



WHITE PAPER

Advanced Analytics to Succeed in Value-Based Care Contracts & APMs

EXECUTIVE SUMMARY

Data and analytics are essential to succeed in a value-based care (VBC) future. Yet only one in five healthcare executives report that they fully trust their organization's data, and only 8% think they have "mature" analytics capabilities. Payers, providers, and employers need the right tools to:

- > Accurately forecast project and measure performance in value-based care models
- > Identify and predict risks in high-priority populations with the highest total cost of care and the most opportunity for care management, cost savings and quality improvement
- > Identify areas of under- and overutilization, and optimize healthcare consumption through site of service management
- > Pinpoint high-performing providers
- > Track and measure health equity data
- > Visualize and share prescriptive insights to collaborate with clinicians, care teams, and business stakeholders

Cedar Gate offers the most complete, composable, and collaborative analytics tools to support any state of VBC. The software is built to generate insights that can improve care, lower costs, create better patient experiences, and proactively manage high-need or high-risk populations. It also includes features to track, report, and act on health equity and access data to improve care delivery.



INTRODUCTION

Advanced analytics capabilities are critical for organizations that want to succeed in value-based care programs. There is no shortage of data available to healthcare providers, payers, and employers, but that information must be translated into meaningful and actionable steps toward better care. Analytics are also an essential tool for evaluating performance in risk-based models. This is particularly true as VBC programs increasingly prioritize collaborative care to better address the needs of patients and members.

In one [survey](#), only 20% of healthcare executives reported that they fully trust their organization's data, and only 8% believe their analytics capabilities are "mature." Despite those reservations, 80% believe having high-quality data is a top priority to make informed decisions. Among the top concerns are the lack of centralized access to a single analytics database and the ability to bring together data from disparate systems. In the same survey, executives reported that data scientists spend about 80% of their time cleaning up data from multiple sources in order to use it in machine learning or decision-making models. These challenges are not new and have affected healthcare analytics for years. Cedar Gate saw the barriers to providing higher quality and more cost-effective care, and created a comprehensive analytics tool for:

- > Measuring provider performance
- > Modeling contracts, benefits plans, and care episodes
- > Optimizing funds flow
- > Benchmarking performance with local, regional, and national data
- > Identifying priority populations and risks
- > Improving health equity and access to care
- > Sharing and collaborating on prescriptive insights

In this white paper we walk through some key challenges, and how Cedar Gate's Analytics tools address each one to help payers, providers, and employers optimize performance in healthcare today, and in a future where value-based care is the only viable option.

QUICK NAVIGATION GUIDE

Key Challenges

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The Challenge: Finding Analytics Tools that Surface Actionable Insights

Many healthcare software companies offer some form of analytics functionality. Many other organizations have built in-house analytics tools to handle the massive volume of data available from internal and external sources. While these tools may have limited ability to aggregate information from disparate and disconnected sources, most lack the ability to generate effective insights that will guide future care and strategic operational decisions.

ACCURATELY PROJECTING & MEASURING PERFORMANCE

The growing popularity of Medicare Advantage, and models like ACO REACH (Realizing Equity, Access, and Community Health), are shifting value-based care from incentive models centered around primary care attribution to new payment models that increase the share of risk payers and providers must bear. As risk increases, payers and providers need analytics to aggregate thousands of data points to forecast performance and profitability in the VBC alternative payment models (APMs) of the future.

The biggest barriers organizations face in modeling clinical and financial performance are the cost and expertise required to do the analysis. Accurate projections are essential to predict performance prior to entering new VBC contracts or introducing new benefits structures. But expert contract modeling often means bringing in high-cost consultants or hiring an in-house team of actuaries with the experience to perform these complex calculations.

Additionally, once organizations enter value-based care models, accurate performance insights are critical to pinpoint successes and find areas for improvement. This is especially true for healthcare organizations taking on downside risk.



