

Laboratory 2.0: Changing the conversation

Kevin B. O'Reilly

July 2016—Bundled payments, physician employment, and unconventional competitors are cannibalizing the volume-based business model that for decades has defined laboratory medicine. And labs have little room within their customary confines—the three percent of health system spending they directly account for—to play a central role in American medicine's transformation.

TriCore Reference Laboratories CEO Khosrow Shotorbani, MT(ASCP), put the matter succinctly to a group of laboratory leaders and other health care experts who met in Santa Fe, NM, this spring to tackle the conundrum of how to move from volume to value.

"The question is," Shotorbani said, "how do we survive in the future? If there is no margin, there is no mission."

Altering the discourse and, ultimately, the practice of laboratory medicine is the ambitious goal of the invite-only brainstorming sessions among two dozen heavy hitters in health care. The think-tank-style venture, dubbed Project Santa Fe, includes leaders from five of the most innovative clinical laboratory operations in the country: TriCore; the Henry Ford, Geisinger, and Kaiser Permanente Northern California health systems; and New York's Northwell Health (formerly known as North Shore-LIJ Health System).



Shotorbani

The project brings to mind the R&D that took place just 30 miles away in Los Alamos, NM, where more than 70 years ago the scientists of the Manhattan Project raced to beat the world's totalitarian powers in developing a nuclear weapon. Project Santa Fe participants, too, see themselves in a contest where time is of the essence. What's needed to beat the clock before fee-for-service dies, they say, is an enterprising, aggressive strategy that aims for a wholly new understanding of the laboratory's role in medicine. Call it lab 2.0. That is the term Shotorbani uses.

"The lab of today is by no means in a position to deal with the world of value-based health care," he tells CAP TODAY. "The laboratories of the past focused on patient service centers, the cost per unit, their turnaround time, their contribution margins, and their test menus. We think that lab 2.0 should focus on cost per care episode or cost per population, moving from volume to value. That requires a whole new business model. . . . That's not just going to require grabbing something off the shelf and you're there. It will be a significant challenge to move from this model to the other one."

"When we talk about value, it means people being willing to pay for outcomes, not just for efforts," Shotorbani added. The big problem, he said, is there is precious little capacity for laboratories to improve and create health care value within the domain over which they exert direct control.

"The laboratory industry is reaching Six Sigma performance in the analytical stage"—3.2 defects per 1 million transactions. "That's almost perfect. The sad part is that on the preanalytical we do a lousy job of really helping the physicians choose the right test. And on the back end, we do an equally poor job of helping them interpret the test and to map it onto the next stages of therapeutic treatment," he said. "Our current payment is tied to the

analytical stage, yet our customers are moving toward pay for performance.”

Physicians do not follow up on about six in 10 outpatient test results, and tests are overused about 30 percent of the time and underused about as often, Shotorbani noted. Tests are misused between five and 50 percent of the time, he said, depending on the disease. He cited a Sept. 27, 2010 *Wall Street Journal* article, “What the Doctor Missed,” that drew together research showing that physicians’ failure to order the right test is a contributing cause in 55 percent of costly, often deadly medical errors. Clinicians’ incorrect interpretation of diagnostic tests is a factor in nearly 40 percent of malpractice cases.

“One of the opportunities,” Shotorbani said, “is a continuous diagnostic process.” That is, laboratories should vigorously seek moments in the continuum of care where they can—through use of their clinical data and expertise—intervene to help clinicians achieve better patient outcomes while improving the bottom line.

“What if,” he asked those gathered in Santa Fe, “we could bend the cost curve and reduce diabetes by 10 percent? Because that’s a very labor-intensive condition, right? We spend over \$240 billion annually on diabetes. In contrast, we spend about \$31 billion repairing our roads.”

If laboratories could use their data to predict health trends across payer populations and enable clinicians to target interventions, Shotorbani said, they would be providing value that lies outside the three percent spent on laboratory services and reaches deep inside the other 97 percent of the country’s medical expenses.

