Labs Can Earn Revenue Through Data Analytics

➤**By working with a healthcare data integrator, labs have an opportunity to be paid for lab data**

➤➤*CEO SUMMARY: There is a new buyer for lab test data, creating an opportunity for labs to build a new revenue stream. Medivo, Inc., of New York, describes itself as a healthcare data analytics company whose mission is to unlock the power of lab data to improve health. It works with clinical labs and pathology groups to de-identify and integrate lab test data. Then, in a healthcare "big data" effort, Medivo does advanced analytics in collaboration with client pharma companies and health plans.*

CLINICAL LABORATORIES ARE SITTING on a vast reservoir of useful, marketable data. They have a problem finding a way to properly package this information, then sell it to an interested buyer.

"There is tremendous value in lab test data because pharmaceutical companies and health plans are interested in using insights or intelligence derived from the data to improve healthcare quality, patient outcomes, and reduce costs," stated Jason Bhan, MD, the Executive Vice President and Chief Medical Officer of Medivo, a healthcare data analytics company.

Medivo works with labs to de-identify and analyze lab test data to develop solutions that improve patient care. In a recent press release, Medivo stated that it has "access to over 150M patients through its nationwide network of partner labs."

By creating a marketplace for advanced analytics solutions based on lab data, Medivo is putting buyers—pharma companies and health plans—together with sellers—clinical laboratories. What Medivo does is not something any clinical lab can do by itself, at least not yet and not easily.

"Any individual provider of clinical data has a difficult time in the market. whether it is medical labs or someone selling data from electronic medical records," explained Bhan. "Because a single provider only has a small piece of the pie, it can't provide enough value.

Negotiating for Value

"This problem for individual labs is our opportunity," he continued. "We work with many labs to de-identify and aggregate their data specifically so it can be analyzed and commercialized. That makes it both viable and desirable in the pharmaceutical market, for example.

"Without these capabilities and our ability to aggregate this clinical information into bigger pools of data, an individual lab usually can't sell its data directly into the pharma market," he added.

"But once we have de-identified and aggregated this data, we provide longitudinal insights that allow us to negotiate at the value level," noted Bhan. "In this way, we are opening up a new market for lab data, which all labs already have on hand.

They simply need a way to extract additional value from it."

"For individual labs, extracting value is difficult because even the two biggest labs in the United States have data from only 25% of the healthcare market," he said. "If there are 6,000 labs nationwide, that's just too many small pieces of the pie to make a difference, but together it is an opportunity for the lab industry to benefit as a whole.

➤Data for Cost Control

"Pharma companies are looking for data that covers 50% to 60% of the healthcare market and they do that by putting the data sets they have together with other sources, including lab data," Bhan said.

"Now here's the fascinating part of the story for labs," he added. "Clinical labs already possess data that have substantial value for pharma companies. The data with the most value to pharma tend to be that which has the most value in the healthcare system. Oncology and molecular diagnostics are good examples because cancer is expensive to treat and molecular diagnostics are high-cost tests.

"Any high-cost test, drug, or treatment that tends to drive up the overall cost of care is a target for better utilization in the healthcare system," said Bhan. "That's because improved utilization of such tests, prescription drugs, and treatments have the potential to save the most for pharma and payers.

➤Market For Clinical Data

"But the market for clinical data is not limited to high-cost care," he added. "There are many diseases, such as diabetes and high cholesterol, that drive up healthcare costs and therefore there is interest among pharma companies and health plans for data on these patients. Pharma companies also are interested in data from chemistries, such as hemoglobin A1C tests, and uric acid tests.

Clinical Data Integrator Can Guide Patient Care

ONE EARLY EXAMPLE of using big data to improve patient care is happening at Medivo, a healthcare data analytics company. It uses de-identified data from many sources, including clinical laboratories and anatomic pathology groups, to identify opportunities to help clinicians deliver better patient care.

"One of the best examples we have involves patients with chronic myeloid leukemia, or CML," stated Jason Bhan, MD, Executive Vice President and Chief Medical Officer of Medivo. "Patients with CML should be tested quarterly to monitor the progression of the illness and to assess how well the patients are doing with therapy.

"We look through large data sets from some commercial labs and specialty labs to evaluate the de-identified data while looking for patients who exhibit certain patterns in testing," he added. "We find, for example, that many patients are undertested for BCR/ABL, which is the biomarker for CML. From there, we could identify the physicians who were doing the under-testing. Those doctors then can be targeted for education.

"To date, our data has allowed us to identify 660 patients who had been in remission but were no longer in remission," Bhan continued. "So, we followed those patients over time with our lab test data to find ways to help their physicians get those patients back to remission again by switching their therapy.

"Those 660 patients show why pharmaceutical companies and treating physicians care about timely and appropriate lab testing," he stated. "They understand that regular testing of such patients allows physicians to identify which patients need a change in therapy sooner. This can involve an increase or decrease in therapy, along with identifying which patients need therapy restarted or switched."

"One area currently getting more attention is anatomic pathology," observed Bhan. "At the moment, the highest interest is in the early stages of disease, such as data from biopsies. When a lab has biopsy data, that can usually be the first clues that a patient has a disease. Pharma and health plans are interested in that data because generally, the earlier such a disease is diagnosed, the better the outcome for the patient.