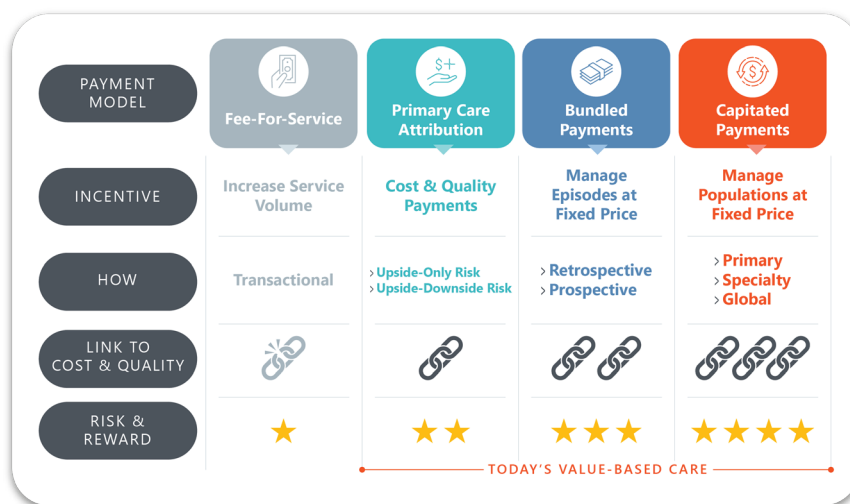
The Impact on Payers and Providers

Anyone participating in value-based and risk-based programs needs analytics software that uses all the available data to model future scenarios. Many software solutions can report on what happened in the past. Few have the ability to offer predictive and prescriptive insights that could lead to better decision making for the future.

Cedar Gate market research found that about 40% of healthcare spend in the U.S. is associated with value-based care. The majority of existing VBC spending is in upside-only risk models (primary care attribution), where providers receive bonuses or share in savings by achieving quality goals and staying under benchmark spending targets.

However, as VBC matures, analyses continue to reveal that lasting cost savings and quality improvement are only achievable when healthcare delivery organizations have both upside and downside risk. For that reason, CMS (the Centers for Medicare and Medicaid Services) is pushing alternative payment models like bundles and capitation as the payment models of the future.

One of the key barriers limiting an organization's ability to succeed in value-based care is the lack of technology to effectively predict risk and improve performance in the contract year. Accountable Care Organizations (ACOs) and those participating in other risk-based models need tools to track and measure quality and cost metrics and evaluate potential care partners to participate in collaborative care models. Without access to these insights, providers and payers are understandably averse to VBC models that could negatively affect financial performance.



The Impact on Employers

Self-funded employers, brokers, and TPAs need analytics tools that can identify cost drivers and less expensive alternatives to minimize the total cost of benefits programs and out-of-pocket costs for employees and their families.

Self-funded employers (and their employees) are experiencing the effects of healthcare and benefit costs that are rising faster than wages, putting more financial burden on the company and workers. Most employers use a mix of point solutions to manage various aspects of employee health but have little visibility into whether these solutions are helping to minimize costs. They introduce new initiatives or benefits with the intent of better controlling costs without knowing how they will impact the bottom line. Credible evaluation of these initiatives requires data – and may require complex analytical approaches – but it is necessary to determine what programs and benefits will have a positive impact on employee well-being and company finances.

The right analytics tools with appropriate predictive modeling can also help self-funded employers identify high-performing providers to bring into their network. Finding the right network improves success in lowering costs and meeting quality metrics.

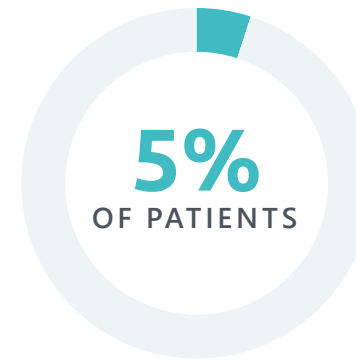
IDENTIFYING RISKS IN PRIORITY POPULATIONS

Critical to success in VBC implementation are the abilities to identify and provide appropriate care to high-risk or priority populations. Multiple studies confirm that a small number of patients account for most healthcare spending. A [Peterson-KFF analysis](#) found that just 5% of patients account for nearly half of all healthcare spending, averaging \$61,000 a year in total costs. The top 1% of patients have an average per-capita health expenditure of \$130,000 a year. By contrast, the bottom 50% of the population accounts for only 3% of all spending with average costs of just \$374 per person – and about 14% of the population has \$0 in costs during any given year.

These statistics help to explain why blanket programs aimed at improving health or lowering costs for everyone often fail to produce significant savings; they apply the same intervention to people who spend over \$100,000 a year and to those who spend less than \$400. It takes significant resources to reach hundreds or thousands of members and patients, but most of those people do not need the information and will not benefit from the most impactful cost-reduction strategies.

For providers, payers, and employers, having access to insights that identify the 5% of patients and members driving the majority of healthcare cost can achieve significant savings through targeted interventions and better care management.

