

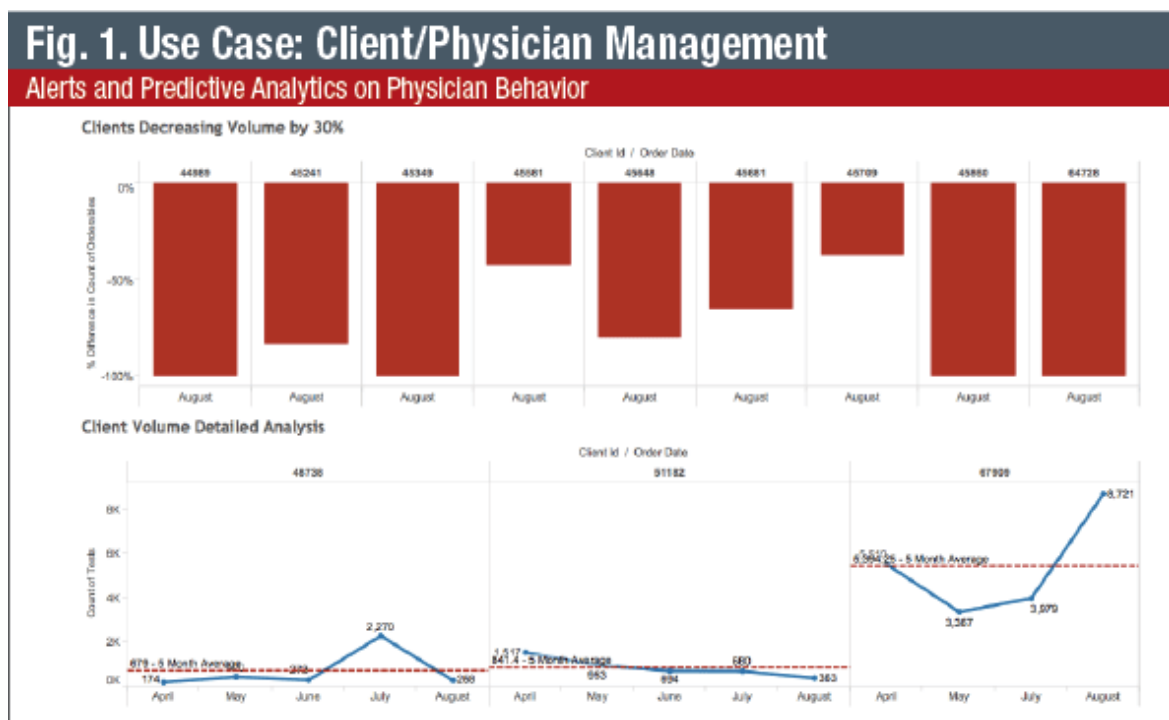
Business analytics insight within easy reach

Anne Ford

July 2015—It used to be that business analytic solutions came only from LIS or enterprise-wide vendors, accessing these solutions meant going through the IT department, and laboratories' requests to join the business analytics party frequently fell to the bottom of the priority pile.

Forget "used to be." Now, says Hal Weiner of Weiner Consulting Services LLC, in Eugene, Ore., "new tools have been developed by third-party vendors to make it much easier for labs themselves to create their own dashboards, their own queries, and their own monitoring tools." And interest in business analytics is high among health care executives. A survey last year by Price Waterhouse Cooper of 1,344 health care CEOs found that 68 percent had concrete plans to implement business analytics or had undertaken or completed an implementation. An additional 22 percent were developing a strategy to implement, Weiner reported in a presentation in May at the Pathology Informatics Summit (a presentation developed in tandem with Dennis Winsten of Dennis Winsten and Associates, Tucson, Ariz.). In the talk and in a CAP TODAY interview, Weiner discussed what to consider in evaluating and implementing business analytics tools and reviewed acquisition and pricing options.

First, he provided several illustrations of how laboratories can use dashboards and reports from various analytics companies.



