Data has never been more important in health care. It’s also never been more difficult to use. Thankfully, a solution is hiding in plain sight: data visualization. Here are six ways visualization will transform the way physician compensation works in your organization for the better, for both administrators and physicians.

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In a health care marketplace facing serious physician shortages (and in which nearly two-thirds of physicians work in small and independent practices rather than large health groups), hospitals, medical groups, and other major health care organizations need every advantage they can get to recruit and retain physicians.

Physician compensation is naturally one of the most potent tools in any recruiting/retention toolkit; but for most groups, it’s also a process that’s prone to error. It’s often riddled with inconsistency and the cause of a great deal of confusion, uncertainty and even dissatisfaction. According to Today’s Hospitalist, one-third (34%) of physicians have seen responsibilities added to their job for which they are not compensated, and one in five (19%) say they “work too many hours for too little pay.”

Making the right compensation decisions hinges on access to good information. Yet many health care facilities today struggle to answer even basic questions in this area. It’s not unusual for medical groups to be unable even to accurately count the number of providers or compensation plans in their system. Most providers acknowledge that even getting an accurate provider count isn’t practical with the current processes and technologies.

For the organizations that can answer these questions, they admit that they rarely feel confident in the assessment. Data requests, specifically within physician compensation, often takes multiple people hours or days to compile, and are done so manually. Recent studies have validated what we are already aware of: most health care data (85% on average) is trapped – unused and unusable – in what TechRepublic calls a “data dungeon.” The data may be stuck in disparate information systems that won’t talk to each other. Or the data may be recorded without the “structure” or context that makes it possible to be indexed, analyzed, or even found when needed.

The absence of good, accessible, usable data makes physician relationships and budget issues much more fraught and unsure than they need to be. That leaves organizations routinely making major decisions based on such uncertain or incorrect estimations. In turn, that forces medical groups to overuse valuable resources on mundane tasks instead of focusing on strategic or clinical outcomes.

But how can a health care organization free its data riches from the dungeon, and transform them into a wealth of easily, quickly, reliably usable information?

Data visualization.

This technology creates a central, certain source of truth composed of contextualized information that’s presented to users in a way that can be consumed visually and instantly parsed into reports (Figure 1).

Fundamentally, it enables organizations, administrators and physicians to answer all of the questions they can’t answer today. It simplifies decision-making around compensation – and reduces the risks associated with uncertainty. This paper will explore how data visualization works.
Visualization makes data accessible and usable.

Visualization works by creating a reliable, consistent source of truth.

Uncertainty is a decision killer. The only way to put uncertainty to rest is to establish a central, trusted repository of reliable information.

That task is complicated when a lot of disparate systems – each with separate inputs, many based on manual data entry that’s prone to error – must be cobbled together to get even a rough estimate.

Data that’s visualized through configurable dashboards pulls in data directly from users as well as bi-directional integrations with other information systems. It eliminates uncertainty before it can poison the decision-making process.

Through that source, users can quickly find answers to every pertinent question.

With visualization, the next time a distraught or angry physician beats down the door with a statement like, “I think I was paid wrong” or “I don’t understand why this is happening,” administrators won’t have to guess, equivocate or plead ignorance. With a reliable source of truth, they simply look at their dashboard – perhaps clicking to drill-down into a detail or two – and find the answer.

Of course, it may be that our hypothetical physician never needs to visit the administrator in the first place. A central source of reliable truth feeds the same high quality information to all users; physicians can simply log into their own dashboard and see the answer to their queries reported to them (Figure 2).
Here’s also where the “visualization” aspect stands out: it allows users to slice-and-dice the data resident in the system to answer custom questions and see the answer presented in a clear number, chart or graph.

So if our physician didn’t make her desired bonus on this paycheck, she could simply ask the system, “If I want a bonus of X dollars, what do I need to do?”

For example, she can see how she tracks relative to a goal or benchmark to which one component of her compensation may be tied, e.g. "I’m falling short on the number patients being seen, so I better get these procedures scheduled."

Meanwhile, the organization or medical group can suddenly start making strategic decisions based on good information. How does it attract and retain the best quality providers? How can it optimize costs, run lean, and stay competitive? Visualization lays it all out, in real-time.

For example, administrators can filter to see all of the detail corresponding to one particular physician and then use that information to re-negotiate contractual terms. Manually, that’s a couple of days of work. With a data visualization system, it’s immediate.

But even once answered, what do you do with that information? Data visualized in easy-to-consume formats can inform smarter, better decisions. We’ll look at “how” in the next section.
Visualization makes data informative and interactive.

Remove uncertainties that are resident in today’s compensation process.

Compensation is complicated. Visualization, unlike a solution such as Excel, can present intricate details in a graphic, chart or illustration that translates raw data into contextualized information — and in a way that is genuinely, easily interactive.

That is, users can look at information at a summary level or, with the simplest click behavior, dive into much more detailed information.

This is more profound that it may sound at first. Turning data into information requires a strategy for doing so — something that fewer than half of hospitals have in place, according to a 2015 Deloitte survey. Meanwhile, only 15% have reached the point of using their data predictively. This is a subtle example of the data dungeon mentioned earlier: medical groups may be rich in data, but survey after survey finds they struggle to extract optimal meaning and use from it. But the benefits are clear, as can be seen from the chart above.

Analyze, slice-and-dice, and correlate data points.

By contrast, visualization shifts the focus of the information system (1) from collecting data to deciphering it and (2) from user-based analysis to automated, intelligent and predictive analysis. In fact, renders the bulk of analysis and reporting into single-click review through a visualization dashboard. We’ll look at the impact of that shift — from time savings to better physician recruitment and retention — in the next section.