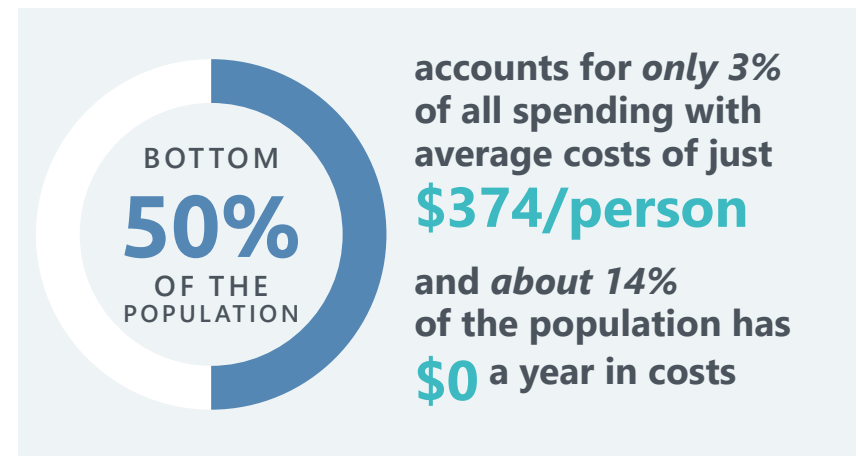
The most common method for identifying priority populations uses claims data. But many analytics tools simply evaluate and report on what happened in the past. Analytics software that only looks backwards will not help organizations predict who might be at higher risk in the future. Without predictive capabilities, healthcare providers, payers, and employers could easily overlook patients or members who need care management or other interventions. This can lead to spending that could have been mitigated or prevented entirely with forward-looking analytics tools.



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Peterson-KFF Health System Tracker, November 2021

Improving Health Equity & Access to Care

Access to care and other social determinants of health are key drivers of healthcare costs and patient outcomes. Furthermore, CMS is focused on health equity and SDoH in models like ACO REACH. Because reimbursements are increasingly tied to costs and outcomes (and in APMs like capitated payment models, payments are fixed for each member and based on risk scores) organizations increasingly need tools that can incorporate these important attributes in risk predictions, prior spending analyses, and care management.

Employers can use the same tools to create more equitable work environments. Data has the potential to remove barriers that have long been viewed as outside the scope of healthcare, but actually have a significant impact on health and well-being in general, and productivity in the workplace. For example, an employer using SDoH data to identify employees with limited access to high-quality and convenient care could use that information to expand their provider network, ensuring that access for every member in a benefits plan.

VISUALIZING & SHARING ANALYTICS INSIGHTS

As new partnerships and business models emerge to meet VBC requirements, the ability to share contextual and analytics insights is vital. Shareable analytics data augments provider performance and improves care outcomes, but many organizations still find it difficult to exchange this information in a meaningful way (both internally and externally).

Many highly qualified data scientists who design analytics software do not understand or prioritize user experience. For organizations that want to make data more transparent and available to everyone – including providers, administrators, care partners, employer benefits advisors, and others – the ability to access meaningful information in a simple visual format is essential.



The Solution

Cedar Gate offers one of the most advanced analytics tools available for healthcare organizations today with our Value-Based Care Analytics software. It is built to facilitate the unique needs of organizations participating in or considering participation in advanced VBC models (such as MSSP or ACO REACH), while still meeting the requirements of organizations participating in traditional fee-for-service or primary care attribution programs.

Our Healthcare Benefits Analytics software gives employers self-service capabilities to design, deploy, and report on efficient and cost-effective benefits plans. That includes in-depth tools to identify and manage various solutions that advance health and wellness, lower total cost of care, and improve care quality for employees and members.

Both the Value-Based Care Analytics and Healthcare Benefits Analytics solutions seamlessly connect with your existing payment technology, care management, and population health point solutions to provide better insights into organizational data.

ROBUST TOOLS FOR PROJECTING & MEASURING PERFORMANCE

Many payers, providers, and employers have access to extensive information on patients, members, and financial performance from sources such as:

- > Claims and eligibility
- > CMS
- > Electronic health records
- > Health surveys and questionnaires
- > Lab and imaging services
- > Point solutions from third-party vendors
- > Government, for example, SDoH or Area Deprivation Index (ADI)

Each of these data sources comes from an organization with its own data management system. There are no data storage and data sharing standards, so integrating data from these sources requires extensive cleansing and normalization before the information is usable for analytics purposes.