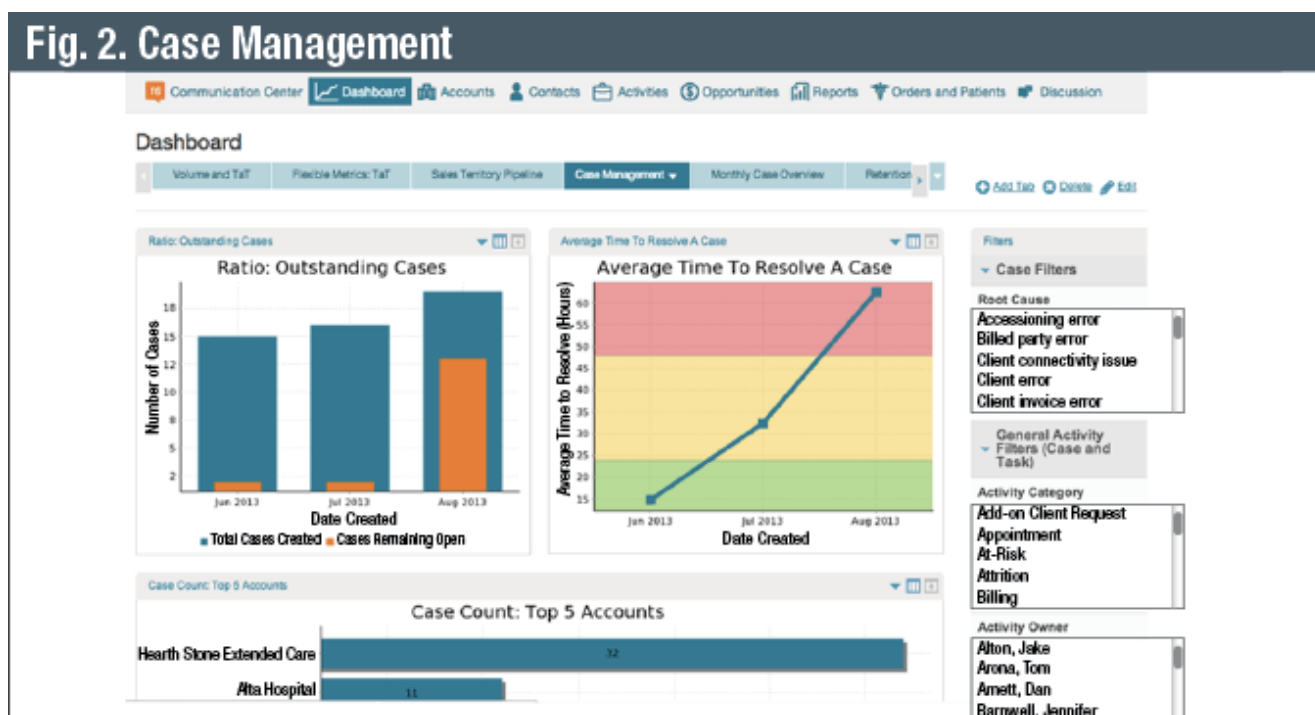
Courtesy of Viewics. Example does not contain real data.

"What this is doing," he says of **Fig. 1**, "is looking at clients whose volume has decreased by 30 percent, so I can find out who's not giving me business" (see "Use Case: Client/Physician Management").

"I want to look at what tests, what revenue, what's the differentiation in the account from month to month, from client to client, because decreasing volume is a leading predictor that those clients might go somewhere else." A business analytics tool can help a laboratory see what tests its customers are ordering and not ordering. "It can alert you when your client has had a practice variation, it can tell you what tests are being improperly utilized, and it can prompt you to reach out to your clients to determine what's going on and give you suggestions to retain

their business.”

Business analytics tools can help laboratories not only preserve revenue but also increase customer satisfaction. “If you’re a service organization, you want to provide absolutely the best service to your clients,” Weiner says. “You want to be able to turn around calls quickly when clients complain about issues.” Referring to **Fig. 2**, “Case Management,” he says: “This is a way to manage issue resolution for both your internal and external clients. The people who are leading the client service organization can look at this and ensure their group is providing service by tracking issue resolution, the root cause, the correct action, the length of time it took to resolve the issues. And then by proactively addressing those issues, at-risk clients can be reduced and relationships can be expanded.”