“This is our net worth—three pennies out of each dollar that we spend in health care,” he said. The choices facing laboratory medicine are to squeeze more value out of that three percent—“which is impossible,” Shotorbani said—or to work in concert with clinicians, health care providers, and payers to slash the estimated 30 percent of all health spending that is wasted.

“If we do nothing, we will be heading toward the cliff of a subsidy model, and we all know subsidized organizations don’t have a sustainable business model. If we stay in the lab, we will die as a lab, from the business model perspective,” Shotorbani says.

The spark behind the think tank meeting is “that we don’t have a current playbook on how to do business under bundled payment or under accountable care,” Shotorbani says. But he has well-formed notions about the shape that playbook may take, based on the work he and his TriCore team have done already. Project Santa Fe’s other participants also showed how their clinical laboratories have harnessed the power of laboratory data to change care in ways that cut costs or bring in revenue for their organizations.

“The value proposition is different than what the traditional lab outreach has been,” Shotorbani says. “Instead of saying, ‘We perform 1,700 different tests at a certain cost per unit, and contribution margins,’ we now can say, ‘We can identify where there are high-risk patients and where there are patient care gaps.’ This conversation is very different, and how we get paid has to be different.”

The mission statement the group agreed on says that Project Santa Fe “will be a coalition of like-minded national leaders and reputable institutions in laboratory diagnostics, coming together to create and help drive the new frontiers that will define the future economic valuation and placement of our diagnostic services. This think tank will innovate a new CPT-neutral and disruptive ‘value’ paradigm, safeguarded by shared intellectual property.”

The inaugural meeting of Project Santa Fe was such a success that its participants immediately agreed to reunite next spring. The first item to come out of the project will be a white paper on the strides these laboratories have made in creating health care value. Participants agreed to give CAP TODAY, whose publisher attended the Santa Fe meeting, a peek at these next-level achievements and talk in detail with this reporter about how they were accomplished.

Robert Michel, editor-in-chief of *The Dark Report* and principal organizer of the Executive War College and Lab Quality Confab meetings, was invited to monitor the group’s sessions and toss in his questions and insights.

"It's my sense from sitting in on these discussions that this is a group of laboratory leaders who have observed how slowly the profession of lab medicine has responded to a lot of very strong signals in the health care marketplace," he tells CAP TODAY. "They have volunteered, if you will, to create a tight little working group to identify opportunities for labs to demonstrate clear value in ways that would bring the financial solvency laboratories need to operate and establish a recognized role for pathologists, clinical chemists, and laboratory scientists in how health care providers draw upon their knowledge and expertise."



Michel

For years, pathologists and laboratory professionals have "pointed out the health care system fails to leverage the true potential of laboratory testing to dramatically improve patient outcomes while contributing to significant reductions in the overall cost of care," Michel adds. "My impression of the Project Santa Fe team is that they'd like to change the status quo."

Readers might use the metaphor of being the point of the spear. If we can bring together a small group of very credible players who are motivated to be innovative and to go on the record with their successes and setbacks, they can be the point of the spear and create the opening for laboratory medicine to assume that wider role that pathologists have discussed from the podium for decades."

One essential point that Project Santa Fe's leaders seem to grasp, Michel says, is that their message must reach well beyond the laboratory arena to other stakeholders in health care policy and payment.

"If their innovations, and the data that supports the outcomes that result from their innovations, are to change the status quo, then they need to address the central health care decision-makers," he says. "This will involve having the results of these initiatives that use laboratory testing to higher effect published in prominent peer-reviewed journals and presented at the meetings that hospital and health system administrators attend so they understand the power of the resource that the clinical laboratory and the anatomic pathology lab represent."

But will all this talk in Santa Fe translate into industry-shaping change?

"This ad hoc working group represents some of the most respected health care systems in the United States," Michel says. "That gives them the potential to be effective change agents if they realize the high goals they have discussed in this first get-together."

