

Analytics

Demystifying healthcare data

Critical takeaways for unlocking
the power of data-driven insights



Looking past the numbers

The healthcare industry continues to generate data from various sources at an astounding rate. But what are healthcare organizations doing with this data? Currently, the United States spends more than \$4 trillion on healthcare each year—more than any other country.² Despite these expenditures, the nation ranks last overall in healthcare performance, as well as in most categories, including access to care, administrative efficiency, equity and healthcare outcomes, compared to other high-income peer countries.³

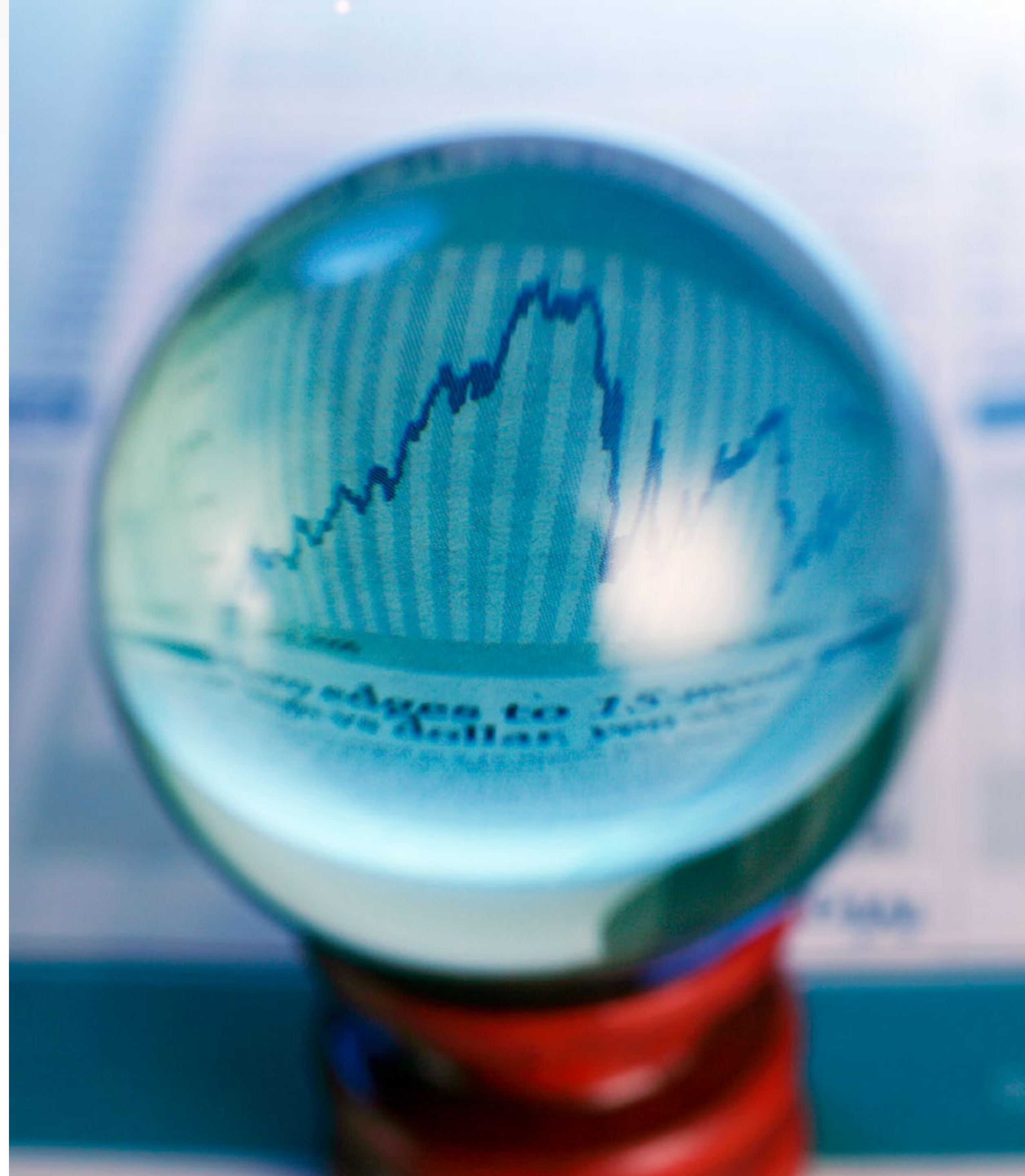
It's no secret enacting real change in our healthcare industry will require organizations to spend smarter, reduce administrative burden, make policy changes, strengthen social services and improve access to care.

