

*Reframe what
is possible*



*Change is nothing new in healthcare,
but the pace of it is.*

Non-stop innovation sounds quite promising on the surface. The remarkable growth in tests as well as new technologies and services have taken healthcare by storm, and it's only expected to accelerate.¹ This may push health systems to the extreme limits of their delivery capability and force them to do more with less.

There are five key developments directly affecting clinical laboratories right now that are simultaneously challenging and promising. These trends are predicted to impact healthcare decision-making, opening up opportunities for labs to demonstrate their value to the broader health system.

1. *Staffing challenges* *A sustainable response to laboratory staffing issues*

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While the number of individuals graduating with technician certificates has seen 81% growth,³ the enrollment and graduation of medical laboratory professionals is not enough to keep up with rising demand. An estimated 1.9 million new healthcare jobs will need to be filled by 2028, growing more than any other occupational group.⁴

High retirement rates are also a contributing factor. Knowledge loss from experienced workers, along with the fast pace of technological advances and limited training opportunities, make qualified staff a rare commodity. What's most concerning is the potential prolonged impact of an inadequate workforce in clinical laboratories. Could this eventually compromise quality and throughput?

To prevent output or performance issues, laboratories need to respond. But how are medical laboratories

expected to maintain or increase test volume with fewer people? The answer lies beyond the quick delivery of results. What if new technologies could help relieve some of the pressures labs face and provide opportunities for the growth and development of staff?

As healthcare shifts from a volume- to value-based model, automation presents a promising way forward for laboratories. Reducing manual steps would free-up resources to focus on strategic business drivers.

Higher system walk-away times may increase team capacity. Even smaller labs with limited budgets can implement customized lab automation solutions, providing similar time-saving benefits enjoyed by larger labs. Freeing staff up to perform more value-adding tasks not only boosts job satisfaction but can increase productivity. This allows lab staff to flourish, while empowering lab management to best look after the business.

Uncover the impact staffing challenges may have on your lab.

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2. *Industry consolidation* *The need to be proactive* *in the face of change*



Widespread consolidation among hospitals and laboratories is underway, with no signs of slowing down. A recent report shows that the volume of mergers and acquisitions have almost doubled over the last four years.⁵ Key factors influencing this current wave of consolidation include cost-cutting and an increasingly competitive environment. While smaller laboratories are more likely to be merged or acquired, larger laboratories are expected to become even bigger.

What impact will this consolidation have on the larger diagnostic landscape and how different might the diagnostic landscape look in the coming years? Failure to adapt will put many labs at risk of being consolidated or closed down. The ones that survive will be forced to shift their focus even more on cost efficiencies, reducing equipment variety and reagent suppliers.

The increased throughput offered by these labs should enable them to provide a higher level of service, positioning them for additional testing volume. With the right action plan, laboratories can increase their operational efficiency and financial stability to increase the likelihood of long-term success.

Learn the most important factors driving healthcare consolidation.

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3. *The lab's value* *Elevating value-add* *across the healthcare* *continuum*



Perceptions are difficult to change. Frequently, labs are perceived as a non-profit-generating center—a necessary and sometimes less innovative part of the broader healthcare landscape. This underappreciation stems from the lower visibility lab output has on patient outcomes compared with medical intervention. While labs only receive about 2-3% of the healthcare organization's budget, they drive approximately 70% of clinical decisions every day.⁶

Therein lies the opportunity. Healthcare providers rely on accurate and precise lab results in order to do their jobs well—the best possible patient care requires high-quality information. The lab's influence on

the decision-making process is why it's imperative that labs commit to continual improvement.

But is this currently provided value enough to save labs amidst an industry-wide cost-cutting trend? Given the commercial pressures labs face, it can be hard to see an answer. Though, new technologies may offer the potential to transform laboratory operations and value-add.

Laboratory management will soon need to explore ways to deliver broader services to the clinician base, helping them in turn to better manage patients and costs. One approach for labs to provide value-based care is by analyzing data. For instance, if quantifiable data revealed a hidden cost-saving opportunity, that information could be shared across an organization, delivering better outcomes and financial performance. These insights can also help labs deliver value beyond diagnostic results. Analysis of physician ordering patterns could open doors for more effective testing. Eliminating under- or overutilization of tests might help reduce costs and potentially eliminate patient readmissions or delays in care.

See why focusing on value is your best strategy for sustainability.

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4. *Technological advancements* *The lab as a data manufacturer*



Today's laboratory environment is ever-changing and pressure to maximize quality output has never been higher. Luckily, innovation, digitalization, new tests, and advanced equipment have led to significant gains in efficiency and automation.

