

Transforming the revenue potential of Clinical Laboratory through Strategic Relationships

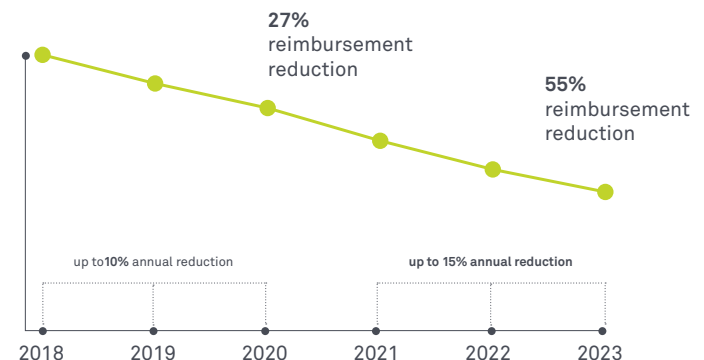
The challenging reality for health system laboratories

Improving the U.S. healthcare system requires the simultaneous pursuit of three aims: improving the experience of care, improving the health of populations, and reducing the per capita costs of healthcare. Health systems face a wide variety of challenges in achieving these Triple Aim goals. One area in which health systems may provide improved care while reducing costs is in optimizing lab testing services. Despite providing 60-90% of the clinical information in all electronic health records,¹ reimbursement does not reflect the value of hospital lab testing services. In fact, in a 2012 Frost & Sullivan survey, 67% of lab directors recognized hospital labs as cost centers, rather than profit centers.²

Operating as a transaction-based cost center, many hospital labs assume that improving test volume will improve revenue. But, in this era of value-based care, the imperative is not volume but rather test utilization management that contributes to optimal patient outcomes, while reducing the cost of care. Hospital labs are faced with several challenges that impede their transition from cost center to offering a profitable service.

First, reimbursement cuts under the Clinical Laboratory Fee Schedule (CLFS) deeply impact laboratories that depend on Medicare for an average of 20% of billings.³ Between 2010 and 2013, CLFS reimbursement rates were effectively cut by nearly 12%.⁴ In the worst case scenario, there could be a 27% total reduction after the first 3 years and a 55% total reduction after the first 6 years. (See figure 1.) New Medicare payment rates for clinical lab testing anticipated in January 2018 are likely to put even more pressure on hospital labs.⁵ While prices for outsourced medical lab services were projected to rise slowly at an annualized rate of 0.2% from 2014 to 2017, growing pressure from government and commercial

Figure 1. Impact of planned CMS payment rates



Source: PAMA and the Changing Role of the Laboratory in Accountable Care, ARUP Laboratories, Consultative Services, 2016

payers, as well as Medicare reimbursement cuts, has encouraged hospitals to consider ways to hedge against price fluctuations.⁶

Next, an aging workforce and a shortage of new talent entering the field present further challenges for hospital labs. Recent data from the American Society for Clinical Pathology show higher vacancy rates as well as higher anticipated retirement rates compared to just 2 years ago,⁷ as the number of new students graduating from clinical lab programs is declining.⁸ This poses the challenge of adequately staffing labs to operate at quality standards and maintain profitable testing volume.

Also threatening the lab's ability to generate profits is a proliferation of new technology. Next-generation sequencing for molecular diagnostics, for example, is driving increased utilization of expensive lab tests. Also, a new voluntary CMS program, Individualized Quality Control Plan (IQPC), has health system labs grappling with an entirely new quality control framework which demands significant time investment. Likewise, electronic health records and data integration projects are costly and resource-intensive. Together these challenges contribute to increased diagnostic cost of clinical care while keeping lab financial performance in the red. Consequently, many

health systems are evaluating the financial benefit of running their own labs versus alternative models.

Forming strategic relationships

The Economist reported survey results from more than 300 U.S. hospital executives that indicated a belief among 60% of respondents that their hospitals must substantially change their business models in the near term if they are to survive financially. These executives primarily cited outsourcing services as a core strategy.⁹ Indeed, health systems are looking across their enterprises to find areas of potential cost savings. Although aware that leading commercial lab service companies contract for testing and hospital lab management, some providers may be less familiar with the many additional services, expertise and technology advantages offered. By aligning with a commercial lab partner and investing in testing infrastructure, data capabilities, and clinical and operational expertise, the health systems may advance their Triple Aim objectives.

