



Leveraging AI to Evolve SIU Performance

February 2025

A Roadmap from the 4L Fraud Advisory Council Collaboration



**Fraud
Advisory
Council**
Dana Point



The 4L Fraud Advisory Council™ is a multidisciplinary group of SIU, program, and payment integrity leaders focused on identifying ways advanced artificial intelligence can be used to improve FWA detection and prevention and elevate SIU performance.

The council met in February 2025 in Dana Point, CA to explore the topic of FWA Prevention and Big Problems to Solve for SIUs. The content below is a summary of the group's insights and recommendations for AI-powered solutions.

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Big Problems to Solve in Healthcare FWA

SIUs are faced with many challenges. We asked our experts: what are the biggest problems you need to solve? These are their responses:

1. The Investigation Efficiency Crisis

SIUs are grappling with an efficiency crisis. They have a limited number of staff and investigators who need to spend their time investigating allegations of fraud and abuse. However, their staffs are forced to spend too much time on administrative tasks or false leads instead of the investigative process.

According to data from 2024 and 2025 Kisaco Research surveys, findings corroborated by 4L Fraud Advisory Council members, SIU staff typically spend between 20-30% of their time on administrative tasks. This represents a substantial operational inefficiency in the fight to detect and prevent healthcare fraud.

In addition, many SIUs struggle to get authorization to add staff, while others have had to reduce team size resulting in pressure to utilize resources as efficiently as possible.

Data Collection: Many SIUs are overwhelmed by manual data collection during the lead and triage workflow. While SIUs have access to a greater volume and complexity of data than ever before, this data often has to be manu-

ally aggregated into a usable package from disparate data sources. Most teams lack the technology to automate the data collection, confirmation, and packaging process.

Data Quality: Investigators frequently struggle with inconsistent, incomplete or inaccurate data that requires extensive manual cleansing and validation before analysis can begin. This further delays the investigative process.

Data Evaluation: Evaluating data to triage and rapidly determine appropriate investigation steps is the key initial step in the investigation process. For many SIUs, this process is manual and lacks the technology to support behavioral and pattern detection, relationship mapping, outlier analysis, and evidence organization.

Inefficient processes can result in extended investigation turnaround time, reaching up to 270 days in the private sector and up to 2.5 years for government cases. Elongated investigation times can result in higher dollar exposure, member risk and reduced recovery.

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“More investigation.
Less administration.”

- Director of Healthcare Fraud Prevention

Big Problems *(continued)*

2. The Quality vs. Quantity Lead Dilemma

SIUs today are faced with a critical dilemma—balancing the need for comprehensive fraud detection against the operational reality of limited investigative resources. SIUs search for fraud and abuse cases using a variety of sources both internally, within the health plan, and externally, from members. These search methods present a few challenges: 1) not enough leads, 2) not enough quality leads, and 3) too much noise from false positives that waste investigative resources. Far too many SIU investigators are overwhelmed by an abundance of low-quality leads.

After investing substantial time and resources conducting initial reviews, the 4L Fraud Advisory Council participants indicated that up to 80% of traditional leads do not constitute legitimate fraud and abuse cases worthy of SIU investigation. This classic needle-in-a-hay-stack scenario forces SIUs to squander limited resources on fruitless preliminary evaluations rather than focusing on high-value investigations. SIU and payment integrity leaders consistently express a strong preference for fewer leads of higher quality and agree that reducing false positives is a mandate, especially when considering the next problem.

3. AI Will Create a Tsunami of Investigations—With the Same Staff

Ironically, the challenge of SIU's not having enough resources can be exacerbated by the adoption of advanced artificial intelligence technologies. Because AI can see substantially more behaviors and patterns instantly, it can significantly increase the volume of leads and corresponding data, which places more strain on SIU teams already operating at max capacity. While AI is undoubtedly a powerful tool in detecting fraud and abuse, without complementary technology to increase process efficiency and true positive rates, AI can easily overwhelm scarce SIU resources.

“I can’t take any more leads, but I could take some more good ones.”

Director, SIU Investigations

Big Problems *(continued)*

4. Provider Integrity Insight Gaps

A final critical challenge identified by the 4L Fraud Advisory Council for SIU teams was the gap in access to accurate and timely healthcare provider data, especially integrity data. The lack of high-quality, continuously updated provider data—independent of data submitted by the providers themselves—has two significant operational ramifications: 1) it compromises the ability to see collusion and related-party interests in real-time, and 2) it slows the investigative process while investigators point-and-click their way to building a current provider profile that includes key demographic, business, directory, and integrity data.