In 2018, the industry generated approximately 30% of the world's data volume, with the annual growth rate expected to reach 36% by 2025.¹



However, organizations often struggle to make the changes necessary to achieve these business and care outcomes. This points to a growing need for impactful, data-driven decision-making to enhance organizational performance across all areas and programs. But how do organizations overcome current data challenges to improve outcomes?

Gainwell Technologies has been partnering with state Medicaid agencies and healthcare organizations for 50+ years, and we believe the answer lies in demystifying the data surrounding healthcare and social programs.





With clear and actionable data, organizations can make informed, insight-driven decisions that drive positive change. Advanced analytic solutions can help you leverage the power of your data to get ahead of the curve and proactively deliver informed, customized solutions to better serve your populations.

While the benefits of using data to improve health outcomes are well documented, not knowing where to start is a hurdle many organizations face. Highlighted here are a few key principles and several best practices to help you break through the data fog to get started on your analytics journey.

Foundational principles of healthcare analytics

The terminology “data analytics” encompasses a broad spectrum of data evaluation methods, strategies and tools. Understanding analytics requires looking beyond the numbers to successfully move from a reactive to a proactive environment for positive change. There are four main types of advanced analytics organizations should know and understand. While each serves a valuable purpose with varying levels of analytic maturity, organizations can determine which approach is the best fit for specific business needs at different stages.

1. Descriptive analytics tell you what happened in the past or what is currently happening and should be used as the foundation of an analytics program. Examples include total cost of care, total number of patients seen in a month or number of patients prescribed a certain medication. While this information is valuable, it can sometimes miss the larger context behind the data.

2. Diagnostic analytics take descriptive analytics a step further by analyzing the “why” of the data. This process allows a client to drill down into their data and make connections between data elements. For example, an organization might be able to correlate their rising operational costs with a similar rise in utilization management. Diagnostic analytics could help determine whether the rise in cost and/or readmission rates can be attributed to a particular hospital or readmission reason, informing targeted improvement efforts. Understanding the diagnosis can help organizations implement treatment plans to address specific, costly situations.



3. Predictive analytics build off diagnostic analytics and incorporate feedback loops from historical patterns through machine learning (ML) and artificial intelligence (AI) algorithms. Predictive analytics can help organizations anticipate nascent trends and step in proactively. This is a crucial analytics tool for understanding data patterns and planning for the future. For example, by modeling the progression of a pre-diabetic person into full type-2 diabetes, AI models can identify members who would benefit from proactive outreach to try to prevent the disease progression.



4. Prescriptive analytics surpass predictive analytics by answering, “what should be done?” as you look to advance your future vision. Prescriptive analytics help you assess the outcome of a prior intervention and determine if such an intervention is applicable to the current situation. For example, if provider educational programs have resulted in an 8% cost decrease in the past, prescriptive analytics can help you evaluate the value versus cost of a similar intervention to address a new trend identified by diagnostic analytics.

