system leadership, however, did not feel like they were gaining a good enough understanding of their organization's overall risk areas or that they were focusing on the greatest risks facing their organization. Leadership wanted to learn more to assist in focusing their risk efforts more successfully.

The internal audit department used the reimagined risk assessment process to gain a more comprehensive understanding of the organization's risks. Use of data analytics, interactive focus groups, and one-on-one interviews revealed deep-rooted risks across many organizational areas. The risks revealed were much greater than leadership originally suspected.

Results: After undergoing the reimagined risk assessment process, and in response to the risk assessment results, the health system's internal auditors added five more audits and a three-year-long construction audit to its audit plan. Following implementation of these new improvements, the internal auditors more than doubled the health system's risk coverage.

Case study 2: Reducing surgical site infections

Who: A large hospital inpatient surgery center

What: An inpatient surgery center wanted to better understand why its surgical site infection rates were so much higher than peer surgery centers in its region. Through use of data analytics, the hospital's internal auditors discovered a large spike in surgical site infections (SSIs) during a specific two-month period.

The auditors dug deeper into the issue, conducting AI-powered focus groups with large numbers of relevant staff members, and followed up with one-on-one interviews driven by data gathered from the focus groups. Interviews with Procurement department staff revealed that they had made changes to the skin preparation agent used in the sterilization process for surgery. Staff had switched to a less-expensive product, but they did not communicate the change to the surgical staff and clinicians.

Although the skin preparation agent was just as effective at sterilizing as the one previously used, it had a significantly longer dry-down time, meaning surgeons needed to wait longer for it to dry before beginning a surgery (cutting). That meant patients were at greater risk for infections in their incision points.

Results: Without the use of data analytics, the AI-enhanced focus groups that allowed the team to interview a much greater number of staff, including the Procurement department, or the follow-up one-on-one interviews, internal auditors might not have discovered the risks that had led to increased numbers of surgical site infections. Without the use of the reimagined risk assessment, many more patients might have been at risk for infection.

Conclusion

A dynamic risk landscape requires a dynamic approach to risk assessment. When it comes to assessing and addressing the risks that affect today's healthcare organizations, internal auditors can benefit from an approach that incorporates data analytics, technology, and a mindset that an organization's risk coverage is so much greater than what can fit on an audit plan. It's time for a reimagined risk assessment process.

Using AI to inform risk assessments

It's difficult to have any conversations around technology and healthcare lately without mentioning artificial intelligence. In the context of internal audit, internal auditors can use AI to summarize disparate pieces of data and extract meaningful information that they can use to predict the likeliness of future occurrences. This can be helpful in internal auditors' questions to identify and mitigate organizational risks.

In the case of the large virtual feedback sessions discussed earlier, AI allows internal auditors to accept the feedback from much larger numbers of individuals than a traditional focus group-type session. That is because the technology can aggregate the interviewees' input—quickly—into a summarized fashion, providing auditors real-time analysis that helps shape follow-up questions during the session. The speed of the analysis combined with the large number of interviewees allows auditors to get much deeper insights due to the speed of the analysis and the large sample size.

AI can ...

- **Evaluate** unstructured data for patterns and trends
- **Analyze** complete groups of data
- **Summarize** disparate data
- **Extract** meaningful data from multiple sources
- **Predict** future occurrences

[1] According to Kodiak Solutions data
[2] Ibid

About us

Kodiak Solutions is a leading technology and tech-enabled services company that simplifies complex business problems for healthcare provider organizations. For nearly two decades as a part of Crowe LLP, Kodiak created and developed our proprietary net revenue reporting solution, Revenue Cycle Analytics. Kodiak also provides a broad suite of software and services in support of CFOs looking for solutions in financial reporting, reimbursement, revenue cycle, risk and compliance, and unclaimed property. Kodiak's 450 employees engage with more than 1,900 hospitals and 250,000 practice-based physicians, across all 50 states, and serve as the unclaimed property outsourcing provider of choice for more than 2,000 companies. To learn more, visit our website.

Learn more

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About AHIA

The Association of Healthcare Internal Auditors (AHIA) is a network of experienced healthcare internal auditing professionals who come together to share tools, knowledge, and insight on how to assess and evaluate risk within a complex and dynamic healthcare environment. AHIA is an advocate for the profession, continuing to elevate and champion the strategic importance of healthcare internal auditors with executive management and the Board. If you have a stake in healthcare governance, risk management and internal controls, AHIA is your one-stop resource. Explore our website for more information. If you are not a member, please join our network, www.ahia.org. AHIA white papers provide healthcare internal audit practitioners with non-mandatory professional guidance on important topics. By providing healthcare specific information and education, white papers can help practitioners evaluate risks, develop priorities, and design audit approaches. It is meant to help readers understand an issue, solve a problem, or make a decision. AHIA welcomes papers aimed at beginner to expert level practitioners. This includes original content clearly related to healthcare internal auditing that does not promote commercial products or services. Interested? **Contact a member of the AHIA White Paper Subcommittee.**

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