In recent years, hundreds of U.S. health systems and hospitals have formed strategic relationships to support and strengthen lab services. In 2014, the ratings agency Standard & Poor's highlighted the growing trend of hospitals to enter into more strategic relationships, such as joint ventures and lab management agreements, to improve efficiency and redirect capital away from labs to core clinical activities.¹⁰ The trend has accelerated as major lab companies such as Laboratory Corporation of America and Quest Diagnostics form deeper alliances with half of all U.S. hospitals they currently serve.¹¹ Commercial lab services companies, in return, have recognized the opportunity for mutually beneficial relationships that drive value for both organizations.

Principles of a successful relationship

Although each collaboration is unique in many respects, successful ventures have several principles in common.

Transparency and communication

First, a mutually beneficial arrangement relies upon customization and open communication. Each arrangement must be custom-designed to reflect mutually desirable goals and timing as every hospital or health system has unique capabilities, financial circumstances, organizational culture, and market conditions. Numerous other factors may be weighed when developing an optimal relationship strategy including facility size, payer mix, and workforce characteristics. To properly define these factors, the health system and commercial lab teams must openly share and carefully listen to one another's immediate and long-term goals. In part, mutual success hinges on access to high quality data that can facilitate prompt performance reporting to drive informed decision-making.

Infrastructure

Secondly, the infrastructure of both the health system and the lab services partner will play a defining role in the collaboration. The scale of services, solutions, and expertise within a commercial lab partner will directly impact testing costs and pricing. Research indicates that these economies of scale allow leading commercial lab services providers to perform testing at a significantly lower cost than hospital-based labs. An average sized hospital (300-500 licensed beds) can expect to save roughly \$15 million over 5 years by outsourcing lab services.¹² Likewise, a lab partner's investments in data analytics can provide invaluable insights for health systems regarding utilization management and patient health maintenance. For example, integrated lab data may indicate gaps in care where testing should be utilized for chronic disease and population health management. Data may also be applied to benchmark utilization patterns, aid in optimal ordering, or inform continuous quality improvement processes.

Faced with stiff competition in the marketplace, hospitals may not be able to invest in the necessary resources in new technology to keep pace. In contrast, the leading lab services companies operate state-of-the-art laboratories

employing a comprehensive portfolio of diagnostic instruments capable of scaling to meet high volume demand with reliable results in a consistent timeframe. In addition to equipment, the lab can benefit from access to and savings from an enhanced lab information system and hospital information system connectivity.¹³ In support of cost management strategies for esoteric tests, for example, a lab partner can provide valuable data analytics resources to help health systems decide which tests to keep in-house. In return, the commercial vendor may make use of the excess capacity within the hospital lab to perform some routine testing for its clients.

Engaging and retaining talent

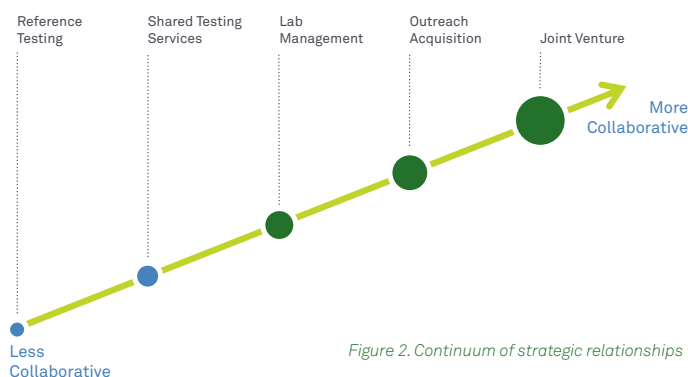
Lastly, the effective use of shared human resources can contribute greatly to a successful collaboration. Carefully crafted relationships can enable hospitals to maintain their highly valuable lab staff. In the case that a commercial vendor is contracted to manage the operations of the hospital lab, the health system may elect to transfer the employment of valuable employees to the lab vendor. Organization knowledge is maintained while the hospital benefits from access to vast clinical and operational expertise throughout the lab services company. Furthermore, a strategic relationship enables the 2 organizations to share staff at all levels, from technicians to thought leaders and scientific experts.

Types of value-rich strategic relationships

There is a continuum of possible strategic relationships between lab and health systems ranging from less collaborative contractual relationships based on price and service level to highly collaborative joint ventures which may involve shared equity or profit sharing. (See figure 2.) Even within these models, there are many variables that define each relationship depending on the needs of the health system.

