

Building Advanced Analytics from the Ground Up

Background and Challenge

For an integrated healthcare delivery system in the Pacific Northwest, becoming the first live, Epic-hosted client is an accomplishment in and of itself. Building the infrastructure required to handle the influx of data is quite another. And harnessing that data and creating next-level analytics programs just two years after going live indicates true marketplace leadership.

In advancing an analytics program, the effort by this healthcare organization's newly created business intelligence team has earned a well-deserved, positive reputation—and we're delighted to have played a role along the way.

Results

- Calculated fully-costed procedures through integrating accounting and billing data and allocating expenses to revenue transactions
- Conducted primary care provider patient panel analysis
- Created patient access dashboards for high-level and drill-down metrics on provider/clinical productivity

Solution

To start, the healthcare organization had implemented Caboodle and gone live late in the year with assistance in evaluating and demonstrating the platform's capabilities. Within four months, they opted to supplement Clarity and Caboodle with a custom data warehouse outside of the hosted environment to further advance their ability to report on innovative healthcare metrics.

While leaders felt they had answered the bell on most of the organization's data needs, they were still asking how to accelerate and integrate financial and healthcare data for fully-costed procedures and clinical productivity.

The decision to go with a customized data warehouse necessitated the creation of a new business intelligence team within the finance department. Their initial focus was on high-priority descriptive analytics—specifically data visualization and integration of Epic, cost accounting, human resources, and survey data. Tegria supplemented this team with a specialization in healthcare data modeling, deep knowledge of industry standards and best practices, expertise in building sustainable development capabilities, and a knack for collaborating across internal and external stakeholders.

To begin extending the data warehouse, we first tackled clinical productivity. Our specialists collaborated with our partner's team to analyze patient panels and create patient access dashboards that provided both high-level and drill-down views of provider and clinic productivity for primary care and specialty departments.

Next, we moved on to integrating loss and general ledger data with Epic healthcare data, then created custom dashboards to report out on the costs of providing specific services.

Instead of reporting out on collective departmental costs like most of the rest of the industry, we helped report on cost at the procedure level. So, for example, instead of simply determining the financial health of the cardiac department, they could determine margins down to specific procedures, such as knee replacements. The system was now capable of allocating direct and indirect organizational expense data to the net revenue transaction level.

Outcomes

Laying this foundation for advanced analytics enabled their internal teams to become more engaged with their jobs. Instead of simply working with data, they could now understand the data and thus became confident in the data's integrity.

The brand-new BI team's immediate success helped them develop a reputation within their organization for delivering on highly complex projects. They've since assisted additional departments—managed services, quality assurance, clinical leadership—with data needs.

Our consultants provided the knowledge, ongoing advisory and technical support to build a thriving BI and predictive analytics solution throughout the organization—and a foundation for continual evolution into next-level analytics.