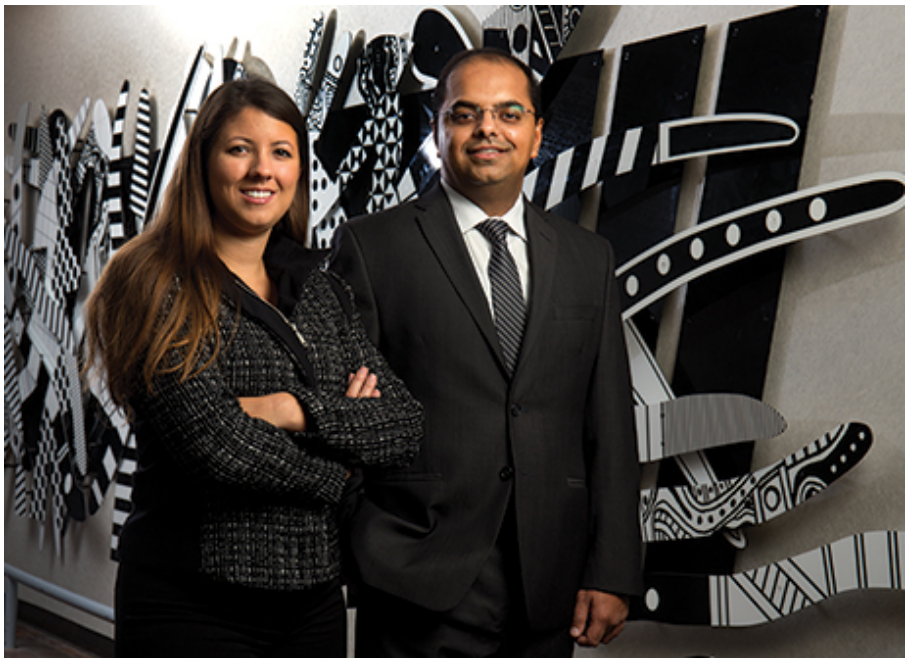
Analyze this: data shines within and without

Kevin B. O'Reilly

November 2015—At PAML patient service centers, patients fresh from a blood draw may spot a kiosk that asks, "How was your experience today?"

Responding is as easy as pushing one of four buttons with facial expressions that range from a broad smile to a major frown. The kiosk's manufacturer, HappyOrNot, says about 20 percent of customers across a spectrum of industries will stop to register their level of satisfaction. For PAML, the rate is averaging 60 percent, and the results are transmitted wirelessly, says Rosalee Allan, senior vice president and chief operations officer at PAML (Pathology Associates Medical Laboratories, Spokane, Wash.).



Henry Ford Health System's Dr. Gaurav Sharma (right) and Jacqueline Copeland use analytics to track, trend, and prevent preanalytic defects. "We're trying to gather and look at large amounts of data with the aim of converting it into information that leads to action," Dr. Sharma says.

"This sends us a dynamic report and we can tell by the hour what's going on at our patient service center," Allan says. The question patients are asked to answer can be changed on the fly to, for example, "How was your wait today?" during especially busy times of the day.

"We can find out what the dissatisfier is at this patient service center between three and five in the afternoon," Allan says.

How Allan and her colleagues at PAML used this information to unravel the patient service center puzzle—more on that later—illustrates just one way that laboratories are using the power of data, properly analyzed, to achieve objectives. There are, experts say, two broad categories of ends to which labs today are applying analytics. In the first class sits laboratory operations. Here, the use of analytics is geared toward reducing unneeded test ordering or improving patient experience, turnaround times, and client service.

The second, broader category can be dubbed health system analytics. Some enterprising lab professionals are

looking beyond the traditional confines of the laboratory to investigate how optimal use of analytics could prompt timelier patient interventions and avert costly episodes of care or help slash inappropriate use of high-priced medications.