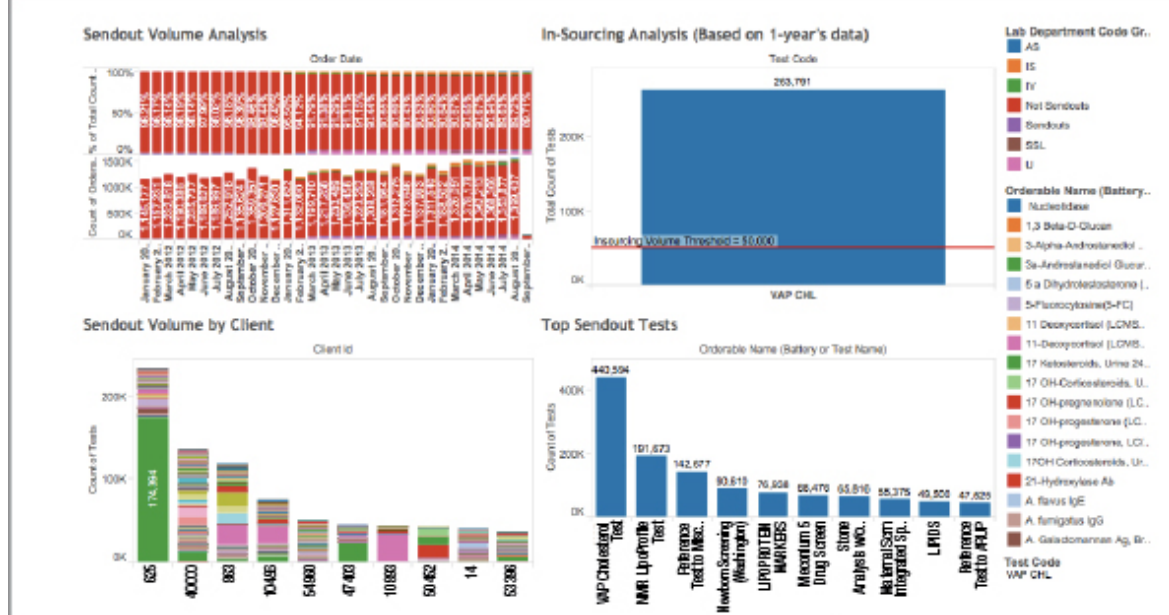
Courtesy of HC1.com. Example does not contain real data.

Some business analytics systems, he says, include a customer relationship module and can integrate to an existing laboratory information system. “What this lets you do is not only look at the volume of work but also at how well you are servicing your top clients.”

Then, too, business analytics has much to offer in the reference testing arena. **Fig. 3**, “Use Case: Reference Testing,” shows where volume is going, how much work is going outside the laboratory, what kinds of tests they are, the top tests by test and by client, which tests it makes sense to perform internally rather than send out. “This also lets you look at what send-out tests physicians are ordering for which there is a good in-house substitute,” Weiner says. “Maybe there are tests that don’t really need to be ordered. So one could look at defining best practices for certain sets of orders, especially in genomics testing, so that you can set appropriate test-ordering processes within your organization and significantly reduce the cost and the waste that may happen in that area.”

Fig. 3. Use Case: Reference Testing

Analyzing Performance and Use of Reference Partners



Courtesy of Viewics. Example does not contain real data.

All well and good, but what concrete benefits have laboratories realized from business analytics? Weiner proffers a bouquet of examples. “An 850-bed hospital looked at its turnaround time for the emergency department, which had significantly increased over time,” he begins. “Business analytics helped them monitor their turnaround time and determine where the bottlenecks were occurring. They used Lean to improve the process while continually using this business analytics tool to monitor their progress.” Turnaround time improved so much that stats are no longer ordered, he says. “It also resulted in reducing their order entry errors by 22 percent, because they’re able to classify them by type of error and retrain the people who were making the highest percentage of them.”

Weiner credits business analytics, too, with helping a teaching hospital first determine which of its physicians were ordering inappropriate cardiac genetic panels based on diagnoses and results and then recommend best-practice alternative protocols. “That saved them about \$120,000 per year,” he says.

The third example is one that really resonates with many of his clients. In this one, an extremely large reference laboratory used a business analytics tool to determine which of its clients were ordering supplies for tests such as Pap tests—but never placing orders for those tests. “It happens all the time,” Weiner says, “and in the past there were very few ways to monitor it, because your inventory was typically in a separate system from your test-ordering patterns, and there were very few ways to link them. Now, with business analytics, you don’t have to write a lot of code to do it; you can just go in and create a query.” As a result, this laboratory reduced its supply order usage by 18 percent. When those clients ordered supplies, it would have a sales rep call and say, “We noticed you haven’t ordered any Pap tests in the last year. We’ll be happy to send you the supplies if you start ordering Pap tests from us.”



Weiner

Another very large facility is the star of example No. 4. “This multisite facility monitors physician ordering patterns

by diagnosis and payer,” Weiner explains, “and they managed inappropriate or non-reimbursed tests and improved both revenues and profitability by about nine percent by going in and suggesting alternative tests and working with physicians.”

But for all this to work, he says, a full top-down commitment from the highest levels of the organization is needed. “Because if the lab just has this data and tries to talk to doctors without some top-down push that says, ‘This is important. You need to work with the lab. We’re working together as a team to improve the whole process within the institution,’ the probability that a lab acting solely on its own will have an impact is lower than if it had a top-down commitment from top-level management.”

