Ask yourself:
How can I collect the money that I am owed for the services I provide?
How can I get paid faster?
I am spending too much time chasing payers.
How can I get paid more efficiently?
Do I have the information I need to effectively manage my practice?

Health Care Business Intelligence: Turning Data into Decisions

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Executive Summary

Do you have easy access to the right information to make confident, informed decisions about your health care organization?

Health care executives typically rely on practice management metrics such as days in accounts receivable (DAR) and denial and claims payment rates in order to control costs and make business decisions. But for most practices, the data extracted from these metrics cannot fully inform critical decisions such as where to open new sites, how to help physicians improve productivity, and how to improve revenue.

There is a solution that streamlines the task of gathering critical data across the health care enterprise and turns it into readily accessible, actionable information. **Health care business intelligence (HCBI)** is a package of software and services that offers clarity on and control of the vast amount of data needed to successfully run a medical organization. The critical advantage of HCBI solutions is the deep insight they provide into a wide array of data from the entire organization, including the ability to “slice and dice” data at every level, along with comparisons to targets and benchmarks. HCBI solutions perform well beyond what current practice management systems typically offer as part of their built-in reporting.

Aberdeen Group reported that health care providers who adopted business intelligence technologies realized up to a 9% increase in profit margin with improved productivity and reduced costs.

Specifically, health care business intelligence provides reliable, easily accessible information with clear options for actions to: (1) increase revenue, (2) enable growth and expansion, (3) improve productivity, and (4) manage coding patterns and compliance.
<table>
<thead>
<tr>
<th>Typical Practice Data Available</th>
<th>Health Care Business Intelligence (HCBI) Solution</th>
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<tbody>
<tr>
<td>▶ Limited visibility into drivers of operational performance</td>
<td>▶ Interactive data analysis with instant clarity into a wide range of data points such as coding patterns, payer mix, geographic footprint, and days in accounts receivable (DAR)</td>
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<tr>
<td>▶ Time-consuming queries that can take minutes, hours, or even days</td>
<td>▶ Actionable information available in seconds ▶ Enables a radically shortened decision support cycle</td>
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<tr>
<td>▶ Cannot “slice and dice” data to view information at different levels</td>
<td>▶ Ability to analyze and manipulate data at macro- and micro-levels across the enterprise</td>
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<tr>
<td>▶ High level of effort necessary to extract needed information</td>
<td>▶ Comes out-of-the-box ready to help with the questions you care about most</td>
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<tr>
<td>▶ Data exists in separate silos and is difficult to aggregate</td>
<td>▶ Single source of information widely available while maintaining appropriate access control</td>
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<tr>
<td>▶ Information is difficult to share in visual format with appropriate stakeholders</td>
<td>▶ Visual, secure, reliable information that’s easy to interpret and share with stakeholders</td>
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<td>▶ May not be able to predict and plan for future trends</td>
<td>▶ Allows “what if” modeling of revenue ▶ Reduces risk by minimizing surprises</td>
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<td>▶ Questionable data consistency and reliability</td>
<td>▶ Reliable data that can be cross-validated and easily traced to source documents</td>
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<td>▶ May not have access to practice, peer-to-peer, or national benchmarks</td>
<td>▶ Consistent comparison with benchmarks within specialty, practice, or geography</td>
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<tr>
<td>▶ Difficulty in monitoring impact of new initiatives</td>
<td>▶ Easy monitoring of new initiatives</td>
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Do You Have the Knowledge You Need to Make the Right Decisions?

To manage your health care organization, you oversee a wide range of data that is growing more complex, diffused, and difficult to synthesize. Traditionally, health care organizations have invested in information systems such as practice management and electronic medical records software and services to help streamline and oversee operations. These solutions have been successful in addressing certain challenges. For example, practice management systems can improve back office operations, such as days in accounts receivable and self pay collections. Electronic medical records systems have become a baseline requirement for improving clinical performance and reporting.

While these solutions serve an important purpose, they cannot alone meet some of the critical needs of your organization:

- Enterprise-wide insight into every level of your organization’s performance;
- Benchmarking of key indicators, such as provider efficiency;
- Secure, reliable, and quick access to a wide range of data that is easy to interpret; and
- Comprehensive, actionable information that is readily available to all appropriate personnel.

Health care business intelligence (HCBI) can address these needs for your organization. Traditional data analysis methods, while effective in addressing some areas, lack the data interactivity, speed, and simplicity that health care organizations need for effective management and growth.

For example, consider the health care information data you can currently access. Which of the following questions can you answer now?