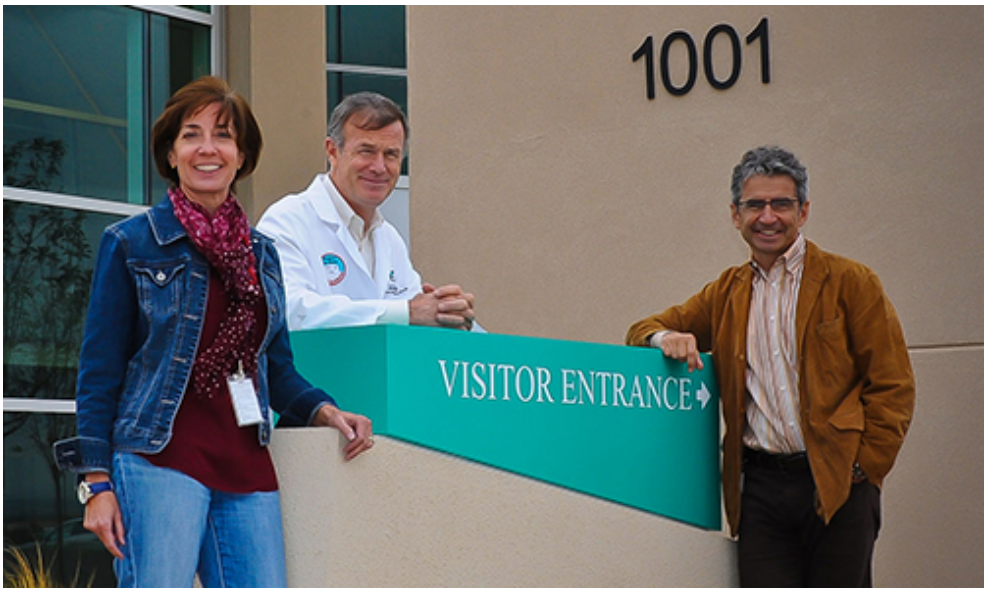
That sort of ambitious approach to medical data is more of a necessity than a choice, argues Khosrow Shotorbani, MT(ASCP), president and CEO of TriCore Reference Laboratories, Albuquerque, NM.

“Laboratorians are trying to manage their performance through the analytical data, and that’s where I believe laboratorians are achieving six sigma performance. Unfortunately, on the preanalytical and postanalytical side, we haven’t done a good job demonstrating our value,” Shotorbani says.

“That’s where TriCore is focusing. Most of our investment, effort, and intellectual property goes to the pre- and postanalytical stage, going beyond the draw and focusing on postanalytical results.”

This emphasis is driven by the changing rules of health care payment, which present a threat and an opening for laboratories, Shotorbani says.

“We’re moving from volume to value,” he notes. “Volume is very transaction based. Value is going to be population-health based. I’m of the opinion that the laboratory has an immense opportunity to reshape the way medicine is delivered by moving toward targeted real-time interventions that drive population health management and ultimately prevent disease complications before patients are admitted to the emergency room or hospital where health care costs rise.”



From left: Kathleen Swanson, Dr. Michael Crossey, and Khosrow Shotorbani of TriCore Reference Laboratories believe the power of predictive analytics will help them smooth the transition from payment based on volume to payment based on population health management.

The plan that Shotorbani and his colleagues have is for TriCore to take advantage of its position as the holder of 70 percent of clinical laboratory data in New Mexico. In April, TriCore acquired the Rhodes Group laboratory IT firm. Together, they have worked to implement an enterprise master patient index, or EMPI, that allows TriCore to track and trend each patient’s lab test history and other demographic information regardless of which physician ordered the test or where it was ordered. They hope to analyze all those data to spot when patients may be headed for trouble, and to sell that predictive analytics service to health insurers and health systems.

The underlying challenge in doing this sort of work is to overcome the traditional limits of laboratory information systems that are "extremely transactional," says Michael Crossey, MD, PhD, TriCore's chief medical officer.

LISs "are order driven and claims based, not clinically focused. The most creative thing they could do is a delta check," he says. "When you are trying to use an LIS with the current architecture to track a patient as an inpatient and an outpatient in an independent clinic, they are woefully inadequate to perform that function. And they're not really good at analyzing data."
Shotorbani says it is the longitudinal data being collated in TriCore's EMPI that enable its predictive analytics to work.

"For TriCore, the foundation of our analytics effort is that chronological patient data, and making sure all labs are tagged to the same person every single time, and developing trending analytes every time we see that patient," he says.

TriCore officials already have found areas where they believe analytics could make a difference to patients, physicians, and ultimately payers.

"If you are able to identify a high-risk pregnancy and get the patient into care management, we think we can impact the cost of delivery in a massive way while improving outcomes and the quality of care," Shotorbani says.

TriCore is capable of doing just that, he says, and has identified a potential $2 million in monthly savings in better care for women with high-risk pregnancies.

Says Dr. Crossey: "Most pathologists in the clinical laboratory space see so many things that don't get done to promote good medical care and so many things that languish even though they are the standard of practice for pregnancy. Traditionally, it's 'I can tell you what [testing] I did and that's it.' We've actually been able to tell payers and prescribers what didn't get done. These are the gaps in care.