Reference testing

At the lowest level of collaboration, health systems utilize lab partners to perform “send-out” reference testing to gain price advantages through volume



contracts. Regardless of the size of a hospital lab or the sophistication of its on-site testing menu, it likely sends some lab testing out to fulfill the need for esoteric testing. As a rule of thumb, hospitals realize additional benefits when they consolidate “send-out” tests with one commercial lab partner including: volume discounts on tests, outreach consulting to increase revenues, stronger negotiating power to enlist the vendor’s help in building your test library, and access to their clinical specialists for help.

Shared testing services

Most modern testing lab instruments are designed to handle a tremendous amount of excess capacity, beyond what most hospital labs require for in-patient tests. Maintaining unused capacity can result in higher testing costs and under-leveraged capital investments.¹⁴ A shared testing relationship can consolidate resources between the health system and the lab services provider to maximize infrastructure and improve logistics across a region. Furthermore, shared services enable hospitals to offer some rare tests that require specialized equipment which is generally cost prohibitive for individual hospitals. On the other hand, commercial labs find it economically feasible to offer these tests, because they can perform them for hospitals across the country. Because commercial labs serve a large market, they can invest in the most advanced equipment and training while also keeping their per test rates low. Reputable reference labs also excel at quality control, and can help hospitals to choose the best testing and reduce unnecessary costs.

One study found that about 26% of all orders for complex genetic tests placed with a commercial lab were changed on the advice of the lab's genetic counseling staff, saving the referring institutions about \$48,000 a month.¹⁵

Facilities of all sizes can benefit from collaborating in this way. Charlotte Hungerford, a 109-bed hospital in Torrington, CT, for example, sends esoteric testing to a commercial lab in Marlborough, MA, while routine testing is performed in-house. The commercial vendor, in return, uses the hospital's excess capacity to perform some routine testing for its physician clients. Though the lab services vendor employs the staff, runs the lab, and performs the testing, the hospital still handles billing. Savings attributed to this collaboration range from 15% to 17% due primarily to lower costs per test, while enabling Charlotte Hungerford to add high-complexity tests to its menu.¹⁶

Lab management

Lab management can provide health systems with an expanded range of services and tools to conduct testing and improve test utilization management. Beginning with reference work integration, a commercial lab partner can consolidate a hospital's existing reference work into a single testing network. In an outsourced model, the commercial lab generally performs about 30% of the tests received in a hospital lab.¹⁷ Pricing advantages are made available to the hospital through purchasing economies of scale for reagents, supplies, and equipment. Current hospital lab staff may be transitioned into an employment arrangement with the lab partner. Finally, leveraging advanced quality programs, such as Six Sigma methodology, the leading lab services companies can drive process change and continuous improvements to improve profit margins.

Forming a relationship that provides full-service lab management can help to mitigate the lack of capital needed to maintain up to date lab technology, much of which is replaced on a 5-year depreciation schedule.¹⁸ As compared to other strategies to delay capital outlay, such

as equipment rental and upgrades on used equipment, a relationship in which the lab services provider is responsible for capital investments may be more cost effective. Although the acquisition and depreciation of mature technologies like general chemistry analyzers is straightforward, health systems face greater uncertainty when obtaining the latest advanced technologies. A commercial partner, in contrast, can leverage its buying power to make state-of-the-art technology financially viable and reduce the learning curve for technicians. Value-added services such as these can reduce operating costs, allow a health system to take advantage of testing techniques that are not otherwise available, and better manage a surge in sample volume. It is estimated that hospitals can save between 10% and 20% on lab services by aligning with an efficient large lab services¹⁹ provider that can offer data analytics tools as well as the capital assets to identify and implement best practice guidelines.²⁰

Other benefits for hospitals from lab management services may include freeing up space that previously housed the in-house lab, access to the lab partner's utilization management systems, and the ability to retain valuable staff resources through a relationship in which the commercial lab company assumes employment of the hospital staff. This benefit is especially valuable as the growing demand for healthcare services increases the need for qualified lab professionals while the industry faces a looming staffing shortage.