At the heart of Cedar Gate's comprehensive software platform is our proprietary enterprise data management system. It pulls data from more than 50 disparate sources into a singular "data lake," cleanses the data, and normalizes it for use by the applications in our platform. Data flows directly to our Value-Based Care Analytics and Healthcare Benefits Analytics tools in a standardized format that allows users to access all the available information with no manual work required on the part of IT teams or data scientists.

Once organizations have access to clean, normalized data, they can perform a wide variety of advanced analyses to improve care, minimize risk, plan for the future, and enhance financial viability in various VBC models.

Tools for Payers, Providers, and Self-Funded Employers

Cedar Gate's Value-Based Care Analytics and Healthcare Benefits Analytics applications generate meaningful insights that enhance performance and limit financial risk in VBC programs.



Measuring Performance



Modeling Contracts, Benefits Plans, & Episodes of Care



Identifying Priority Populations



Measuring ROI

Measuring Performance

- > **Benchmarking:** Cedar Gate's analytics tools draw from our database of 15 million member lives to provide broad benchmarking capabilities for both regional and national data. With claims data from thousands of commercial payers, employers get the breadth and depth of information required to compare current benefits plans and potential changes and determine how they stack up.
- > **Cost and utilization comparisons:** As payers and providers embark on new VBC models, one key to success is the ability to compare performance against other healthcare delivery organizations. Cedar Gate offers reference-based pricing to compare allowed amounts to Medicare-based reimbursements, and plan design modeling to determine how specific plan changes might impact utilization rates. Payers and providers can use this information to identify top performers in the area and forge VBC partnerships.
- > **Integrated provider cost and quality reporting:** Cost and quality are inextricably linked in value-based care models, and healthcare delivery organizations need the ability to report on how each impacts plan performance. Cedar Gate offers a fully integrated solution that incorporates HEDIS measures and data from multiple sources to create a complete care picture and helps predict what interventions can have the most impact moving forward.
- > **Provider performance assessments:** Conduct quantitative performance assessments for individual providers or groups based on attributed populations using multiple data sources. Analyze provider-attributed metrics that include cost efficiency, appropriateness of care, gaps in care, and quality of care. Identify and contract with high-performing partners for optimal performance in VBC models.

Modeling Contracts, Benefits Plans, & Episodes of Care

- > **Benefits modeling:** Self-funded employers want to know how and when to introduce new plan parameters that can reduce costs and improve care quality. Cedar Gate Healthcare Benefits Analytics offers the predictive capability to view scenarios for different benefits offerings and choose the ones most beneficial to your organization.
- > **Bundles modeling:** Payers and providers can create and model various bundles definitions for episodes of care prior to entering bundled payment contracts. These predictive insights help minimize financial risk and assess provider performance based on unique regional pricing and service dynamics to find the right partners in collaborative care arrangements.
- > **Contract modeling:** The ability to project success under various assumptions about risk, patient populations, and provider performance is a key component of VBC – and the inability to do so is a key reason many organizations are hesitant to enter into these agreements. Many organizations turn to high-cost consultants or hire internal actuarial experts to perform these calculations. Cedar Gate's Analytics tools provide this functionality, allowing clients to enter into VBC contracts with confidence that they can succeed.

Identifying Priority Populations

- > **Cohort management:** Identify, specify, and maintain member-based cohorts in the Cohort Module available in both the Healthcare Benefits Analytics and Value-Based Care Analytics applications. Segment by populations to monitor and focus on specific members who present the best clinical and financial opportunities for improvement. Users can also compare cohorts, or benchmark against any populations you choose, to develop a deeper understanding of cohorts' performance.
- > **Population-focused care:** Payers and providers can zero in on the specific needs of populations and individuals with care gap reporting, condition-specific filters, and customizable risk triggers. Compare performance for participants vs non-participants in your VBC models to determine program effectiveness and identify care opportunities.
- > **Population risk assessments (HCC):** Success in capitation APMs requires accurate hierarchical condition category (HCC) coding to determine risk. Inaccurate or missed HCCs lead to lower reimbursement amounts per member per month (PMPM). Cedar Gate Value-Based Care Analytics integrates information from multiple data sources to provide a near-real-time assessment of individual patient and population risk profiles.