Seeing Provider Integrity & Relationships In Real-Time

Most major fraud schemes involve multiple healthcare providers or individuals with NPI numbers posing as providers, operating in coordination. Detecting these sophisticated fraud schemes in the early stages, before significant financial losses occur and patient care is compromised, requires continuously updated insight into basic demographic and integrity data. This enables technology to 'see' parties related by common data elements in real-time. It also enables near real-time detection of providers with integrity changes or bad integrity histories that go undetected with current payer systems. These missed signals—often provider integrity changes, claims submission behavior changes, ownership transfers, or relationship patterns—represent crucial intervention opportunities that current systems fail to capture.

Seeing The Whole Provider During Investigations

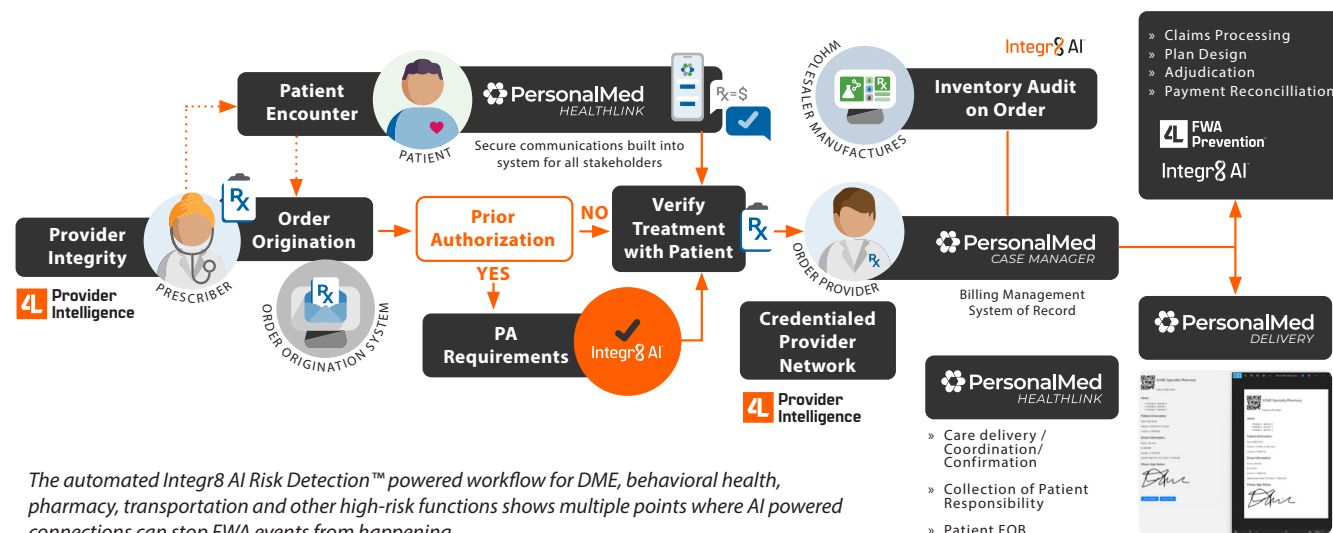
Most investigators do not have access to a current whole-provider profile during triage or the early stages of investigation. Access to this type of data is critical to understand integrity, key relationships, financial flags and other indicators that a provider, or group of providers, are suspicious. This 'continuously-credentialed' provider data is missing in almost every SIU system today.

AI's Transformative Role in Next-Generation SIU Operations

SIUs need help solving big FWA prevention problems and, advanced AI technology can play a role in next-generation operational design.

Advanced AI delivers critical operational advantages:

- Unifying fragmented data connecting provider, member, and regulatory information
- Automating data collection and evaluation, substantially reducing the administrative burden on SIU staff
- Detecting suspicious patterns, behaviors and relationships that would be very difficult to identify manually
- Delivering clear, prioritized visualizations that make complex suspicious provider behaviors immediately apparent
- Performing automated initial investigations that weed-out false positives and reduce the administrative burden that cuts into investigative capacity
- Delivering automated real-time intelligence, prevention, and patient/member confirmation functions to prevent fraudulent and abusive events before they happen (see diagram below).



