



PATIENT SAFETY STRATEGIES

ENHANCING PATIENT SAFETY THROUGH DATA LITERACY

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Data literacy involves the ability to read, understand, create, and effectively communicate data-driven insights. Based on a [global Qlik report](#) with insights collected from more than 1,200 C-level executives and 6,000 employees, 89 percent of C-level executives expect their team members to be able to explain how data has been used to inform their decisions, yet only 11 percent of employees are fully confident in their ability to read, analyze, and communicate data.

Health care organizations are increasingly prioritizing data literacy as a foundational workforce skill, recognizing its direct impact on patient outcomes, safety, and operational efficiency. Structured training programs and competency-based curricula equip clinical providers and administrators alike to effectively interpret, visualize, and apply data in daily decision-making. Organizations such as [HIMSS](#) and [Health Catalyst](#) emphasize the value of interactive tools—including dashboards, analytics platforms, and practical case studies—to bridge theory and practical application.

DATA LITERACY STRATEGY IN ACTION

CRICO, a medical malpractice insurance company and Candello's parent company, recently undertook a comprehensive initiative to strengthen data literacy amongst CRICO and Candello employees. During a February Medical Professional Liability Association (MPLA) webinar, CRICO CEO Mark E. Reynolds and COO Heather Riah discussed the drivers behind the organization's data literacy program and the key elements contributing to its success.

Reynolds also noted opportunities for improvement when it came to staff confidence and ability in data—"To continue providing optimal service to our insureds and the Candello

The first year of our data literacy program had the greatest impact for those beginning their data literacy journey

We divided respondents into groups based on how they rated their data skill level **before** participating in the data literacy program. And then we looked at how they rated their data literacy skills **after** participating in the program.

BEFORE

I rate my skill level as **novice or beginner**



I rate my skill level as **medium**



I rate my skill level as **proficient**



AFTER

90% of this group moved to medium or higher

71% of this group moved to proficient or advanced

19% of this group moved to advanced

N=115 survey respondents. 21 respondents rated their starting level as "advanced." Survey offered May 2024. Employees were asked to rate their data literacy skill level before and after the program on a 1-5 Likert scale.

community, we needed our staff to meet not just current business demands but the increasingly data-driven future."

Coinciding with the deployment of an enterprise-wide analytics platform and employee interest in professional development, CRICO launched a three-year data literacy initiative in 2023. The goal is for 80 percent of employees to achieve specific data literacy competencies, which are now embedded in all job descriptions to inform hiring and continuous learning.

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CRICO approached implementation by adopting the following actions and philosophies:

1. **Executive Leadership:** CEO sponsorship highlighting the strategic priority of data literacy.
2. **Cross-functional Team:** Involvement of educators, analysts, HR professionals, senior leadership, and project managers.
3. **Assessing the Situation:** Learning what success looks like by examining other entities' experiences with teaching in general and specifically data literacy. Defining the concept tailored to CRICO's needs is more effective than using off-the-shelf solutions, with the main goal being for staff to build confidence in using data in their daily work. Evaluating current skill levels and identifying gaps. Defining essential competencies in four key areas: industry-specific vocabulary, Excel, statistics, and communicating with data.
4. **Psychological Safety:** It was crucial to ensure all employees felt supported and understood that the assessments were not a performance measure or judgment. For instance, learning needs assessments were open book and could be taken multiple times to ensure comprehension.
5. **Customized Learning:** Piloting content and employing diverse modalities—such as concise online modules, lunch-and-learn sessions, individual tutoring, and dedicated learning days.

The team identified the following three components to implement:

1. **Baseline Skills:** Required for all employees in the four key areas.
2. **Intermediate Skills:** Targeted training based on job roles, open to all employees, with completion by 2025.
3. **Embedded Skills:** Integration of data literacy expectations into every job description by the end of 2025, reinforcing hiring and the professional development processes.

Given the unique nature of CRICO's work, ready-made products were not sufficiently tailored to meet the company's needs. Consequently, CRICO had to develop the majority of the program and assessments in-house. Riah emphasizes, "It required a significant amount of work, but the team's

unwavering commitment was instrumental in the program's overall success."

Reynolds and Riah highlight the following factors as critical to a program's success:

- Emphasis on psychological safety to build employee confidence.
- Offering diverse learning methods, such as virtual "Lunch and Learns" and company-designated learning days, to accommodate different learning styles.
- Active leadership prioritization and visible sponsorship of the program.
- Effective internal communication of the program and expectations.
- Ongoing quality assurance through pilot programs before deploying the assessments to the entire company.

IMPACT ON PATIENT SAFETY AND PROVIDER PROTECTION

CRICO's data literacy initiative is making the organization more effective by empowering employees across all departments—not just analysts and data experts—to confidently leverage data in collaboration with subscriber organizations such as Beth Israel Lahey Health and Mass General Brigham. This initiative is strengthening accuracy and clarity in data handling, which is expected to support efforts in mitigating malpractice claims and protecting insured providers.

Investing in data literacy fundamentally promotes informed decision-making throughout the organization, driving greater operational efficiency. Departments across CRICO have embraced this initiative, raising standards for data collection and utilization. By ensuring all decisions are data-informed, health care organizations can increase the likelihood of achieving meaningful improvements in patient safety and provider protection.

ADDITIONAL RESOURCES

Health Catalyst Article: [Healthcare Data Literacy: A Must-Have for Becoming a Data-Driven Organization](#)

Sogolytics Blog: [Importance of Data Literacy in Healthcare](#)