Finally, Weiner points to the example of a private reference laboratory that improved customer satisfaction by 61 percent, simply by monitoring key indicators such as number of calls, complaints, turnaround time, and order errors. “This is nothing more than looking at data that every lab currently has,” he says. “I think we’re just at the very top of the pyramid in using this kind of data, and as more and more people start using these tools, the deeper we’ll go.”

Of course, before you can go deeper, you have to dive in. Weiner reviewed several considerations to bear in mind when evaluating a business analytics tool, such as how the database is handled.

“Is this a separate database that’s created and maintained, or is your LIS database used?” he suggests asking. “What data sources can be accessed? Can it look at your inventory, your customer relations management? What’s the cycle time? How long does it take to get the data? Is it instantaneous? Does it have an impact on the performance of your LIS? Because it doesn’t make sense to use a dashboard if it’s going to slow down your LIS by 15 percent.

“What’s the scope? Is it only your LIS or do you want to look at other sources of information? Do you want to look at the actual clinical results themselves, or do you just want to look at statistics? And how easy is it to create access to the business analytics tool itself? Do you need an IT guru, or can someone in the lab be trained to use it?”

Bear in mind, he says, the differences between traditional projects (such as implementing an LIS) and business analytics projects.

“When you’re looking for an LIS, your requirements are known in advance. You know what your needs are. You can put out an RFP that says exactly what your LIS has to do. The requirements are pretty fixed and stable,” he says. “When I go into business analytics, I have no idea what I’m going to be needing in terms of queries. As I find out more information, I may need to have access to a different database—maybe to payroll data to find out if I’m getting appropriate productivity from a group of staff members, or to look at vendors of my supplies to see if someone’s charging me way more than another vendor. So I have all these changing, evolving requirements.”

The LIS project value is usually easily measurable, he adds. “I can do an ROI on an LIS project because I know how much it’s going to cost and what my return is going to be. With a business analytics tool, I don’t know what results I’m going to be getting until I start using it, so it’s very difficult to do an ROI. This is important because if you’re going to be looking at business analytics—and I think every lab is going to, with the changes in reimbursement and the move from a patient-centric to a population-centric model—most users can’t get that type of information out of the existing system.”

When establishing the need for an investment in a business analytics tool, Weiner suggests considering that “If you’re using Excel spreadsheets to download data and then spending weeks manipulating it to get a report, people need to ask: ‘How much time and effort is this taking me, and am I having to do it more and more?’ If so, maybe there’s a better solution. And is what you’re getting data and not information?” The key difference, he says, is that business analytics systems today can organize data in a fashion that lets a laboratory gain insight into its operation to be able to track key indicators and do change management.

“And then let’s talk about implementation strategies and considerations,” he continues. “Do I have appropriate top-level leadership and support? Do I have adequate IT support? And do I have a working team made up of caregivers, the IT department, and my laboratory organization? You’ve got to have a cohesive team and buy-in.”

Some hospitals choose to implement business analytics systems in a phased approach, department by department, while others implement it immediately and all at once. Some limit the analytics project to those at the C-level, while some add it to current software such as an LIS or provide the tools only to end users to perform self-service reporting. In making their implementation decisions, users should consider how many data sources are involved, and which types; the data’s size, complexity, and location; the number of people who will be running queries at the same time; the number of licenses needed; and the software’s ease of use.

“The nice thing is, business analytics solutions can now come from dedicated analytics vendors or from your LIS vendor or your enterprise-wide vendor, so there’s lots of choices to look at,” Weiner says. “Pricing can vary from very little to a whole lot” and is based on number of users, number of system data sources (LIS, AP, A/R, EMR), scope (operational, financial, clinical), complexity, and annual test volume. Some subscription-based tools offer minimal upfront costs, the option to discontinue, and built-in support, maintenance, and upgrade costs—whereas other licensing-based tools may require a larger upfront cost, software that operates on a hospital’s servers and under the hospital’s control, and annual support/upgrade fees (18 to 20 percent of initial purchase price). Both solutions offer potential for integration with other applications for additional fees.

Whichever pricing model an institution chooses, Weiner says, “you really want to evaluate the characteristics of what you want a business analytics system to do for you. Create the requirements before you just say, ‘OK, we’ll take whatever the LIS vendor or my enterprise-wide vendor is going to offer.’”

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Anne Ford is a writer in Evanston, Ill.