Outreach acquisition

Outreach lab services are provided to local physicians and patients separately from hospital inpatient or outpatient care. Over the past decade, many health systems have expanded their outreach lab businesses to service physicians in their area, a move taken in lock-step with the growth of accountable care organizations which drives the hospitals to serve their communities outside the hospital walls. Lab services interact across the entire healthcare continuum, from outpatient pre-admission through the inpatient, acute care setting, and on to post-admission, whether that is rehabilitation, the medical

home, or a long-term care facility, positioning the lab to both improve patient outcomes and generate financial gains. The average hospital lab outreach program has grown over the past 15 years as hospitals received higher payments than independent labs for their outreach and outpatient work, increasing from \$10.6 million in the early 2000s to \$24.9 million in 2016.²¹ But that is changing as insurers reduced their reimbursement rates. Moreover, not all hospital labs manage their outreach program as for-profit businesses. According to a survey of outreach labs, only 26% of survey participants said their lab outreach program had been assessed for profitability, while 39% were unsure, and 35% knew with certainty it had not been analyzed. Furthermore, the survey suggested that additional weaknesses limited performance: approximately half of outreach laboratories did not employ in-office phlebotomists, many did not have full-time sales representatives, and nearly half have ineffective IT connectivity with physician offices.²²

Today, reimbursement pressures and the growth of high-deductible plans have placed a greater cost burden on patients and are forcing health systems to reconsider outreach lab strategies. The financial benefit of collaborating with a reference lab is especially relevant given the reduction in CMS payment for the top 25 high-volume tests.²³ Concerned about sustainability or health system outreach programs following Medicare fee cuts under Protecting Access to Medicare Act (PAMA), lab directors recognize the risk to a large portion of their labs' test volume.²⁴ National commercial labs offer health systems an opportunity to share or off-load financial risk before reimbursement drops to unsustainable levels.

Top health systems that have developed commercial outreach businesses are increasingly entrusting outreach lab services to commercial lab partners to gain the benefits associated with clinical expertise, state-of-the-art technology, and economies of scale. A commercial partner can perform a workflow assessment to evaluate a lab's operations and identify systems improvements. The partner may assume responsibility for the procurement

of supplies for testing, labeling, and transport, leveraging purchasing power that may far surpass that of the hospital. An extensive draw network, including patient service centers staffed with phlebotomists, physician office connectivity systems, and logistics management of specimen transportation are additional benefits of this collaboration.

Patients benefit through enhanced access to quality, affordable, and convenient lab services across the health system service area, delivered by a broad network of service centers and rapid-response clinical laboratories. Physicians gain the ability to order testing and consult with lab-based medical experts. The health system can expand its testing services to include advanced technologies such as next-generation sequencing and bioinformatics, which aid the detection of cancer, dementia, and other diseases. Furthermore, the arrangement creates a unique opportunity to collaborate in population health and data analytics, by leveraging the lab's data assets.

Joint venture

Joint ventures are the most involved type of health system-lab vendor relationship in which the two organizations jointly own the field infrastructure in a defined territory and create a system through which testing may be routed to either the hospital or the commercial lab. Joint ventures may seek to improve the quality, consistency, and reliability of lab testing across multiple clinical settings of patient care including inpatient, outpatient, and retail locations. Employing enhanced information technology connectivity, the partners can use electronic order entry and results reporting, future integration of diagnostic test reports, and data archiving capability. Furthermore, improved lab efficiency and service can be achieved through the consolidation of infrastructures of, for example patient service centers, courier services, and client services to achieve system-wide cost reductions while supporting improvements in the quality of care and quality of service to physicians and patients.

Conclusion

Ongoing utilization pressure and evolving payment models are driving health systems to evaluate ways to expand the role and reach of the hospital clinical lab to better serve patients and improve profitability. Consider a patient who receives testing as an outpatient, is admitted and receives continued testing, and then is discharged, but returns for follow-up testing. Across the episode of care, the hospital performs many iterations of the same test using consistent instrumentation and scientific methodology. Such continuity provides thorough, comprehensive, and consistent data results that feed the patient's EHR, which will inform the patient's physicians and guide future care. However, continuity of care as described requires significant financial investment, a challenge for health system labs that operate as cost centers.

To transition health system lab operations from cost center status to profit-generating status, providers may evaluate a full range of strategic collaborations, including lab management arrangements, outreach acquisition, and joint ventures, which present opportunities for health system to control costs and expand their services for greater profitability. Engaging with a commercial lab partner that has a proven history of collaboration, robust technical capacity, and deep clinical expertise allows the health system to maintain laser focus on the primary objective of improving patient care and clinical outcomes, while adding sophisticated diagnostic resources that foster more profitable lab services.

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