Measuring ROI

- > **Financial viability and funds flow:** Combining Cedar Gate's analytics tools with our payment technology tools gives organizations the ability to model near-real-time financial and funds flow analysis for various VBC scenarios. These tools can guide benefits decisions to ensure maximum profitability and minimal costs before entering VBC agreements and throughout the duration of any VBC program.
- > **Point solution analysis:** Most organizations use a range of point solutions to lower costs and improve care and member experiences. Figuring out which solutions provide value to patients, payers, providers, and employers is difficult. Cedar Gate can help organizations analyze various solutions in a current tech stack, using benchmark comparisons with proprietary information from our database, to determine which ones get you closer to your VBC goals.

DESCRIPTIVE, PREDICTIVE & PRESCRIPTIVE ANALYTICS

Success in VBC requires:

- > Steering patients to high-performing providers
- > Enhancing sites of service and referral patterns
- > Managing formularies and complex conditions
- > Addressing both under- and over-utilization of healthcare services

The analytics software you use should facilitate all these steps to optimize cost and quality in your value-based care arrangements or to optimize benefits for your members or employees. Cedar Gate Analytics supports these activities with three levels of analytics complexity: Descriptive, Predictive, and Prescriptive Analytics.

Descriptive Analytics

Most analytics tools use historical data to identify patterns, which can help payers, providers, and employers see what happened within a patient or member population. Cedar Gate Analytics provides advanced access to descriptive analytics by utilizing multiple data sources to examine historical trends and patterns. The primary data source for our analytics software is claims data, but we also have built-in APIs for more than 35 external data sources (and the ability to set up custom APIs with almost any data source).

Users can easily filter by region, eligibility category, or various health and cost metrics, such as:

- > High needs populations, including those with uncontrolled chronic health conditions
- > High utilizers for various healthcare services, such as ER visits
- > Highest-cost members (on a per-member, per-month basis)
- > ADI percentiles based on potential area disadvantages
- > SDoH attributes – such as race, gender, or disability – when this information is available

Dashboards make it easy to visualize all the relevant information about your patient or member population, and drill down on any data point for more detailed information. Display and share the information in visually appealing reports and create scheduled reports for key stakeholders who need critical information to improve care.

Cedar Gate Analytics has built-in APIs for more than
35 EXTERNAL DATA SOURCES



Predictive Analytics

Cedar Gate Analytics software uses advanced artificial intelligence (AI) and machine learning (ML) algorithms to predict future events or behaviors based on the available information in claims and other historical data. These valuable insights can inform future care by identifying members at risk for:

- > Avoidable acute care episodes (such as ER visits and hospitalizations)
- > Chronic disease
- > High health care expenditures
- > Medication non-adherence
- > Gaps in chronic condition care
- > Gaps in preventive care



Actionable Insights

Effective analytics tools take all the descriptive and predictive information from the platform and translate it into actionable insights and tasks to address with patients and members. Cedar Gate Analytics software makes it easy to share this information with care team members through existing point solutions in your tech stack, or by adding our fully integrated Care Management module to your platform.

For example, providers and payers can use Value-Based Care Analytics to generate a list of patients who meet the criteria for screening mammograms but are unlikely to get one. They can share the list with members of a care team, who can do additional outreach to help patients schedule mammograms. Self-funded employers can use Healthcare Benefits Analytics to generate a list of people who are unlikely to get a flu vaccine and target these individuals with educational materials on how easy it is to get a flu shot or set up an on-site clinic to maximize access.

These prescriptive analytics tools also make it easier to identify opportunities for care improvement and financial success in value-based care models. Our Value-Based Care Analytics software is designed to provide comparison tools to find high-performing partners for your care network. It can also model various scenarios to identify the value-based care contract parameters that give your organization the best chance of success.

AI, MACHINE LEARNING, AND THE FUTURE OF HEALTHCARE ANALYTICS

As artificial intelligence (AI) technology matures, there is a lot of anticipation around how it can improve healthcare. Cedar Gate is committed to improving analytics capabilities, which includes innovation through AI and machine learning (ML) tools.

Cedar Gate's Analytics platform includes a growing library of AI models trained on existing data to uncover insights, forecast performance, and predict risk. We also incorporate AI into our data collection, enrichment, and management processes. AI has the power to:



Improve Predictive Capabilities

Accurate predictive AI models are an essential tool for value-based care success. Cedar Gate's models help predict high-cost utilization, patient engagement in managing chronic conditions or participating in preventive care and screenings, risk of developing chronic diseases, medication adherence, and more. Our predictive tools also facilitate forecasting and trend analysis to improve operational efficiency. With these tools, providers and care teams can allocate attention and resources where they are most needed to succeed in any risk-based model.