The Role of Integr8 AI™ in Solving the Big Problems in Healthcare FWA

Following the rapid advance of AI technology over the past several years, it is now commonplace for FWA and Payment Integrity technology companies to develop and use AI to detect potential fraud and abuse. Artificial intelligence technology alone is not enough. In many instances, these AI solutions are fundamentally limited by their reliance on claims data-centric analysis. While this approach improves upon traditional rules-based processes, it does not significantly broaden the overall scope of FWA detection. This unidimensional view creates inherent blind spots as claims data only captures transactional information — missing the rich contextual landscape of provider behaviors, relationships, patterns, outliers and integrity indicators. Without using multi-dimensional structured and unstructured data sources and integrated historical and real-time data analysis, even sophisticated AI technology cannot detect the suspicious provider behaviors that reveal potential fraud and abuse schemes in time to prevent payments or prevent schemes from accelerating.

Claims Do Not Commit Fraud, Providers Do.

4L Data Intelligence takes a fundamentally different approach. Instead of concentrating solely on transactions, our patented provider-centric strategy focuses on the person creating the fraud. This approach starts by gathering comprehensive data on every provider continuously – we call this Know Your Provider (KYP):

- Integrity
- Behavior
- Relationships
- Demographics

We use this comprehensive data to continuously keep pace with the dynamic nature of provider behaviors, relationships and changes to their integrity status that can signal potential fraud and abuse.

The strategic advantage emerges when this KYP data integrates with patented AI engineered for operational threat detection. Integr8 AI Risk Detection™ is the only technology that delivers this transformative combination.

“Your analysis is only as good as your data and its timeliness.”

- Vice President, Compliance & SIU

The Role of Integr8 AI™ *(continued)*

Integr8 AI Risk Detection™ Transforms FWA Prevention by Enabling SIUs to:

- Dramatically reduce administrative burden by automating data collection and evaluation tasks
- Significantly increase investigator productivity with an intuitive interface, presenting comprehensive provider intelligence for rapid review and decision making
- Shift resources from low-value administrative work to high-impact investigation
- Accelerate case turnaround times, minimizing financial exposure and potential member harm
- Enhance lead accuracy by analyzing each claim in the full context of all claims, provider claims history, peer comparisons, and relationship networks
- Prioritize high-quality leads by dollar exposure and fraud probability, reducing the “needle in a haystack” inefficiency
- Deliver investigation-ready pre-case packages with evidence of suspicious provider activities, relationships, and patterns
- Enable proactive fraud prevention through continuous real-time monitoring of all Know Your Provider data
- Identify early-stage fraud schemes by correlating multiple risk factors (like ownership changes and billing pattern shifts) before major losses occur
- Move fraud detection capabilities up stream in the claims workflow to enable pre-payment interventions rather than post-payment recovery efforts.

The 4L Fraud Advisory Council’s message was clear: SIUs need advanced AI technology to fight today’s growing AI-powered increases in fraudulent and abusive billing. To be effective, organizations must prioritize solutions that move beyond traditional claims data-centric analysis and are specifically engineered to utilize a provider-centric detection approach. By leveraging comprehensive provider intelligence solutions, SIUs can significantly enhance their detection capabilities, make SIU teams more efficient, and accelerate fraud and abuse prevention.

Want To Know More About Future 4L Fraud Advisory Council™ Events?

Connect with us on LinkedIn or email Greg Lyon at GLyon@4LData.com

Get In Touch

The 4L Fraud Advisory Council is a collaborative, invitation-only body made up of leaders in program and payment integrity, SIUs, and healthcare networks. These experts are united by a shared commitment to identify ways in which technology and expertise can improve the detection and prevention of fraud and abuse—an issue that robs us all of vital healthcare services, especially from the most vulnerable members of our communities. Our inaugural collaboration in Dana Point, CA provided a lot of clarity around where we need to focus the power of patented Integr8 AI Risk Detection™ technology and the concepts of continuous provider credentialing. It also helped leaders from various health plans, government, and program integrity organizations to align around common challenges that can now be solved with advanced AI technology.

My 25 years of experience in the Financial Services and Healthcare sectors as a fraud prevention executive has led me to this guiding principle, “The best way to fight fraud is to prevent it.” Continuous collaboration among program and payment integrity leaders is the best way to achieve fraud prevention.

If you, or one of your colleagues is interested in learning more about participating in the 4L Fraud Advisory Council, please contact me using the information listed below.



2026 4L Fraud Advisory Council Annual Collaboration

March 5-6, 2026 | Waldorf Astoria Resort, Dana Point, CA



A handwritten signature of Greg Lyon in black ink.

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