"In cases where we have assembled sufficient sets of clinical data, we've seen that pharma and health plans are interested in value-based pricing because they are moving away from fee for service," he commented. "The value of such clinical data is substantial. This allows us to discuss with the health insurers and pharma companies how this will help them control costs while improving patient outcomes."

Clinical laboratories and pathology groups handling almost any volume of lab specimens will be interested to learn that their lab test data can be used to generate a new source of revenue. "Medivo has developed multiple ways to pay those labs that supply lab test data, one of which is revenue sharing. With revenue sharing, a percentage of the value of that deal goes back to the participating labs."

⮞Fully-Encrypted, De-Identified

To assist labs with their data strategy, Medivo uses Opal, which is its proprietary de-identification software. "We provide this solution to our lab partners," Bhan said. "Each of our lab clients will put HIPAA data into Opal, and out will come fully-encrypted de-identified data. That data then is transferred to us in a secure manner.

"The de-identification technology is important because we can use the software with different types of data sources, then marry that data together," he noted. "Use of the same de-identification technology on all these data sets has a big benefit. It allows us to put together complete pictures of patients—even though those patients may have bounced from one clinical lab to another and from one hospital or physician's office to another. Without the ability to combine data from those different sources, the data would otherwise be in silos at each of those sites.

⮞Analyzing Patient Care

"The idea is to be able to look at longitudinal patient data even though it's de-identified." stated Bhan. "By looking at longitudinal data, pharma companies and payers can piece together a patient's journey across multiple labs, multiple institutions, and multiple data sets. Then they layer it all together to view the patient's journey."

Anne Bentley, Medivo's Chief Marketing Officer, added that pharmaceutical companies have been using anonymized patient level data—typically claims and prescription data—for many years. "As an industry, pharma has used this data routinely over the years. It is now in their DNA to want to look at data longitudinally.

"If the data is incomplete in any way, pharma companies want to 'fill the gaps,' so to speak, and lab data can address that need," she continued. "And since lab data is often available earlier in the patient journey, it is of immense value to pharma and health plans."

"One challenge any data analytics company faces is volume," emphasized Bhan. "The more data you have, the more powerful analyses you can do. It also means that the data mining produces predictive analyses that are more powerful."

Bhan concluded by inviting labs to consider partnering with Medivo. "Any lab interested in realizing the full value of their data assets and preventing their data from being commoditized should consider working with us," he said. "Today, we have collaborations with labs that give us access to the lab data of 150 million patients.

Data Analysis Licensing Agreement for Lab Data Creates Opportunity for New Revenue Stream

ONE MAJOR LAB COMPANY NOTICED how Medivo Inc. was helping clinical laboratories and pathology groups generate new streams of revenue from de-identified lab test data. Last month, Medivo signed a nonexclusive licensing agreement with **Quest Diagnostics Incorporated.**

Founded in 2010, Medivo focuses on mining clinical laboratory data to develop advanced analytics solutions that help pharmaceutical companies and health plans manage care more effectively.

"Under this new agreement, Medivo will analyze Quest's de-identified patient data from 20 billion lab test results to identify patterns in test ordering and result values that indicate the need for intervention with patients or the need for physician education," stated Jason Bhan, MD, Executive Vice President and Chief Medical Officer of Medivo. "Data analytics helps labs to locate and quantify underutilization and opportunities for add-on testing.

"By analyzing lab test results, for example, we can identify when patients fit a certain profile," he explained. "Then we can notify our pharmaceutical partners that a physician practice has a number of patients who match a specific profile," he said. "For example, some patients may have chronically high levels of cholesterol, or the hemoglobin A1C values may be too high.

"Having this information gives our partners an opportunity to educate these physicians about the benefits of using the appropriate therapy before the physician makes a treatment decision," Bhan added. "In this way, our pharmaceutical company clients might bring a therapy to the attention of the clinician that may be more suitable than what that physician would typically prescribe.

"Here's how it works," he continued. "Medivo's clinical and data science teams have developed nearly 500 proprietary patient algorithms based on recommended clinical guidelines for certain conditions. By following these guidelines, Medivo can identify patients who fit certain profiles based on their lab test results.

"From there, we can match these de-identified patients with the medical practice where they get treatment," noted Bhan. "Then, manufacturers of these new medications can educate the physicians about their treatment options for these patients.

"Our analysis of the data also is important for physicians, health plans, and anyone interested in identifying gaps in care," emphasized Bhan. "When the data shows which physicians are responsible for any gaps in care, we report that information to our lab partners and pharmaceutical clients who have developed many different kinds of educational programs and outreach efforts to explain to physicians the need for more appropriate testing according to clinical guidelines. In fact, most pharma companies have whole divisions focused on developing educational tools aimed at ensuring appropriate utilization of lab testing."

"As pathologists and clinical laboratory scientists know, in the world of healthcare big data, the larger the set of data available for analysis, the more powerful our lab data discoveries can be," commented Bhan. "This is why pooling ever-larger quantities of lab data can create even greater value for the lab industry as a whole."

Clinical labs and pathology groups looking for new sources of revenue should investigate this opportunity to sell lab data. The agreement between Medivo and Quest Diagnostics is evidence that Quest saw financial benefit from selling its data. **TDR**

—Joseph Burns
Contact Jason Bhan at 347-862-9362 or jbhan@medivo.com.