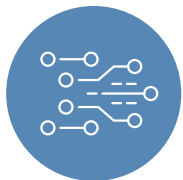
Augment Care Providers' Capabilities

AI tools are one piece of the care puzzle, but they will not replace the actions of providers and care teams. Our models are designed to augment care providers' capabilities by providing data-driven clinical decision support at the point of care, and identifying the "next best action" based on patient needs, and clinical and financial performance goals. We believe AI won't replace humans in healthcare, but it should help them be more efficient and effective. It also improves our ability to be proactive, versus waiting for a patient to get sick before the healthcare system can intervene.



Streamline Patient Outreach and Education

Every patient has different needs based on their unique medical history, social determinants of health, care plans, and more. The AI tools we have available today, and the ones in development, improve payer, provider, and employer capabilities to personalize medicine at scale.



Improve Data Quality and Accuracy

Our ability to help clients offer the best care at the lowest cost centers around having access to clean, normalized data. Our AI capabilities continue to enhance data collection, accuracy, and consistency, ensuring unfettered access to the most comprehensive dataset available.

VISUAL & SHAREABLE INSIGHTS

A key priority in building Cedar Gate's advanced Analytics software is the ability to visualize data in meaningful ways and share that information broadly – both within a healthcare delivery organization, and with health plan sponsors who are involved in collaborative efforts to improve outcomes and optimize cost.

Cedar Gate Analytics includes intuitive dashboards that each user can customize to display the most important information for fast and effective decision making, whether they are in a clinical or administrative role. Drill down on any dashboard display to get more details on the data available through our industry-leading [Enterprise Data Management](#) module. Choose from an extensive library of existing reports and adjust them based on unique needs or create custom dashboards and reports that provide insights into your populations, patients, members, financials, and more.

Automatically share interactive dashboard views and reports so every member of a team – from providers and payers to high-level executives and care partners – can participate in strategic discussions, share insights, and improve operational capabilities. Plus, the software highlights opportunities to improve care, and recommends specific actions that will help organizations achieve the targets specified in value-based delivery agreements.

Tailored User Experiences

Enhanced user management capabilities in our analytics offerings empower clients to configure role-based access to specific capabilities, data tables, and dashboards. This allows organizations to create custom versions of Value-Based Care Analytics and Healthcare Benefits Analytics for stakeholders and partners that need to be able to leverage focused analytics capabilities, but do not require access to the full application and dataset. This feature supports increased collaboration between disparate and interdisciplinary stakeholders that is required to succeed in value-based care models.

Executive Analytics

Keeping high-level executives in the loop is an essential part of organizational success. But many executives don't have the time or expertise to dig into the details of your datasets to find the information they need to make strategic business decisions. Our Executive Analytics module makes it easy to share the right information with the right people through easy-to-digest visuals and high-level analyses.

Executive Analytics pulls data from the same source as our analytics software, and includes:

- > Automated distribution to create and send key reports on your schedule
- > Customizable dashboard views for trends, comparisons, and organization specific KPIs
- > Role-based access for optimal control over who sees what information

Business Benefits

Payers, providers, and self-funded employers today find themselves at a convergence of data from multiple point solution vendors and sources. Effective analytics tools are at the heart of any successful value-based care model, but organizations must be able to turn that information into actionable insights that lead to better care.

Cedar Gate's advanced analytics tools give users what they need to quickly consolidate critical information from every available data source for insights to evaluate past performance and predict future performance. It provides a key advantage to all constituents for collaborative care planning and strategic execution.

THE MOST ADVANCED ANALYTICS TOOLS FOR VBC-FOCUSED PAYERS, PROVIDERS, AND EMPLOYERS

Cedar Gate Technologies offers the most advanced analytics tools for all types of healthcare delivery organizations engaged in efforts to lower costs and improve care quality. The Value-Based Care Analytics and Healthcare Benefits Analytics solutions are built on Cedar Gate's industry-leading proprietary Enterprise Data Management system that cleanses, enriches, and normalizes data from dozens of sources into a single data lake. Cedar Gate Analytics can be used independently or as part of a complete solution composed to meet the specific value-based care requirements of your organization.

Contact us to discuss how we can help you improve your analytics capabilities today.

203.930.5500 | learnmore@cedargate.com | www.cedargate.com