These developments play a key role in producing faster turnaround times, reducing human error, and improving the timely delivery of important patient information. Current technologies can even automate specimen transportation, sorting, accessioning and inspection, using integrated mechanical, electronic, and informatic tools. Harnessing a lab's data capabilities can also help to improve clinical services, like re-shaping diagnosis or treatment workflows.

As laboratories look toward the future, developing their data capabilities will help build a value-based foundation on which to grow. To start this process, labs should audit their existing data and understand how it's used. This is the first step in identifying opportunities to optimize the use of this information. At the same time, labs should also consider the potential new technologies have to increase the quantity and quality of data they generate. In an increasingly digital ecosystem, these new data capabilities should position labs favorably within their local health economy.

To further secure long-term success, labs should embrace technologies that center around automation, consolidation, integration and standardization. This combination of benefits would likely result in higher quality and more efficient workflows, allowing labs to lower operating costs and better focus their operations around patient needs. Automated systems and analyzers may even help labs to overcome the upcoming workforce shortage, allowing them to optimize the use of lab staff for higher value responsibilities.

For laboratories committed to staying competitive tomorrow, it is essential to leverage the leading technologies of today.

Take a look across industries to see why not preparing is not an option.

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5. *Managing the spread of infectious disease* *Adjusting approaches for a globally connected world manufacturer*



Today, globalized societies and increasingly dense populations make infectious diseases difficult to manage. These factors pose a significant challenge to healthcare systems and governments, highlighting the need for fast, accurate, and efficient laboratory testing.

The true extent of this challenge became clear in the early months of 2020 when the novel COVID-19 virus caught the world off-guard and unprepared. What started as reports of pneumonia in China soon transformed into a global crisis, shutting down world economies and pushing healthcare systems to their limit. Previous outbreaks offered some guidance on managing the disease, particularly the practice of social distancing and high-quality diagnostic testing.

Advances in molecular testing have made it more accessible, eliminating complex and time-consuming manual processes with fully automated solutions. By reducing error and elevating efficiency, laboratories can better meet the needs of the communities they serve, while securing their own long-term sustainability in a competitive healthcare environment.

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6. *Managing rapid change and utilizing opportunity* *Advancements in disease elimination*



The onset of the COVID-19 pandemic has launched diagnostic complexities back into the global spotlight, speeding up advancement in transmission prevention. While the loss of life and socio-economic risks have been too hefty a price to pay, innovation in diagnosis, and subsequently disease management, has had a significant impact on efforts to eliminate diseases at a broader scale.

In 2020, for example, nearly 700,000 people suffered HIV-related deaths and an estimated 1.5 million new people were infected. ¹ At a glance, these numbers highlight pressing challenges, however, a broader lens reveals the rapid impact of innovation.

As diagnostic capabilities evolve, so the opportunity grows to gain real-world value from new technologies and workflows in the fight against global diseases such as HIV/AIDS and TB.

Explore the powerful impact of innovation in disease elimination.

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References:

1. McKinsey & Company. The 'big data' revolution in healthcare: Accelerating value and innovation. <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/the-big-data-revolution-in-us-health-care> . Accessed June 22, 2020.
2. Scientific American. A Shortage of Skilled Medical Lab Workers Is Looming. <https://blogs.scientificamerican.com/observations/a-shortage-of-skilled-medical-labworkers-is-looming/> . Accessed September 23, 2019
3. The American Society for Clinical Laboratory Science. Addressing the clinical laboratory workforce shortage: <https://www.ascls.org/position-papers/321-laboratoryworkforce/440-addressing-the-clinical-laboratory-workforce-shortage> . Accessed September 23, 2019.
4. AMN * Healthcare. Unprecedented Growth in Healthcare Workforce Demand in the 2020s: US Bureau of Labor Statistics. <https://www.amnhealthcare.com/unprecedented-growth-in-healthcare-workforce-demand-in-the-2020s/> . Accessed June 16, 2020.
5. Advisory Board. M&A—To What End? Five Characteristics of Intentional Corporate Strategy. <https://www.advisory.com/research/health-care-advisoryboard/studies/2014/ma-to-what-end> . Accessed September 23, 2019.
6. Rohn UP, Binder C, Dieterle T, et al. The Value of In Vitro Diagnostic Testing in Medical Practice: A Status Report. PLoS One . 2016;11(3):e0149856. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4778800/#pone.0149856.ref026>