



# BIG DATA

## FOR BIG INSIGHTS

BY JILL BRIGGS

**DATA MINING.**  
**ANALYTICS.**  
**BUSINESS INTELLIGENCE.**  
**STATISTICAL ANALYSIS.**  
**DATA VISUALIZATION.**  
**PREDICTIVE ANALYTICS.**  
**BIG DATA.**

For many, the mere thought of these terms makes your head spin! Most physicians chose medicine to treat patients, not to analyze endless lists of burdensome business data. But fear not, the value of these practices far outweighs the intimidating first steps.

To begin this journey into big data, it is important to first understand what it truly is. Big data at its core is large amounts of data in various formats, structured and unstructured. Big data is a part of every business, whether it's analyzed or not. Daily transactions and activities happen even when no one is watching and leave behind a trail of data waiting to be monitored. The most important part of big data isn't how much a practice has but what is done with it. You should be looking for timely and actionable information that will impact your practice.

There are a few tools to assist anyone beginning an adventure with data analysis. The choices are varied and have many options to meet various needs using various levels of skill sets. The most accessible is typically Microsoft Excel. Microsoft Excel includes options to import data from many sources. Evaluate the RIS and EHR options for data output. Every encounter with a patient, every exam scheduled and result finalized with the RIS and EHR leaves a trail of data ripe for analysis. Bringing the data gathered within these systems together in Excel can help to unlock a treasure trove of data details.



Within Microsoft Excel lies one of the most powerful tools to manage and review large, unwieldy data sets—the Pivot Table. Pivot Tables are designed to take cumbersome data and display it in easier-to-digest pieces with the ability to rotate the data and shift the point of view quickly and easily. Hundreds of thousands of rows can be simplified with a few clicks to summarize trends and make the data useful to practice analysis and decision making.

Business Analytic tools are another option for managing data. These do require additional software and training beyond what most have readily accessible but are worth the investment to a business ready to delve into the depths of data mining. These tools will help to organize the data elements and create easy-to-absorb data visualizations as the data is digested. Some may think of this in terms of a dashboard that will allow you to see real-time data for key metrics as you direct. A few popular options in the Business Analytics arena are Power BI (Microsoft), SAP Business Objects, and Tableau.

Worth mentioning is also the option of leveraging your Revenue Cycle Management (RCM) team. Whether billing is done in-house or outsourced, the billing department will have access to large amounts of data. The practice management system used to generate and produce claims and patient statements houses data on all elements of the practice ranging from patient demographics and procedure trends to referring physicians and payor performance. This data belongs to the practice and should be leveraged to maximize knowledge and make sound decisions. Utilize the skill set of the specialists you employ who understand the data intimately to produce consumable reports to help tell the story of your practice. If you haven't started down this road before, start by reviewing a few standard reports and see what questions you have. Ask them and allow the team of experts to guide you through the details to fill in the rest of the picture.

The next logical question for a practice to ask is, what data should I be looking at? There are many aspects of a practice that can be reviewed. Start by determining which part of the practice to focus on. Let's explore a few options to help as you get started on your journey in big data.

## MONITORING PATIENT DATA

Patients are the heart and soul of every practice. Ensuring the patient experience is good should be front and center for all practice administrators. Utilize the registration

information to evaluate trends in patient exams. Is there a particular modality that is utilized higher on a certain day of the week? Or a certain time of day? Is the schedule routinely at capacity? These might be indicators of the need to evaluate equipment and staffing needs. Watch these elements over time to see how trends can help dictate which direction to grow your business. Consider evaluating turnaround times. Measure the time between a patient scheduling an exam and the actual exam, from the exam to the final report. These elements help to streamline your practice. Ensuring a quick turnaround time will be key to keeping patient satisfaction up and have patients return for future services.

## REFERRING PHYSICIANS

Turnaround time also influences the referring physicians. They may be more willing to continue to send their patients if they know the results will be available in a reasonable amount of time. Tracking the referral patterns from referring physicians can help you notice a trend where there might be dissatisfaction with your service. Consider comparison reporting for referring physicians to determine which physician referrals are increasing or decreasing from year to year. If Dr. ABC has decreased, perhaps he is on vacation; but if not, you now have a reason to give him a call. Ask probing questions to find out if there are opportunities for you to serve them and their patients better. This reporting method gives you a list of the peers you may want to connect with, both from increases and decreases. Consider surveying the increases as well to find new opportunities to grow beyond what the practice currently offers.

## RCM PROCESSES

The RCM side of your practice offers many data metrics to analyze for a better understanding of your practice. A few critical KPIs (key performance indicators) to track are Days in Accounts Receivable (AR), Receipt per Relative Value Unit (RVU), Payor Mix, Modality Mix, and AR over 120 days. For those new to the idea of data mining, the question may be burning as to why? If I am getting paid, why should I care what these elements say? It is an excellent question and begs a few questions in return. What if you could be paid 10% more? What if you could find a weakness in your process to obtain receipts faster and at a lower cost? What if you could find a trend and correct a problem before it becomes a problem? Would you do it?





## Assuming you are like most of us and said yes to the previous question, let's look at a few RCM metrics to help you find possible opportunities.

Review the payor mix of your practice. Keep tabs on which payor represents the largest portion of your practice. Trend the list over time. If a change happens, can you pinpoint why? Likely culprits are large employers changing insurance plans during open enrollment. When this happens, review your contracts. Ensure you are still participating in keeping patient referrals remaining steady.

Once you identify a change in payor mix, the next question to explore is the rates you are being paid. If a large portion of the patient base changed insurance, it is important to know what you are collecting from this insurance. Review to ensure that any contracts are being reimbursed appropriately. Take the opportunity to evaluate the performance of your payors and open negotiations with any that could use improvement. This is an important practice to maintain on a routine basis.

Utilize the RCM reporting to manage the performance of your billing team. Days in AR is a fantastic indicator of how long it takes to resolve a claim. This one metric can give you a glimpse at how effective your processes are and how healthy the practice is. If the number is rising, it is indicative of a problem worth investigating. Consider

reviewing your denial rate and denial resolution results. This area of analysis will help you see how processes are working to capture the hard-to-get receipts and if the process is effective.

Leadership expert John Maxwell wrote, "Once you find your why, you will be able to find your way." We all want to continue growing our practice, our business, and our impact on positive patient outcomes. Consider this question, why is data analysis so important for practices, like yours and mine, striving to continue to grow? It will show the roadmap for the way to success! There is always truth in the data. Grab a good roadmap and take the first step to growth for your practice. Let data lead the way!



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