"I can review data on pregnant women at nine months and identify what got done and what didn't get done, in terms of a GTT, group B strep, HIV tests, the list goes on and on. Our efforts look at what the current best practices are and then identify what got done and then show them [doctors] their care gaps. That's something we talk about a lot with health plans."

The overarching goal is to make it simpler for physicians to provide excellent care that will avoid long-term costs, Dr. Crossey says.

"If you make it easy, in my experience doctors and even patients will do the right thing. Instead of ordering a pregnancy test, what if you just order a pregnancy care package. If the testing is negative, we're done. If the pregnancy test is positive, I set you up and ping you for the 27-week GTT and the 36-week strep B, and all the testing in between. If I've got a high-risk GTT, then we move you up the scale for high risk."

Another area where TriCore plans to flex its predictive analytics muscle is in diabetes care. The laboratory says it can provide real-time data on patients with elevated creatinine or patients who have HbA1c levels in the prediabetic range. TriCore also can provide historical data on patients whose HbA1c is uncontrolled or who have not had an A1c test in the last six months.

"If a prediabetic patient becomes a diabetic, their health plan will now incur $13,000 more in annual costs associated with that patient," says Kathleen Swanson, RPh, director of enterprise clinical solutions at TriCore. "Every patient we can identify in advance and prevent from disease progression [to diabetes] is saving the payer the financial risk and reducing the clinical risk for that patient."

Swanson says the power of TriCore's analytics could help busy doctors more effectively triage their patients.

"The concept is that by risk-stratifying these subgroups, we can identify unique populations of patients where you'd want to spend more time, energy, and resources and, likewise, find that grouping of patients that you don't

need to worry about right now because they're very low risk."
TriCore's predictive analytics work is at the pilot stage, but Shotorbani and his colleagues say they will go live with a product offering in 2016.

"The question is how do we create value outside the CPT code schedule, where both the customer and the health plan benefits go beyond the price per test," Shotorbani says. "We have initial pilots that look promising in terms of actionable information."

Down the road, Shotorbani says, laboratories should look beyond their own data repositories to enable even more powerful analysis.

"The opportunities in the future really require working with pharmacy and radiology to make our information more robust and complete," he says. "The lab alone can't provide this complete picture for the future. We have the beginning of the story, making up to 70 percent of the EMR and influencing 70 percent of the clinical decisions. But that's by no means complete."

Another innovator pursuing health system analytics to improve care and cut costs is Brad Brimhall, MD, MPH, professor of pathology at the University of Texas Health Sciences Center at San Antonio. In a presentation at this year's Executive War College, Dr. Brimhall noted that lab-led efforts to identify inappropriate tests in 23 circumstances (for example, ordering CK-MB in addition to troponin) added up to $396,847 in variable costs that could be avoided.

A subsequent project that made use of LIS data and analytics to target improper prescribing of two pricey antibiotics showed potential savings of $649,665.

Dr. Brimhall

"Remember, for all 23 test scenarios, we identified almost $400,000 in laboratory savings. Two drugs, $650,000. Twenty-three test scenarios, $400,000. Which is bigger? And it was kind of an epiphany for us," Dr. Brimhall said at the War College. "We thought, 'Wow. Why are we limiting ourselves to the laboratory?' This still involves the laboratory. It's not a complete pharmacy project with no laboratory aspect at all. We're just saying, 'What is that information being used for downstream?'"

In the case of antibiotic prescribing, the question presented by Dr. Brimhall's colleagues in pharmacy was how often two costly antibiotics—daptomycin and linezolid—were given to inpatients after testing showed their bacterial infection was sensitive to the much less expensive alternative, vancomycin. The answer: 69.7 percent of the time. Another 3.7 percent of patients' infection sensitivities were indeterminate, while only 26.6 percent given daptomycin or linezolid had infections resistant to vancomycin.

Dr. Brimhall noted that in cases of skin or deep-tissue infection, there may be evidence to support prescribing daptomycin or linezolid over vancomycin. Meaning that perhaps for this patient group, even for vancomycin-sensitive cases, the more expensive antibiotics were arguably appropriate.

"What I'm showing you is the story can get a little bit more complicated. It's not just so simple. But you can always address it if you use analytics and further develop skills you've got in the laboratory," said Dr. Brimhall, who is also director of medical analytics at Orchard Analytics, a new division of Orchard Software.

“How many of the infections came from a deep-tissue infection? Well, we actually have a source. There are actually two data fields that deal with this in our database. So we can parse it and stratify by the source of infection.”