Four Types of Business Analytics

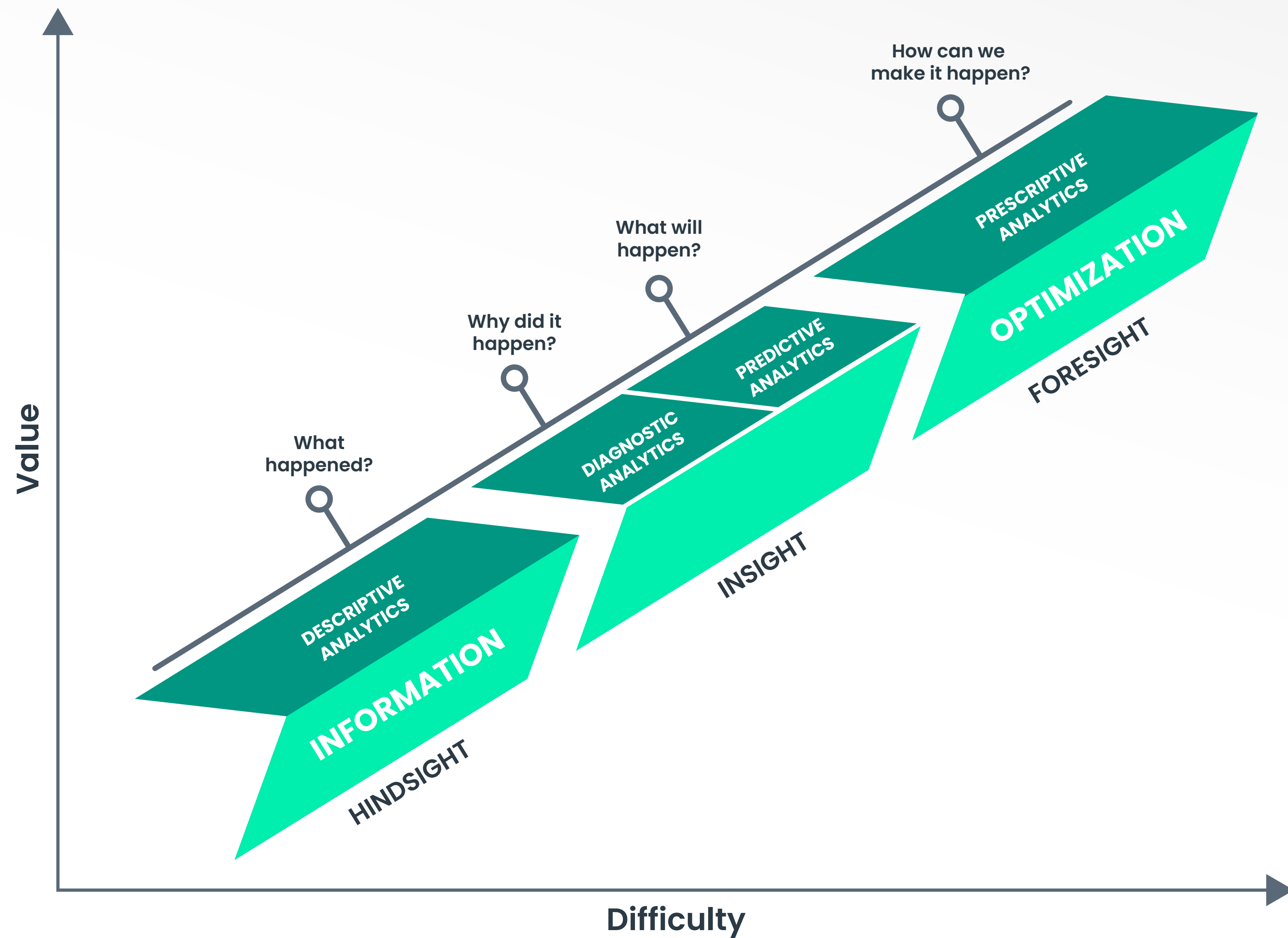


Chart based on
Gartner Business Analytics
(March 2012).



Unlocking the transformational power of advanced analytics

When creating a data-fueled organization that improves care coordination and program performance, our clients have found the greatest success when implementing analytics that allow for evidence-based decision-making. Organizations should look to their solutions for comprehensive diagnostic capabilities to track, trend, benchmark and forecast with predictive modeling options. These insights can help inform policy and program changes to improve outcomes holistically.



For maximum effectiveness, organizations should look for the following key capabilities:

- **Benchmarking:** The ability to see how your organization compares to industry standards or competitors.
- **Drill-down capabilities:** The ability to obtain a granular view of the data at the click of a mouse.
- **Risk profiling:** A form of predictive analytics that helps identify populations at a higher risk of a particular event. Using ML, this function could help organizations determine where to focus their efforts and intervene proactively.
- **AI and ML:** Automates the extraction of important insights from data using advanced algorithms that improve and develop over time to accurately predict important outcomes.





Impactful analytic tools for value-based care models

Now that we've reviewed the types of analytics available and features to consider, it's important to note not all analytics are created equally, and not all data analytic dashboards are equipped to meet your needs in all four areas. By not choosing a solution that provides comprehensive predictive and prescriptive analytics capabilities, you could be missing key opportunities to maximize return on investment and make a difference in the lives of those you serve.

Further, the healthcare industry and payment landscape are changing rapidly. Over the last several years, both the Centers for Medicare and Medicaid Services (CMS) and private insurers have begun to shift toward a value-based care model, and this trend is expected to continue. As payment and care delivery models change, so must the approach to data and analytics to help drive actionable insights. It is simply not enough to understand "what" is happening, which is why many organizations fail in their efforts to implement a dashboard that demystifies the data for intelligent, actionable foresight.



Key takeaways for investing in advanced analytics

While data is largely available, not knowing where to start can prevent organizations from harnessing its power. Many organizations lack the resources to design and implement a data solution, much less digest the data and keep up with emerging trends. Analytics can be a significant investment; it's important to fully evaluate your organization's needs and choose a data analytics solution that meets them.