Visualization makes the data user-friendly and actionable.

Respect the users’ valuable time: let the system do the work.

If there’s one area where many medical group administrators and physicians may find themselves feeling constantly impoverished, it’s time.

It takes so much sheer time for health care professionals to do their jobs well and meet their obligations. For example, many administrators will push out a report to physicians and other providers about 30 days after they wrap up the books; only then can the providers see why they got paid what they got paid. And that’s a quick turnaround in a manual world.

That’s because so much labor goes into procuring and producing such reports. It’s also because so much time gets sucked into other mandated activities. For example, half of medical groups surveyed by The
Physicians Foundation indicated that ICD-10 regulations alone would “cause severe administrative problems.”

Already, a fifth of self-identified “hospitalists” believe that their workload worsens patient satisfaction, according to a study from the National Institutes of Health, and one in ten believe it worsens the overall quality of care. Those numbers are, thankfully, a minority, but they speak to health care staff being worked to the edge, and they suggest that anywhere from one-in-ten to one-in-five patients have a compromised experience as a result.

Data visualization can remediate part of that pain by returning valuable hours to staff and enabling them to be more effective employees.

Enhance compensation as a retention tool: Prompt and reward performance.

Indeed, data visualization can support employees in providing truly excellent service. “Your employees can reach superstar status only if their lower-order needs are met: the paycheck is good and working conditions are fair,” notes Judy Bee, an editorial board member of Medical Economics.

But the organization must first identify which providers should be rewarded – and which may require further support to hit their goals. It’s often a struggle to connect these dots. For example, providers might be compensated at 1 percentile, but their productivity could fall at various percentiles, and health care organization can end up overpaying for average or even lackluster performance.

With data visualization, it’s possible to track that relationship at a granular level of detail and even to trigger action alerts and audits based on benchmarking metrics. That can, for example, identify when fair market value issues could arise and save medical groups from overpayments. When was the last time a physician came back and said, “I think you gave me too much”?

On the flip side, they will likely not shy from inquiring about “too little.” An Advisory Board survey of 3,711 physicians found that fewer than half – only 46% – thought they were recognized by their organization for a job well done.

“If you don’t feel valued,” said Dr. Robert Wergin, president of the American Academy of Family Physicians, “then no matter what you’re paid, it seems unfair.”

Visualization enhances the ability of medical groups to make smart compensation decisions that do both: pay fairly and make providers feel valued.

That, in turn, helps recruitment.

Attract and retain valuable and high-performing personnel.

Health care providers are valuable, and as a result, they are high-priced and important employees. Having the right radiologist or oncologist, for example, could be hugely impactful for a health care organization by providing in-roads into new revenue streams. It’s important to please these team members.

Remember, health care organizations are hurting for good physicians and surgeons. The U.S. Bureau of Labor Statistics predicts that employment of physicians and surgeons is projected to grow at nearly twice the average for all occupations through 2022 (18% versus 11%). That means your organization is facing stiff competition in recruiting these people.

Judy Bee notes the potential consequences of that misalignment: “Good employees may leave because they are lured away (someone else promises something missing in your practice) or because they are driven out (something in your practice is intolerable.)”

An organization’s ability to handle compensation models in an accurate, timely way with clear and alluring incentives can spell the difference between boasting recruiting strength versus being undercut by other, more forward-looking competitors. This can include offering “special deals” – doing whatever it takes to gain a new provider, but at the cost of creating a compensation plan and contract that doesn’t align with current plans and agreements.

Fortunately, this is another area where data visualization can help, as we’ll look at next.
Standardize compensation models, ensure regulatory compliance, reduce uncertainty – all in one fell swoop.

At the same time that your organization struggles to remain competitive, you don’t want to overcomplicate the compensation process. If an organization doesn’t track its compensation models effectively, compensation can turn into a many-headed hydra. Staff will struggle to stay on top of the myriad compensation models (e.g. tracking idiosyncratic special deals manually), while risks of non-compliance with relevant regulations creep up.

Data visualization pulls back the curtain.

For example, suddenly the reality that your organization is trying to keep up with 10 or 20 compensation models (and even more variations of those models) becomes painfully clear.

That gives you the opportunity the pare back to the 5 models that you really need, with room to account for the variations that help you remain competitive.

That, in turn, improves processes, efficiencies and organization-wide standardization.

Visualization yields a powerful "data to discovery to dollars" process.\textsuperscript{xv}

The bottom line of any technology is always how it impacts the bottom line. Data visualization is a way to build what The Harvard Business Review (HBR) calls a “data to discovery to dollars” process. This “triple-D” process is a combination of technology and practices that uncover the hidden value inherent in raw data and combines disparate data points – often culled from various integrated data sources that can range from payroll systems to patient records – to create insight or intelligence that is greater than the sum of the parts.

In the end, it’s not just about paying physicians fairly or attractively but also cost-effectively; or about making them feel valued; or about helping administrators do their jobs more quickly and easily. Smart use of data does all of that, of course; but it also arms organizations with a sufficiently deep-level understanding of their operations that they can make better decisions that benefit everyone, from the providers and administrators on the ground to the patients whose satisfaction feeds the future of today’s medical groups.

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About Hallmark Healthcare Solutions

Hallmark Healthcare Solutions is a global healthcare solution and information technology firm with offices located in New Jersey, New York, Michigan, and India. Hallmark offers a unique approach inclusive of both strategy and technology to achieve the desired outcome. The technology component positions organizations to use real-time data for improved decision making with regard to leveraging human capital. Over the years, Hallmark has helped organizations optimize and save millions in labor expenses, improve their efficiency, and achieve fiscal responsibility through best-in-class software and strategic workforce solutions.

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