That analysis showed that just 9.7 percent of the patients with vancomycin-sensitive infections were from skin or deep-tissue sites.

Which means, Dr. Brimhall said with a laugh, “instead of the savings being about $650,000, I’ll admit it, it’s only going to be somewhere north of $550,000. Gee, isn’t the lab still great? Yeah, we are, ’cause we just did a great thing for the hospital.”

In their research, Dr. Brimhall and his colleagues dug up another disquieting piece of information. More than 300 doses of vancomycin per year were given to patients after the infections were known to be resistant to the antibiotic. There was not a big price tag associated with that pattern, less than $5,000 annually, but it is a quality-of-care concern. And those kinds of issues “are getting a lot more attention because they involve revenue. But they should get attention on their own,” Dr. Brimhall added, “because if I’m the patient and I have a bacterial infection and it’s resistant to vancomycin, then why give me vancomycin when the information has been made available? Because who gave the provider the result? The lab did—once again.”

Dr. Brimhall offered another example where the use of analytics extended beyond the customary laboratory role by targeting inappropriate use of anticoagulants.

Even in a system as big as the University of Texas Health Science Center at San Antonio, there might be only 200 or 300 cases per year in which patients appear to have heparin-induced thrombocytopenia, or HIT. But, Dr. Brimhall said, when physicians believe their patients may have HIT, they order testing, stop heparin immediately, and switch the patient to a much pricier anticoagulant such as argatroban.

Part of the approach was to investigate how to reduce inappropriate ordering of HIT testing. The condition is not common—happening in only 0.2 to 0.8 percent of patients treated with heparin—and testing will usually come back negative, but by then the patient has already been switched to argatroban. Dr. Brimhall’s laboratory colleagues deployed a pretest probability screening algorithm that takes into account various clinical factors to help physicians determine whether to order the testing. That helped cut use of HIT testing from 224 orders in 2007 to 67 in 2011, saving $18,448 in send-out testing costs.

But, once again, the pharmacy savings were the real eye-opener. Making clinicians jump through the screening algorithm hoop before ordering HIT testing helped slash $220,055 that had been spent on argatroban while awaiting HIT testing results.

The laboratory is well positioned to take a leadership role in medical analytics projects, Dr. Brimhall tells CAP TODAY.

“The laboratory is probably one of the areas in the hospital that’s closest to discrete data,” he says. “The hospitalist is accustomed to writing notes, but notes aren’t discrete. If you want to use that information for analytical work, you’re going to have to use natural-language text processing techniques or some other method to parse the information from plain text documents.”

At the War College, Dr. Brimhall said digging into analytics usually earns the lab plaudits among colleagues and higher-ups. “In the laboratory we tend to touch so many specialties that it affords us a more global view. But much of the value requires that we leverage data beyond the laboratory and work closely with our colleagues to carry out important projects.”

Back at PAML, the cause of patient dissatisfaction with a patient service center turned out to involve factors outside the laboratory’s control.

“Our first thought is patient wait time. Yet we could see that the patient wait time was really good at about that time,” PAML’s COO Allan says. “We are finding out that some of the dissatisfiers are not what you might think they are. More of it has to do with patients showing up with ports but whose doctors didn’t tell us, and we don’t draw out of ports at patient service centers. And in this age of electronic orders, sometimes the electronic order is not readily accessible. So we have to spend time contacting the physician—welcome to the new electronic ideal! It’s becoming the most common new problem. And for patients coming to draw centers, we look at all the time we’ve spent chasing wait times when that’s not the issue. What’s causing the issue is spending time looking for the electronic order.”

The HappyOrNot patient satisfaction information was combined with daily, dynamic reports—drawing data from the LIS on when the patients arrived at the service centers and when they were collected—to provide a fuller picture of what was happening and where to make improvements.

The customer experience at patient service centers is just one of many ways in which PAML has used analytics to improve its service. One of its first projects using the Viewics Health Insighter offering, which is aimed at midsize to large independent, reference, and hospital laboratories, involved making better use of the pending test reports produced by the LIS.

“We had a need to get information out of our LIS faster than we normally do,” Allan says. “We currently don’t have a full data warehouse, so anytime we needed a report out of the LIS we had to wait for the LIS staff to do the report. That was the thing that got us going on this—the need to get this information in our hands sooner, without having to wait.”

Three full-time staffers worked on the LIS pending logs daily. Using Viewics eliminated that work and helped save hundreds of thousands of dollars in labor costs. Moreover, the data produced by the LIS were not especially useful. They were static and could not be sorted. Using Viewics has changed all that, Allan says.