1. Determine the types of data available.

Some solutions analyze only an organization's internal data, while others leverage the power of additional data, including third-party data sources, geospatial information, benchmarking and more.

2. Evaluate data visualization capabilities and outputs.

The best data dashboards display analyzed data in digestible formats. With modern technology, you should be able to access different types of data without sifting through extensive spreadsheets or hiring a trained data scientist to decipher your own data.

3. Consider out-of-the-box solutions.

Prevent a lengthy design, development and implementation (DDI) that requires extensive input and ongoing maintenance.

4. Keep up with emerging trends and new technology.

Cloud-based analytics solutions are flexible by design, making them best equipped to keep up with new insights and trends, while eliminating the need to maintain costly on-premise storage solutions.

5. Unlock data-driven insights.

Avoid data solutions that provide only aggregated data explaining “what” is happening (i.e., descriptive analytics) but do not provide any insight into “why.” It’s important for organizations to be able to draw realistic correlations and see how changes being implemented affect the data in real-time.

6. Evaluate pricing models that fit your organization’s unique needs.

Consider choosing a solution that allows you to pay for only what you need and use, with opportunities for expansion at a later date, should your organization need it.





Calculating return on insight

Calculating the return on your data analytics investment can be a complex process, with multiple layers to unfold. Analyzing healthcare data has far-reaching implications that can benefit multiple areas of the care journey, from cost to quality. Defining clear objectives in integrating advanced analytics into your organization is key to achieving results.

Imagine a data dashboard that easily allows you to view prescribing patterns of opioids. You could view which providers are prescribing opioids at an increased rate, patients co-prescribed other controlled substances, opioid-related emergency room visits, Geographic Information System (GIS) location-based information and other valuable data points to help an organization

identify and evaluate gaps in care and opportunities for reform. One organization that implemented a similar dashboard reduced the prescribing of new opioids by 44% over 3 years, while implementing counseling and alternative treatment options for their patients.⁴

This is one example of how a data dashboard can affect real change and result in an overwhelming return on investment—beyond an organization's bottom line. The implementation opportunities are limitless, from addressing utilization management, to reducing fraud, waste and abuse, to determining which geographical areas are in need of additional providers.



Choosing advanced analytics for today and the future

Today, absolutely everything we do requires data, which serves as empirical evidence to back up a claim. While choosing the right data analytics solution may seem daunting, the most important takeaway is to get started. Organizations that are not seeking to make data-driven, analytics-backed decisions risk falling further behind the competition and, more importantly, losing out on valuable opportunities to make a powerful difference in our healthcare system. The benefits of harnessing the power of data in business are well established. It's time for healthcare to catch up to the curve.



Demystify healthcare data

With decades of experience in the Medicaid industry, we are uniquely qualified as your partner in the delivery of analytics solutions to help you best serve your communities. We understand clients require deep analytics capabilities, coupled with cost-effective technology strategies like cloud deployment, to gain ground against rising medical costs.

Gainwell's Analytics solutions are built upon a multi-tenant, cloud-based platform delivering scalable comprehensive Enterprise Data Warehouse capabilities, such as master data management, business intelligence and transformational analytics offerings that range

from basic reporting to advanced predictive modeling. With our Advanced Analytics solutions, we empower our clients with the tools and resources to digest monumental amounts of data while forecasting and modeling new scenarios with our Claims and Encounters, Pharmacy Analytics, Provider Analytics and Whole Person Analytics capabilities.

As you begin the journey to demystifying your data, we are here to help you build a powerful foundation to decipher meaningful insights—ones that allow your organization to make informed, data-driven decisions for improved productivity and outcomes.

Authors:

Rajesh Sharma

Vice President, General Manager for Systems Integration, Data Analytics and Interoperability Product Offerings

Jason Fackler

Senior Director, Analytics Product and Solutions

Sources

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² https://www.statista.com/topics/6701/health-expenditures-in-the-us/#topicHeader_wrapper

³ <https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly>

⁴ <https://hbr.org/2018/11/how-geisinger-health-system-reduced-opioid-prescriptions>

Visit us

to learn more about Gainwell's Analytics solutions.

Gainwell is the leading provider of **technology, services and solutions** that are vital to the administration and operations of health and human services programs. With more than 50 years of proven experience, Gainwell has a reputation for service excellence and unparalleled industry expertise. We offer clients scalable and flexible solutions for their most complex challenges. These capabilities make us a trusted partner for organizations seeking reliability, innovation and transformational outcomes. Learn more at gainwelltechnologies.com.