- What are your tools for tracking and analyzing revenue performance? What is your process for distributing financial, billing, and revenue cycle information throughout the organization?
- How do you evaluate opportunities and strategically plan for growth? How do you measure the success of growth initiatives?
- Can you quantify the financial impact of varying productivity levels among providers? How do you use industry and practice benchmarks in your performance analysis?
- How do you measure the efficiency of your coding training and the coding behavior for new providers?

Even if you devoted extra staff resources to tackling these questions using your current data, chances are you wouldn’t be able to get enough actionable information to make informed decisions. What’s more, stakeholders in your organization may not fully trust the accuracy and reliability of data currently available, no matter how it’s gathered or presented. This makes it hard to garner widespread support for initiatives to improve performance.

What health care executives need, particularly in difficult economic times and an ever-changing health care environment, is a reliable method of analyzing and leveraging information across the enterprise, using a seamless, user-friendly interface to bring that information to appropriate stakeholders when it’s needed.
A Simple Solution

Business intelligence (BI) refers to the process of using a software application to leverage all of the data collected within a company’s systems and then converting that data to information through interactive decision support.

BI is more than corporate reporting. Decision-makers use BI to identify opportunities for process improvement, benchmark against industry standards, and monitor the impact of new initiatives. In fact, according to Gartner Analysts, organizations that used BI tools outperformed their peers by 30% in terms of productivity in 2011.

Health care has been slower than other industries to adopt BI. However, according to a report by Business-Week Research Services, more health care executives are now realizing that “data is at the center of informed and precise decision-making that can ensure their organizations’ future.”

Specifically, HCBI can help health care organizations:

1. Increase revenue;
2. Enable smart expansion and growth;
3. Improve productivity and efficiency; and
4. Manage coding patterns and compliance.

In fact, a recent study from Aberdeen Group reported that health care providers who adopted business intelligence technologies realized up to a 9% increase in profit margin with improved productivity and reduced costs.

Case Study: HCBI Goes Beyond Practice Management Data

Pediatric Subspecialty Faculty (PSF) of Children’s Hospital of Orange County, CA had excellent financials compared with most health care organizations. Over the past four years, days in accounts receivable had declined from a high of 120 days to 31 days and 99.4% of claims were resolved within 180 days. But numerous providers in multiple locations and practice situations made data hard to gather. And data was difficult to extract from the practice management system.

In the last two years, however, the collection rate is up 2%. Jeffrey Harpster, Director of Business Services, gives much of the credit for his success to Anodyne Health’s business intelligence solutions—Anodyne Analytics and Anodyne Dashboards. His group has been using the innovative solutions for more than two years and he says the results are impressive.

Anodyne Health’s ability to provide information from the macro level to the micro level, and at every point in between, is what makes it so successful. Working with 140 providers, grouped into 18 divisions, in 42 locations, Harpster says this type of functionality is key to PSF’s success and a function that practice management systems just can’t provide. “I am able to look at the macros of each of the divisions, and then drill down to the micro level. Our goal is to identify outliers.”

He uses the information to produce a scorecard—for each division and each provider. He says, “We are able to drill down by financial class, payer, amount billed, amount collected, days outstanding, as well as a host of other measures to identify outliers where opportunities exist—then compare this information against both established benchmarks and prior period performance. This allows us to locate the source of the problem and reallocate our resources to address the problem.”
Aberdeen Group also reported that best-in-class health care organizations achieved a 15 percent increase in patient satisfaction scores by using business intelligence tools.

Real Questions, Real Answers

Here are four common issues that health care organizations can effectively address with HCBI tools and technology.

How Do We Increase Revenue?

Consider how your organization currently addresses revenue enhancement. For example:

- How much effort is needed to track and analyze your revenue performance?
- What are your key revenue initiatives and how do you measure progress towards achieving these initiatives?
- Why are some providers not profitable?
- How do you predict and plan for payer reimbursement cuts?
- How would small changes to your top revenue drivers impact cash flow?
- How do you set goals and monitor payment for services rendered in each of your specialties?

Without the right data, your potential to drive incremental revenue isn’t as strong as it could be. With your current data, you probably lack the ability to manage and forecast revenue across the practice. It might be unclear what you are being paid for services provided or even if you are receiving payments on certain procedures at all, and you could be missing important opportunities for revenue growth. For example, do you know what percentage of denials at your practice are patient- or provider-related versus payer-related? According to one report, a small percentage of claims are unresolved because the payer simply does not follow through on reimbursement.
For most practices, it is too time-consuming to gather and analyze this kind of information, along with practice and benchmark data, when it comes to reimbursement rates. Your organization could be missing opportunities to improve revenue with higher reimbursement levels. What’s more, your providers likely feel overworked, but revenue is declining. Some executives might even be considering selling their practice to a hospital or health system.