“The possibilities are endless and can be done on the fly. We might want to know how many clients ordered a test, or how many clients had a certain amount of positives. What’s the utilization on a daily basis, what’s pending, what hasn’t final resulted,” she says. “We will use it for forecasting staffing needs for the upcoming holidays. We find out how many specimens we got the previous holiday season to model our holiday schedule.”

Another analytics service the reference laboratory is offering to its physician customers is reporting on their test utilization.

“Anybody who’s putting their orders in Epic can tweak their systems or processes to put things in place to manage this [testing] appropriately. But they need the data first,” Allan says. “It’s valuable when we can automatically run them a report. The LIS is not set up to do the slicing and dicing or the imaging of this information. But when we get it over to Viewics . . . and then we can drill it up, parse it around, do graphs and dashboards, and share the views with the clients and make it dynamic. . . . It’s just one quick way to get it [the information] out of there.”

People from many different areas in PAML—finance, IT, management—are tapping into Viewics, Allan says.

“Every day, I see somebody doing something new with it. And you know it’s integrated into your culture when people just use it automatically.”

At other health care organizations, the analytics focus has been to use this powerful approach to improve essential laboratory operations.

The 11-hospital, Austin, Tex.-based Seton Healthcare Family saw that the reports it produced to measure turnaround time performance were insufficient.

“We’d look at monthly averages—it wasn’t in real time but a month later,” says Thel Grayson, BSMT(ASCP), Seton’s network director of laboratory operations. “The Seton Medical Center in Austin had a very high volume, and our

average turnaround times were fairly consistent, yet we'd still get calls from the ED."

Seton turned to Visiun's Performance Insight as one part of its effort to track and upgrade its performance. Visiun president and CEO Thomas Joseph says the analytics product has more than 120 laboratory customers nationwide.

"We decided we needed a system to track in real time and actually we changed the way we looked at things," Grayson says. "We were no longer looking at just average turnaround times. Visiun allowed us to look at outliers so we could decrease variability and increase consistency."
"You're only as good as you're last error. Even though we get it right 5,000 times a day, they remember the one time it took 45 minutes to get the result out instead of 30."

"If the ER's not happy and not getting results fast enough, if the lab can't meet their needs, they'll start looking outside the laboratory and look to bring in point-of-care testing, which is a huge cost," she adds.

Starting in the spring of 2012, Seton tracked its TAT from when the laboratory received a specimen from the emergency department for a basic metabolic panel to when it was resulted. The TAT goal was 30 minutes, and the average TAT was 22.9 minutes while the median was 21 minutes. But Grayson and her colleagues discovered an alarmingly high number of outliers, cases when the TAT was much worse. By the time they looked at their 98th percentile performance, the TAT rose to 49.7 minutes.

The results took the laboratory managers by surprise.

"You kind of question the data that's given to you because you thought you were hitting them [the TAT goals]," Grayson says. "We all came to realize fairly quickly that we weren't."

The visual impact of the analytics reports made a difference, she adds.

"It allows us to put that out there with the staff, and it created a common vision for what the reports are for, everyone looking at the same situation, which staff are working in which area, and it allowed us to hold people accountable for their turnaround times and it's an accountability they can see," Grayson says.

Another change at Seton was the deployment of OL_Monitor, an overhead monitor system that interacts with the Sunquest LIS to show in real time which tests are running on time, which are close to being delayed (within five minutes of the TAT goal), and those running late.

"I can tell you when I come into the lab my head immediately turns toward that monitor to see how they're doing," Grayson says. "Is the monitor full? Is something in the red? People have learned this and they'll rush over to say, 'Oh, I'm about to release that result.' Or immediately tell me the instrument's down so they had to do it manually."

Within two months, the average TAT for basic metabolic panel orders from the ED fell 45 percent to 12.6 minutes, while the median was slashed 52 percent to 10 minutes. And 98 percent of the tests were resulted within 32.6 minutes, a drop of 34 percent, which improved their peer ranking from the 57th to the 94th percentile. "We continue to sustain our improvements," Grayson says.

Adjustments contributing to that improvement included changes to specimen receiving roles, the purchase of stat centrifuges, time-and-motion studies, and other "Lean things," she says.

"The big thing was just awareness. Until we had this tool, we didn't have a good sense of awareness of what was happening. Our average turnaround times were good, and when you have 7,000 CBCs a month it takes something large to happen to change that turnaround time. But when we started looking and you have 20 outliers a day, well, then, no wonder the ER's dissatisfied. Then we could really focus on that."