While most of the Project Santa Fe discussions targeted the role clinical laboratory data can play in creating value, anatomic pathology also had a place at the table in the person of Jeffrey Prichard, DO, director of surgical pathology at Geisinger Health System. He demonstrated how the AP quality management system implemented at Geisinger saved more than \$150,000 in labor costs between 2009 and 2015 and slashed at least \$1 million in care costs by resolving diagnostic reporting bottlenecks.

When it comes to improving quality management and, concordantly, creating value, Dr. Prichard and his AP colleagues are "constantly trying to play catch-up," he said. "There's value in the CP data. It makes us important. I want to make AP important. That's what I care about."

For too long, the AP approach to quality management has consisted of "the bare minimum to pass an inspection," he said. "You know, once a year you get together and of a dozen things, maybe one of your clients says, 'You're not so good at this.' You put it on the list for next year. We'll monitor it for you. That's all we do in AP and I'm

embarrassed.”

So Dr. Prichard and his colleagues set out to “find a new paradigm” that would allow frictionless monitoring and quality feedback on the many hand-offs in AP, from patient to clinician, through the laboratory’s process and back.

In 2007, Geisinger started developing a homebrew add-on to the Cerner CoPathPlus AP laboratory information system. Dubbed QA Tracker, the Web-based tool went live in 2009 and offers professionals at each step in the AP process the opportunity to report problems through a structured modality.

“What’s happening is the quality data in AP is something called crowdsourcing,” Dr. Prichard said. “I can’t find it, but everybody there knows what makes their day not work. They know what makes my specimens stop somewhere in the process. So, in histology they say if those grossers would cut their placentas thin enough, it wouldn’t explode in my water bath after processing, and I wouldn’t have to reprocess it and it wouldn’t stop the specimen.”



Dr. Prichard

Dr. Prichard and his team made it easier for each member of the AP lab to report problems as they arose by developing multiple-choice, drop-down lists that they could use to quickly tag the issue and bring it to management’s attention. The reporting process is similar to the way TV viewers voted for their favorite performer on *American Idol*, he said. “The more you vote, the more chances my management team is going to help fix your life. It’s not hopeless anymore.”

Over the years, more than 70,000 reports have rolled in from all areas of the AP laboratory.

“We are now monitoring hundreds of issues across the preanalytic, analytic, and postanalytic phases of testing,” Dr. Prichard tells CAP TODAY. “That’s something we could never do before.”

The process is dynamic because users can request a “rework,” he says.

“That’s where the issue occurs and you can stop the testing process. It sends a message back to the section of the laboratory that has the ability to fix the problem and get the case moving along the testing process again. In the past, that would have happened with a phone call or multiple phone calls in multiple buildings. The error would happen 1,000 times, and there would be a phone call every time. Now I know I can get the case moving again without management having to get involved.”

Nearly 30 percent of issues are resolved in real time using QA Tracker, meaning no phone tag. “We now get the problems fixed right away, but management still knows why they are occurring,” Dr. Prichard says.

At a weekly meeting, Dr. Prichard and each AP section head gather to analyze QA trends. The problems are broken down by department, specimen type, and more, and presented in pie chart form for at-a-glance understanding.

“Each of the section heads tells me what’s been working in their lab for the last week, and what’s not working,” Dr. Prichard says.

The data can be sorted by labor cost, diagnostic delays of more than half a day, and potential severity of harm to the patient. To deal with the frequent preanalytical problems that arise—for example, no clinical history on a requisition—the system can automatically send a message to the client services department “so they can get the

missing information and get the case working again,” Dr. Prichard says.

“This allocates customer care to the site and it saves us the work of having to call them and redo the form correctly,” he adds. “With that process of targeted re-education, we were able to decrease these kinds of rework cases from 450 quarterly to less than 50.”