**Case Study: Correcting an undercoding issue**

Wing Choi is the CFO of Mission Internal Medical Group in Mission Viejo, California, a practice with more than 70 providers in 12 locations who bill more than 1,000 different CPT codes. After they implemented Anodyne Analytics, Choi says he can benchmark coding levels in order to show providers how they compare to others in the practice, specialty, or region. If the coding level is below normal, coders review the provider’s files to determine if higher codes are warranted. “If providers are performing below where they have indicated they expect to perform, they want us to let them know about it,” Choi says. “We don’t tell them how to practice; we just show them the problem in black and white. Even a small modification in behavior can make a big difference.” For example, training that Mission Internal provided to a physician on how to code and document more accurately brought one physician a $40,000 per year income boost, says Choi.

**Case Study: Evaluating an e-prescribing opportunity**

In terms of revenue enhancement, Wing Choi wanted to know whether the practice could encourage enough e-prescribing to qualify for a 2% e-prescribing incentive that was available through Medicare Part B. With HCBI in place, he was able to review two months of charge activity and calculate the numerator and denominator per the criteria established by the Centers for Medicare and Medicaid Services to identify the correct ratio for each provider. He discovered that the practice had the potential to earn an additional $340,000 a year on $17 million in Part B payments. The practice then used that information to mobilize the entire organization to optimize e-prescribing opportunities.

**Case Study: Better data = better revenue**

Medical Associates of Central Virginia, Inc. of Lynchburg, Virginia, is a large multi-specialty group. Bill Ashe, Practice Administrator, values their HCBI’s system ability to seamlessly integrate with data from his practice management system. “I was really impressed with how easily and completely Anodyne Health was able to integrate data from my practice management system into Excel,” says Ashe. This integration allows practices to quickly and easily analyze revenue cycle performance and includes the ability to drill down to the patient, claim, or line-item level. It also makes the extraction of the data very easy. It helps uncover new opportunities for cash generation, supports the enforcement of payer compliance, exposes denial rate trends, highlights coding patterns, expands the visibility of physician productivity, and helps lower accounts receivable.
HCBI can provide easy access to critical information such as production, coding, payer mix, referral patterns, DAR, and denials. With accurate, actionable data, your organization can achieve and exceed revenue targets. You can accurately forecast and manage revenue, get clarity into which services and payers drive revenue, see increased provider productivity, and operate profitably or sell the business at a profit.

How Do We Grow and Expand Our Organization?

You face these key questions and challenges for your organization around growth and expansion:

- What is your growth strategy? What is your process for evaluating growth opportunities?
- What readily available do you have to support decisions about expansion?
- What factors influence the comprehensiveness, accuracy, and interpretation of that data?
- What is your process for evaluating the success of growth initiatives?
- How do you distribute those results in your organization?

When facing opportunities (or pressure) to grow and expand, your organization is likely missing key information to make informed decisions. For example, how easy is it to call up provider, payer, geographic, and referral patterns across different providers or specialties? Can you easily analyze data so it paints a clear picture of where new equipment, staff, or sites might have the most impact on revenue? You may be creating inefficiency and re-work with repetitive or manual data extraction. Worse, decisions made with incomplete data can influence patient perception of your practice, undermine growth ROI, and put your organization at too much financial risk.

HCBI equips you with the information you need to make reliable decisions about growth. You can quickly see critical growth drivers such as production metrics, reimbursement rates, billing performance,
Case Study: Making an intelligent decision about a new satellite office

All Florida Orthopaedic Associates is a large orthopaedic practice in St. Petersburg, Florida. Arthur Nadelman, Executive Director, was deciding whether the practice should open a satellite office. So he brought in consultants to help guide the decision-making process. However, it quickly became clear that the types of data the consultants needed to make their calculations would take him weeks, if not months, to pull out of his practice management system. He decided to implement an HCBI solution, which helped him effectively evaluate his patient base so he could make an educated decision about the new site. Plus, generating the data needed to make the decision took just a few hours, instead of weeks or months, and he didn’t need to continue to use resources on the consultant.

and referral patterns. You can immediately re-analyze results by patient ZIP code, provider, place of service, payer, and referrals. What’s more, you can drill down to line-item detail as needed. And you can easily visualize your current status against key goals, with the ability to forecast and plan for future growth.