In other cases, analytics has helped show that laboratory performance was up to snuff. There had been a push among some in the ED for a move to point-of-care troponin testing, Grayson says. That could have cost the health system $250,000 a year.

“We were able to give them our [turnaround time] results,” she says. “We share this information with other departments—we don’t just keep it in the lab…. They’ve got the numbers right in front of them, and automatically emailed to the medical director, and they can clearly see we’re hitting it, hitting it consistently, and at a high rate.”

Visiun has been a key component to helping improve TATs at the Henry Ford Health System in the Detroit area.

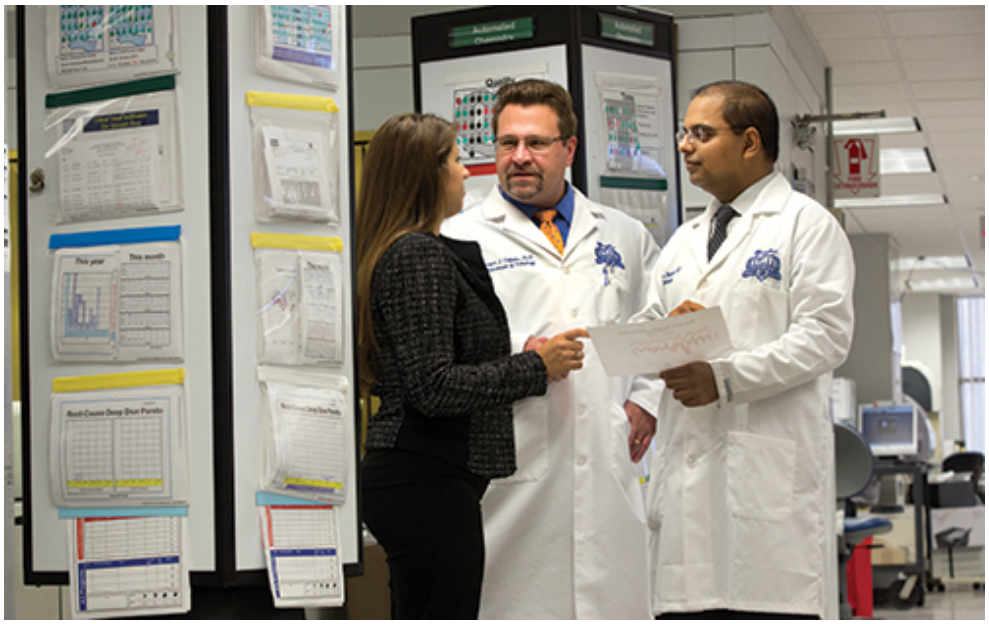
“We started out using it [Visiun] for turnaround time. We track from the time the specimen is received in the laboratory to the time a result is reported,” says Gaurav Sharma, MD, senior staff pathologist and director of the Henry Ford Regional Medical Laboratory. “When we did that, we were able to progressively decrease our turnaround time by a lot. That was astounding. We can report everything that we receive in a very short time frame.”

But that improvement is just a first step. He and his colleagues are working to design a report in Visiun that will draw from the LIS the time from specimen collection (and who collected the specimen) to result reported.

“The customer doesn’t care about whether you were able to do it in one or two hours after it reached your laboratory,” Dr. Sharma says. “What they care about is: Was I able to give the specimen in the morning and get the result in the afternoon? We’re on the frontier of extending our data capture horizon outside the laboratory, in finding out how to capture the time from collection.”
Henry Ford Hospital is also looking at analytics-driven capture, tracking, and reduction of defects, and at nonvalue-added work. Using a homegrown system for this, Dr. Sharma and his colleagues have started tracking and trending daily more than 100 classes of specimen defects.

“What that’s shown us is that we have a large amount of preanalytic defects,” says Jacqueline R. Copeland, MT(ASCP), a quality improvement specialist who works with Dr. Sharma. “Greater than 90 percent of the defects that affect our processes are handed over to us before we even touch the specimen—quantity not sufficient, clotted specimens, and so on.”

The homegrown report is analyzed monthly. Now a customized report within Visiun shows how these defects have affected Henry Ford’s entire pathology product line, Dr. Sharma says.



Dr. Sharma and Copeland, of the Henry Ford Health System, have worked with clinical microbiology associate director Robert Tibbetts, PhD (center), on many laboratory

analytics projects, including the evaluation of MALDI-TOF's downstream impact on lengths of stay and patient costs.

"Now we are able to capture in real time, on an almost daily basis, what was the defect profile handed to us. Now we're going back to targeted, high-frequency sites to work with them to improve what they're sending us."