In dollars and cents, the biggest improvement that QA Tracker has made possible relates to timely delivery of AP reports. Before QA Tracker, delayed reports were a problem.

“We drill down into it, and find out it’s an error in my report router,” Dr. Prichard said. “We fix that problem, and we drop \$10,000 in labor savings and 800 days of delayed reports.”

But what was the real value of avoiding all those diagnostic delays? About one in five delays is related to inpatient cases. And if just 10 percent of those tardy inpatient reports caused a single day’s delay in treatment, “at \$4,600 a day for a surgical patient, that’s a million dollars a year I saved the system,” Dr. Prichard said. “That’s when I got attention. As soon as I got that, this is when the rest of the [health] system said, ‘We want it too.’”

The plans are to expand this crowdsourced quality management system to other areas of the hospital.

“If we’re talking about where is the value, the value isn’t in efficiency,” Dr. Prichard said in response to a question at the Project Santa Fe meeting. “Prevention. That’s going to save money.”

“I do see this as a new value we can market,” he added. “We are information managers; we aren’t just about lab data. And we can create systems that monitor information and manage processes. And I’m now marketing myself to my system as that type of information manager to improve everything else. It’s a skill we have [in the laboratory] since we’ve been doing it so long.”

A powerful example of how laboratory data can be expertly used to improve patient care, increase revenues, and cut costs was provided by James Crawford, MD, PhD, executive director and senior vice president for laboratory services at Great Neck, NY-based Northwell Health.



Dr. Crawford

He and his colleagues have implemented a systemwide clinical decision support alert for acute kidney injury that increased by 75 percent the number of AKI cases spotted over the course of a year. That secondary inpatient diagnosis of acute kidney injury can be added to the bills the hospital sends to payers, and adds an average of \$700 in hospital revenue per patient. The new lab-driven system increased monthly secondary diagnoses of AKI from an average of 615 in 2014 to 930 in 2015. That adds up to an estimated \$220,500 monthly jump in revenue for Northwell Health, a nearly \$2.65 million annual increase.

The acute kidney injury undertaking is “what we [in laboratories] need to be doing,” Dr. Crawford says. “We need to break through this looking glass and be on the other side. . . . It’s hard to get going in this space. But once you get going, you realize how little you’ve done and how much you have to do.”

The work usually cannot be done alone, he adds, noting that the idea to target AKI came from Gerard Brogan, MD, chief medical officer at Northwell’s 250-bed Forest Hills Hospital, “a very busy community hospital serving the middle of Queens, and the hypothesis was that Forest Hills should be a place where we should look to see if our patients had AKI.”

The effort picked up steam in July 2013 with the hiring of full-time pathology informaticist Tarush Kothari, MD, PhD.

"I told him, 'You have a completely unscripted job. You need to put a face on pathology and informatics for the health system. There's people who want to work with us. Find them,'" Dr. Crawford said. It was Dr. Kothari who did the programming work to make the AKI alert a reality.

Acute kidney injury affects between five and seven percent of inpatients, and most of those patients are treated by non-nephrologists who may be slow to make a diagnosis that relies on noting an incremental uptick in hospitalized patients' creatinine values over baseline. The diagnostic criteria are complex and hard to apply without clinical decision support, Dr. Crawford said, yet AKI increases hospitalized patients' mortality rate between six- and 30-fold.

"A modest literature indicates that there's a substantial increase in hospital mortality, increased transition to chronic kidney disease is substantial, and a substantial increase in hospitalization costs," said Dr. Crawford, who is also chair of the Department of Pathology and Laboratory Medicine at Hofstra Northwell School of Medicine in Manhasset, NY. "So, if you scale this up, it is on the radar screen for health care costs in the United States."

AKI increases the average length of stay between three to seven days, and hospitalization costs rise between \$4,000 and \$10,000 per day per patient, he noted. Acute kidney injury costs the U.S. health system \$10 billion a year.