How Do We Improve Productivity and Efficiency?

Consider how your organization currently addresses productivity and efficiency. For example:

- If your physicians are compensated based on productivity, whose productivity data are they able to see?
- How do you forecast clinical productivity? How long does it take to pull together forecasts?
- What is the financial impact of varying productivity levels among providers?
- How do you use industry and practice benchmarks in your performance analysis?
- How do you measure and improve operational productivity? For example, what is your process for lowering the denial rate?

With your current system, it might be almost impossible to extract reliable productivity, referral, denial, DAR, and collections performance data across the enterprise. You may experience underperformance, a depressed revenue stream, and misdirected effort and inefficiency. What’s more, you may be unable to forecast incoming revenue, and lack the ability to plan and manage physician productivity.

Health care business intelligence gives you prompt access to revenue cycle information, such as productivity levels among providers. What’s more, data can be analyzed by metrics such as individual, practice, region, or specialty, along with easy comparisons to established best practices for issues such as charge lag, coding patterns, and collections. In addition, with an HCBI solution you can quickly share information such as clinical productivity and denial patterns with appropriate personnel for training and support.
Case Study: Getting buy-in for a new compensation model to boost productivity

Dave Devalk, CEO of Reno Heart Physicians in Reno, Nevada, runs a practice with a high volume of Medicare patients. But a falling reimbursement rate was worrisome. Plus, there was a 50% spread of work RVUs from the top producer in the practice to the bottom. Devalk recognized that ramping up productivity could offset decreasing reimbursement—and he knew that switching to an “at-risk” compensation model was the way to accomplish that goal. However, getting provider buy-in was crucial. To do so, Devalk needed data, but unfortunately, the necessary data just wasn’t available. “While it was theoretically possible to get the basic information that we needed from our practice management system, it just spit out numbers. The information wasn’t useable,” Devalk points out.

Devalk credits Anodyne Health’s business intelligence solutions—Anodyne Analytics and Anodyne Dashboard—with making the change much easier, and more successful, than he thought it could be. In the first year, moving to an at-risk compensation model helped the practice realize a 15% increase in productivity (an additional $600,000 in revenue). What’s more, the new HCBI allows individual providers to compare performance on almost any measure to the performance of the group. Plus, Anodyne Dashboard is flexible enough to factor in specifics such as the impact on revenue of a provider being assigned to a high-volume versus low-volume hospital. As a result, the doctors involved perceive the at-risk compensation model as fairer and more acceptable.

Case Study: Actionable information drives revenue improvement for multiple practices

Sandra Hudson, Director of Decision Support for Saint Thomas Physician Services in Nashville, Tennessee, is responsible for providing each of the medical practices that Saint Thomas manages with a “scorecard” of key metrics that are indicators of the practices’ financial health. Before implementing Anodyne Health’s business intelligence solutions, the raw data was provided in different formats, and the quality of the data provided was unreliable. But Anodyne Health, Hudson says, “allows us to serve clients in a much more timely fashion, the quality of the data is excellent, and we can identify potential revenue sources for our clients—those are huge advantages.”

Hudson reports that Anodyne Health’s contract analysis functionality produces valuable information for each client. “We can look at each provider, by payer, by CPT code, and by just about any other metric and identify outliers— much like what doctors do when they review lab reports.” As an example, she points to the fact that conducting a contract analysis of major payers resulted in identifying missed revenue opportunities for several practices. With that data, clients were able to address the issues that the reports identified within their practices—with the data necessary to change behavior. Hudson says clients find this information very helpful in motivating improvement, all the more so since it is displayed not just in numbers, but also in charts and other visual aids.
How Do We Effectively Manage Coding Patterns and Compliance?

Key coding and compliance questions and challenges for your organization:

- How do you currently analyze your coding patterns? How long does it take?
- How do you benchmark provider coding patterns against peers, industry standards, and/or practice targets?
- How do you compare coding patterns over time?
- How do you measure the efficacy of coding training?
- How is coding and benchmark data distributed throughout your organization?
- What is your process for ensuring consistent and compliant coding behavior when new providers join the organization?

With limited coding information currently available in your practice, you lack insight into critical information such as coding trends, utilization, patterns, and peer-to-peer comparisons. You likely can’t see the impact of coding training. And you can’t compare coding patterns to national benchmarks. You could be missing opportunities to increase revenue with coding training, and could be inappropriately allocating staff for auditing purposes. What’s more, you could be at risk for failed audits, financial penalties, and even legal consequences.