One major preanalytical defect already spotted using this approach came when Henry Ford switched to Epic in 2014. The system asked ordering clinicians to specify whether the sample would be collected in the clinic or by the laboratory at a later time.

"When the patient showed up at the phlebotomy site with the clinic-collect order, the order would not cross the interface," Copeland says. "Someone had to make a call to the ordering provider to rehabilitate the order. If you didn't have this system of tracking and trending, we couldn't focus on the select few clinics that make up a huge gamut of nonvalue-added work for which we were interrupting operations."

A laboratory manager met with targeted clinics to explain what the problem was and to train clinicians on how to place the orders and choose the right type of collection, resulting in a greater than 90 percent reduction in this type of mistake.

Analytics also offers laboratories the promise of quantifying how improvements in their performance can cut overall health care costs, Dr. Sharma says. For example, when the microbiology laboratory at Henry Ford brought in MALDI-TOF, the time it took to identify Candida glabrata and other organisms fell from 4.5 days to 2.5 days.

"For the leadership in our microbiology laboratory, that two days was significant. So they sat down with the ICU folks to find out the downstream impact on length of stay. Just for Candida patients, the length of stay went from 14 days to 10," he says. That cut in length of stay saved nearly $20,000 for every such patient. Now, the microbiology laboratory is looking at what downstream effect the use of MALDI-TOF to identify other microorganisms is having. While such calculations must be done manually, Dr. Sharma says analytics products could help laboratories prospectively model the cost impact of new technology and the changes it brings to lab and hospital operations.

"Business intelligence companies can come up with software to help us do this," Dr. Sharma says. "Then laboratorians will have a far better and more data-driven justification for new investments—or not to do investments that may not pay off."

Schofield

NorDx, which operates 11 laboratories and 23 patient service centers and is owned by the Maine Health system, started using Visiun in February to help measure turnaround times and test utilization.

"We're using that information and working with clinical management to look at, for example, whether people are ordering TSH and T4 at the same time when it's not medically indicated," says NorDx president Stan Schofield. "We're working on that and developing utilization guidelines for medical staff as part of ACO preparation and participation."

Visiun's offering does have a learning curve and is "not a universal cure-all," Schofield says. Visiun was awarded a

sole-source agreement for the 26 health systems that are part of the Compass Group, a 501(c)(6) business league that Schofield cofounded and of which he is managing principal.

“It’s kind of a bolt-on to LISs, and it offered a low-cost option for some kind of data extraction,” Schofield says. “And it seems to be gaining adoption and credibility within the Compass Group.” A handful of the health systems that are members of Compass have adopted Visiun.

Schofield says that once the tool is mastered, it can offer a good deal of value.

“It’s pretty easy for people to write the rules. If I were to say, ‘How many patients have hemoglobin A1cs done more frequently than 60 days?’ it’ll pop up. They can write the rule in half an hour and run it,” he says.

Schofield says that many of the options in the emerging laboratory analytics space are “terribly overpriced” and that “a couple of them look and feel really well, but most of the labs couldn’t afford it.”

Another player in this market is hc1.com, one of the options the Compass Group considered. Castle Medical, a toxicology laboratory in Smyrna, Ga., that focuses on serving clinicians who specialize in pain management, uses the hc1.com cloud-based offering to manage its relationships with its physician customers. One aspect of the hc1.com offering that especially appealed to Castle Medical was its capability to deliver specialized reports to physician clients.

Castle Medical wants to help its physicians gain an overall understanding of how compliant their patients are in taking the opioid painkilling medications they are prescribed, as opposed to diverting them or otherwise misusing them.