Yet laboratory data can help greatly, because delta creatinine detects 99.8 percent of all AKI patients. That means a 50 percent rise in creatinine, according to the relative criteria, or an absolute 0.3 mg/dL increase from the prior baseline minimum value. This has better sensitivity and specificity than other clinical criteria and can be applied in routine hospital practice. At Northwell Health, once the delta criteria are met, an AKI electronic alert is fired to prompt clinicians to act on the rising trend before the creatinine value goes outside the reference range.

During a six-month pilot project in Forest Hills Hospital in 2014, the AKI alert was triggered in 2,350 patients. The alerts were fired an average 6.3 days after the baseline creatinine was measured, and the average rise in creatinine was 1.02 mg/dL. Dr. Brogan and his team committed to rounding on these patients and monitoring their hydration status to avoid injury, finding 20 patients a day at risk for AKI. That amounted to about an eight percent incidence rate of AKI at the hospital, Dr. Crawford said.

While 87 percent of the cases were for stage one AKI, which is mild, the other 13 percent of patients had severe acute kidney injury, he added.

This early-warning system for AKI helped physicians intervene in a more timely fashion. Using literature estimates of a two-day drop in length of stay per case for patients treated quickly for AKI, the imputed annual savings at Forest Hills Hospital alone were \$875,000 based on 2,190 avoided hospital days.

The program has been rolled out to the other nine hospitals in the Northwell system, with similarly impressive results.

"Since we began this, it includes daily AKI reporting and an education program for physicians," Dr. Crawford said. "We don't have rounding teams now because physicians are notified directly. The alert also goes to the chief medical officer's office, but it's the clinicians' responsibility to respond to this."

Dr. Crawford said the Northwell Health experience illustrates a key point about laboratories' strength in creating value in health care. "We can roll out innovation and better health care across systems faster than everybody else, and we can do it at no cost. This didn't cost the health system anything."

So all that extra revenue and all those costs averted accrued to areas outside the laboratory, but who pays Dr. Kothari and the other informaticists? The laboratory does.

"We are doing this on spec," Dr. Crawford says. "Our angel investor for this work is our in-system core [reference] laboratory. The investment in laboratory informatics gives our core laboratory a place in the sun—the ability to continue to be a preferred laboratory. But without attribution of downstream benefit to our laboratory, this will continue to be on spec."

"I am glad we made this investment on our dime, because the old game is going away. We must get far ahead of the changing times to continue to justify our existence as a laboratory. But we must also close the gap between what my health system leadership holds us accountable for right now—financial value on our three percent of the spend—and getting credit for the value that we deliver to the other 97 percent of the health care spend," Dr. Crawford says.

Northwell Health's pathology department now has four board-certified clinical informaticists. Three more will sit for the board certification exam this fall.

"You could argue that pathology is all about strategic information management," Dr. Crawford says. "For our pathologists and our laboratory management, it's about the massive data streams that have come out of the automated laboratory and all the subspecialty laboratories. The managers and the supervisors and even the floor people need to be able to take advantage of this."

As for how Project Santa Fe plays into all of this, Dr. Crawford drew on his 26-year experience with an annual small-group meeting of liver pathologists to encourage a similar brainstorming approach to laboratory transformation in a value-driven payment model.

"We're grasping at something that's almost in our hands but is not quite there yet, which is the ability to do this kind of work on the broad canvas of American health care," he says. "We need to diversify our concept of what our responsibilities are as laboratory professionals—not just the doctors, but the entire laboratory professional workforce."

Dr. Crawford sees Project Santa Fe acting as a high-profile way to disseminate these successful ideas. "Acute kidney injury is a perfect example," he says. "We could have it going at each of these health systems by Sept. 1." The in-person Santa Fe meeting has been followed by weekly conference calls with one to two representatives from each organization participating to further the project's mission.

"This AKI project has captured everyone's imagination, but the question is how many other things are there like that?" he asks. "Even among the five of us, we can come up with a group of pilot projects and use Project Santa Fe to propagate them from a communications standpoint or, even better, use the project to demonstrate the work at multiple health systems."