HCBI offers visibility into coding trends, including utilization, patterns, and peer-to-peer comparisons. You can compare coding patterns to peers, industry benchmarks, and practice targets. You can produce summary and detailed coding information tailored to key stakeholders. You can easily produce patient

Case Study: Using HCBI to raise coding levels

At Heritage Medical Associates, Inc. in Nashville, Tennessee, HCBI provides quick access to the data needed for successful decision-making. That data is presented in a way that allows physicians to visually track their progress toward making the practice even more successful. “It tracks income, utilization, patients per day, reimbursement per code by payer—you name it,” says Kenny Caldwell, CFO. “We used to spend hours, days, crunching the numbers. Now we can run reports in seconds.” Plus, he adds, using an HCBI solution has allowed the group to avoid adding additional resources to its accounting and business offices.

Providing benchmarked data in graph form helped to better explain to physicians that they were coding below the national averages. For Heritage, this “raised a red flag,” says Caldwell. So he asked their coding specialists to review patient records and found that there was more than adequate documentation already in place to justify higher coding levels.

Using their HCBI solution, Caldwell was able to demonstrate to practice physicians the positive impact that billing at the correct level would have on revenue. He could then demonstrate a resulting impact on income. In short, “With Anodyne Health, we are able to anticipate trends much more quickly and make adjustments accordingly,” he says.
lists, trend coding patterns over time, and improve your billing accuracy. You can better target compliance training, allocate staff more efficiently for auditing purposes, and reduce the financial and regulatory coding compliance risk to the practice and to providers.

Making the Transition to Health Care Business Intelligence

More and more health care leaders are realizing that health care business intelligence makes the most sense in an increasingly complex data environment. Health care business intelligence streamlines the process of digesting and synthesizing complex information, bringing actionable data to individuals in the organization that need it, when they need it, to improve performance.

Get the Information You Need to Reach Peak Performance

The Anodyne AnalyticsSM service is a leading HCBI solution. It gives health care organizations immediate visibility into critical information about the practice. Anodyne Analytics offers:

- **Interactivity**—Easily access your organization’s data from multiple sources
- **Accessibility**—Cloud-based access means your data is available anywhere you have a broadband connection

Three Myths About Health Care Business Intelligence

**Myth #1: Our organization already has what it needs to make informed decisions.**

**Reality:** Most data currently available in health care organizations does not get converted to actionable information. Therefore, strategic analysis to support informed decisions is highly limited. There may be a lot of data available, but no coordinated, easy approach to aggregating and reporting on performance across the enterprise. What’s more, it is often impossible to reliably compare performance against goals and benchmarks, and to refine information to highlight important details. You need data that is easily accessible, trusted, and comprehensive.

**Myth #2: Our organization can’t afford a new software product.**

**Reality:** Without the right information, you could be putting your organization at significant financial risk. The right information not only provides clear direction, it provides a simple mechanism for monitoring initiatives and predicting and planning for upcoming revenue changes. With enhanced revenue and improved productivity month in and month out, the ROI on HCBI solutions can easily justify the cost. Some HCBI systems even include an ROI calculator as well as guidance from industry experts as part of their solution.

**Myth #3: We can’t handle the disruption of implementing a new system.**

**Reality:** While there is always an initial adjustment to new software and services, health care business intelligence solutions should easily integrate with your current practice management systems. In fact, your HCBI vendor should be able to align their data with what you already have in place. What’s more, you can choose an HCBI solution that requires minimal technical expertise to operate and maintain, giving you fast and secure access to all your data, across your entire enterprise, with rich graphical visualizations. HCBI solutions can greatly improve your productivity while allowing others to get the data they need without dependence on a single department.
Security—Role-based security that ensures users have appropriate data access

Speed—Lightning-fast time-to-insight queries and Excel extracts

Simplicity—Point-and-click user interfaces that are easy to master

Precision—Ability to focus in on your desired data, down to the line-item level

Integration—Ability to share findings in Excel with full export capability and instant pivot-table generation

Relevance—Tailored to produce actionable information across the entire revenue cycle

The Anodyne AnalyticsSM service allows you to analyze all of your organization’s data through specially designed views, identifying and examining critical trends and patterns. The Anodyne DashboardSM goes a step further by presenting data at a higher, more summarized level. With monthly reports relevant to provider and business performance, you receive timely results and performance trends to ensure organization-wide alignment with key goals.

To learn more, please visit anodynehealth.com or call 770.777.3500.
Citations