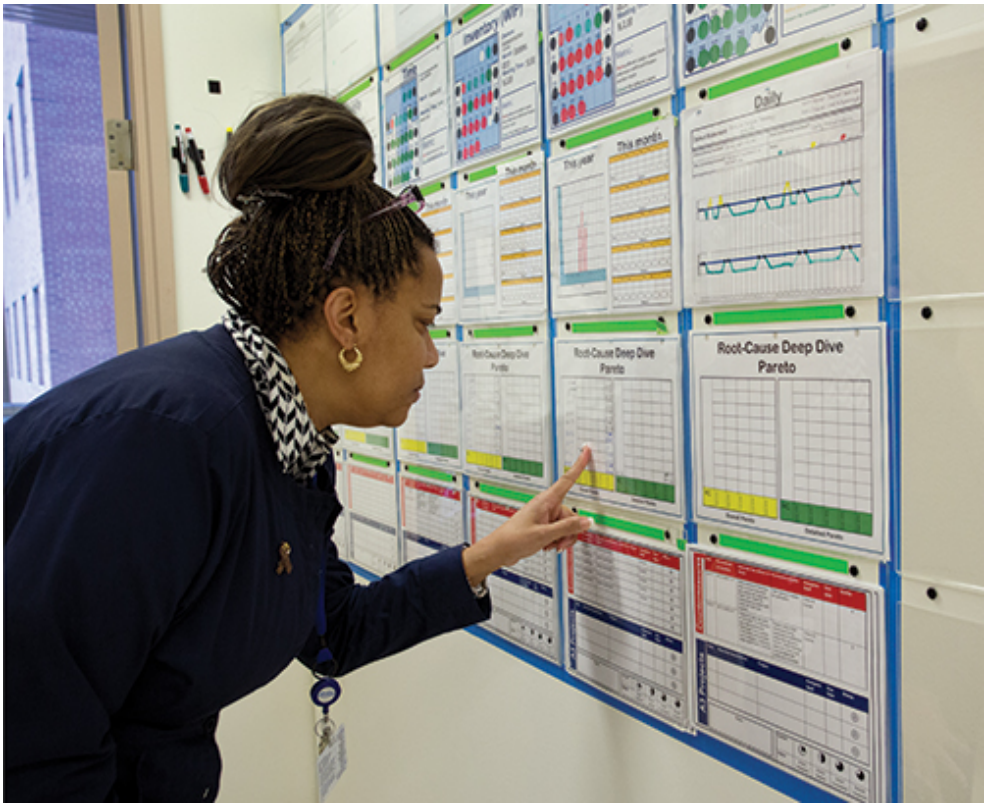
“hc1 is helping us lead the way in this,” says Robert Mitchell, the laboratory’s president of sales. “We can report back to the practice: Hey, your patient panel is 50 percent compliant with the meds you’re prescribing, and here’s how that compares to the data pool in your region where it seems that you’re average or out of range. Maybe you need to test more frequently, or perhaps you’re below range and don’t need to test as often. That way, we provide the analytics so physicians can make a better decision on how to treat their patients.”

The plan is to provide the reporting to all clients beginning in the first quarter of 2016, along with a physician access portal, Mitchell says.

“What the analytics gives is a personalized approach to medicine. It’s not just risk assessment. It’s constant monitoring of your patient base. There’s always an inflow and outflow of patients, and your practice is always changing. What works for you in Q1 of 2016 may not work in Q4. Your patients may be superbly compliant in the first quarter. But what if you’re now dealing with a different group of patients with a higher risk of diversion or abuse? That’s what hc1 provides—real-time analytics so you’re never letting that pendulum swing too far one way or the other.”

Mitchell acknowledges the hc1.com offering is “definitely in the upper end of the [price] range, but the bottom line is an old adage: you get what you pay for.” He says the analytics tools, combined with customer relationship management features that go well beyond a “glorified Rolodex,” make the product worth the price.

“You don’t step over dollars to get to pennies,” he says. “You’ve got to invest in the right stuff.”



At Henry Ford, some analytics-driven tasks get a helping hand from ink and paper. Manager of anatomic pathology Anna Harris Shaw peruses part of the laboratory's Daily Management System board, which displays lab operation status and improvement efforts.

The consensus among those diving headfirst into the world of laboratory analytics is that these tools can reveal useful and sometimes surprising nuggets of gold otherwise buried in mountains of undifferentiated data points. Another point of agreement is that sucking up the data and analyzing it, while altogether necessary, is far from sufficient.

"In terms of analytics software, there are a lot of products out there, but they are not really being used super effectively," Dr. Brimhall says. "They are being used to write simple reports in a lot of cases. But we don't know the extent to which those reports are driving projects that lead to cost savings or quality improvement."

In October, Dr. Brimhall led the first in a series of intensive, multiday training sessions dubbed the Orchard School of Medical Analytics. The training session will be offered again in April and June of 2016. The idea is to help laboratory professionals expand and integrate their analytical work and put into action what they may already be doing with analytics.

"People are just not getting the help they need to make meaningful analytics projects work in the organizations where this software has been purchased," Dr. Brimhall says.

Dr. Sharma, of the Henry Ford Health System, strikes a similar chord.

"It's great to buy these solutions and get some data, but where's your governance mechanism to do something about that information?" he says. "No one can sell you that. You have to do that hard work yourself, and create it in collaboration with your other clinical departments."
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Kevin B. O'Reilly is CAP TODAY senior editor.