For Gaurav Sharma, MD, the laboratory's role in health care is analogous to that of a military transport plane that has the additional capacity to refuel fighter jets in midair, thereby extending the jets' range and capabilities.

"We have a repository of data in the laboratory. We can reduce cost, we can improve outcomes, and then we create value. But what we cannot do is stay a transport plane. We have to upgrade to new capabilities," said Dr. Sharma, senior staff pathologist and director of the Henry Ford Regional Medical Laboratory. He envisions a future in which the laboratory, as a repository of clinical data, will refuel its users with actionable information and direct them to the problem spots, increasing their effectiveness.

"This is about systems more than people," he said.

Dr. Sharma detailed a plethora of such systems Henry Ford has put in place, nearly all marked by the cross-disciplinary collaboration needed to cut cost and increase revenues. The first is a laboratory testing formulary workgroup co-led by pathologists and clinicians. Since its inception, they have reviewed 38 send-out and esoteric tests, especially molecular and genetic tests, and avoided \$15 million in potentially unnecessary costs.

"Because it's a systematic process, the clinicians trust us because they have an equal say in this," Dr. Sharma said. "We go through cost-effectiveness, we go through guidelines, and so forth."

The formulary group also has a task force that focuses on more routine inpatient and outpatient tests and implemented laboratory review of order sets and eliminated daily lab orders from the system.



Dr. Sharma

"And this is not through education," Dr. Sharma said. "This is by eliminating the option—and that is more convenient than telling the people, because telling is not understanding." Now the laboratory, because it has engaged so heavily, is "getting a vote on what should be on an order" in the Epic system.

Henry Ford's laboratory leaders worked with clinical colleagues to show the value of MALDI testing in microbiology. "We actually looked at the outcomes," Dr. Sharma said.

After showing that MALDI decreased turnaround time from just under four and a half days to less than two days, "we actually figured out what was the monetary value of this drop." According to the laboratory's clinical collaborators, in just *Candida* septicemia, one inpatient day costs \$4,100, and the faster TAT led to an average of nearly five fewer days in the hospital, almost \$20,000 saved per patient and \$1.1 million saved each year.

"These figures have been in our system for three years and they have not been disputed," Dr. Sharma said.

Laboratory leaders also worked with pharmacy colleagues to show "the downstream impact that we render in selecting patients," he said, noting how testing for *EGFR*, *ALK*, *BRAF*, *HER2*, and *KRAS* helped properly target cancer therapies. "We influence decisions of up to \$50 million a year based on one molecular lab."

Dr. Sharma explained how he and his colleagues spotted the trend that physicians at one hospital in their system persisted in ordering a third troponin test even after the first two were negative.

"We know that providers order multiple serial troponins just to be safe," he tells CAP TODAY. "But after you've had two negatives and the patient is stable, that patient can go home unless there's something else you need."

Clinicians objected, raising concern about potential complications.

"This is the No. 1 issue," Dr. Sharma said in Santa Fe. "The provider says, 'It's not my job to look after it, and it's not your job either. Who are you to tell me?' Well, they are right. We should not meddle into medical decision-making right there with the patient, but we can make it easier. So let's have them collaborate so that you and I can have a conversation and agree, or agree to disagree."

To resolve the matter, Dr. Sharma and his colleagues ran the numbers.

"We said, 'Let's look at the data.' So we mined all our data and found a variation between the different hospitals. Our largest community hospital had a far higher utilization of more than three troponins. So we said, either they have a very different patient population or they're overusing it at that particular site."

Out of 10,000 extra troponin orders, there was only one patient that order may have helped. All those extra tests at Macomb—nearly 2,000 more third troponin orders than the next highest hospital—had a financial impact on Henry Ford because they meant that patients stayed longer in the emergency department before being

discharged.

"It was 3,500 hours of extra stay at that hospital versus 1,300 hours of extra stay at the other hospitals," Dr. Sharma says. "ER stay is very, very expensive."

It turned out Henry Ford clinicians are not especially enamored of running unnecessary troponin tests.

"The specific hospital had some defective order sets in their EMR," Dr. Sharma says. "Systematically, we were setting them up to over order at this site. So we made changes in the EMR."

Then the ordering patterns came into line with the other hospitals in the Henry Ford system.

"If you look at this in a volume-based world, what we did actually cut our feet out from underneath us," Dr. Sharma notes. "But by doing so we are actually impacting patient stay and system costs. If you do a collaboration, sometimes you will lose on paper and sometimes you will gain, but eventually everyone wins. The laboratory cannot do this alone."

Back at TriCore, the innovation is coming in the area of population health through what the laboratory dubs targeted intervention modules. These are real-time, disease-specific dashboards that propose actions that patients and their physicians can take, and feature alerts about significant events such as emergency department visits, hospitalizations, and other changes in the patient's condition. Using its vast store of New Mexico clinical laboratory data, for example, TriCore is able to tell that there are more than 85,000 people with prediabetes in the state and more than 17,000 patients with uncontrolled diabetes.

TriCore chief medical officer Michael Crossey, MD, PhD, said his organization can provide three to five key laboratory indicators for major health conditions such as autoimmune disorders. For a health plan's newly enrolled patients, the laboratory can identify, for example, how many have uncontrolled diabetes, have been newly diagnosed with hepatitis, have acute or chronic renal disease, are at risk of cardiovascular disease, or have a record of a positive pregnancy test but no fetal screening. That last item poses a huge target for savings, with a normal birth costing the state \$827, while a baby born with complications that could have been detected or prevented with timely screening costing New Mexico more than \$14,000, Dr. Crossey said.

Each of these is an opportunity to prevent costlier episodes of care downstream, Shotorbani tells CAP TODAY.

"We are using different laboratory tests to drive different outcomes. We are focusing on how to reduce the latency effects through use of lab data to conduct risk stratification of populations. With routine tests such as A1c, creatinine, urine albumin, and lipids, we can do a risk stratification around diabetes and its complications around chronic renal failure and cardiovascular conditions. Under our new business model, we now become the meteorologists of disease management. We can predict what type of disease storms are heading toward our health systems and health plans by using a heat map."

Shotorbani says TriCore's experience with its pilot projects is that payers "are willing to pay above and beyond what's in the fee schedule" when the laboratory can demonstrate how its data can be used to target interventions and avoid big claims later on, such as ER visits or hospitalizations.

"We're developing lab 2.0 as a business model that basically takes the current lab data and converts it into new ways of doing business," he says.

Shotorbani says the Project Santa Fe white paper set for release later this year should highlight work "that will be publishable in peer-reviewed journals, and I strongly believe it shouldn't be just in laboratory venues." That means research will focus on patient-oriented outcomes rather than testing science or analytical stage improvements.

"The whole \$70 billion clinical laboratory industry is based around this: order in, result out," he says. "That could be completely disrupted and changed. And the laboratory community is saying I can't produce value until I get an order in, yet we are sitting on a massive biobank of data that has actionability, predictivity, and a vast footprint."

Shotorbani says the pressure is on leaders in laboratory medicine to make the first move in working with payers to demonstrate the value they create in the stream of medical care. This is why Project Santa Fe exists.

“Collaboration between payers and providers is going to be essential,” he says. “Their economic risk exposure is just as big as ours. They also feel like they are going to be irrelevant if they don’t change their business model, and their model also is under a lot of pressure in terms of managing their risk. If we as providers do not take proactive measures, with a new, measurable value proposition focused on clinical outcome and total cost of delivery, then payers will be forced to just basically grab the old capitated fee schedule and relabel it as value-based payment, and that would be a sad day for our entire industry.”

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