



# LEVERAGE THE LAB FOR A HIGHER PERFORMING HEALTH SYSTEM

## HUMAN RESOURCES & STAFFING

### IT'S A CHALLENGING TIME FOR HEALTH SYSTEMS AND LABORATORIES.

Even before the pandemic, a sustained rise in chronic illnesses, increased consumer access to healthcare, and new testing methodologies were driving laboratories to be more agile in adjusting to new operational demands. Laboratories worldwide are struggling to meet staffing needs, while changes in reimbursement and shrinking budgets continue to drive health systems and laboratories to reduce costs. What this all adds up to is that health systems are being challenged to do more with less.

Through our work with laboratories and health systems around the world, Abbott has gained valuable insights about how to improve lab value – even in today’s increasingly complex healthcare environment. Looking beyond the current healthcare challenges, growth opportunities exist.

Maximizing these opportunities begins with evolving the role of the laboratory beyond traditional performance measures such as throughput, turnaround time and variable cost per test. Forward-thinking health systems are taking a holistic view of the total value a laboratory can bring to the healthcare equation.

“Forward-thinking health systems are taking a holistic view of the total value a laboratory can bring to the healthcare equation.”

## THE HEALTHCARE LANDSCAPE IS EVOLVING



Greater information access



Hospital consolidation



Reimbursement cuts squeezing budgets



Increasing patient volumes



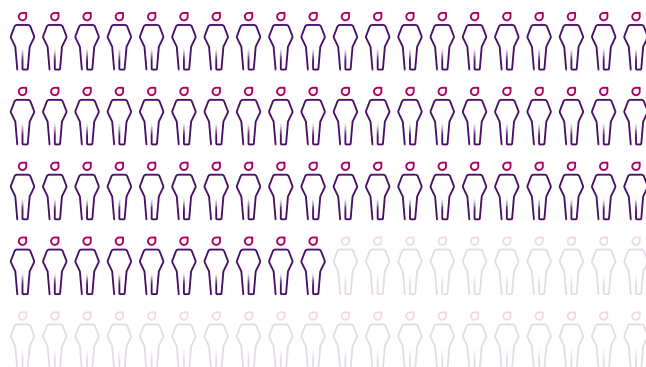
Staffing shortages



New payor models

WHEN LEVERAGED CORRECTLY, THE CLINICAL LABORATORY CAN GREATLY ASSIST HEALTHCARE SYSTEMS IN ACHIEVING **OPERATIONAL EFFICIENCY** AND **INTEGRATED CLINICAL CARE EXCELLENCE**.

In fact, **70% of hospital executives** interviewed in a survey expressed their belief that the laboratory can have a significant impact on patient satisfaction.<sup>1</sup>



# OPERATIONAL EXCELLENCE & INTEGRATED CLINICAL CARE

Your roadmap to better health system performance starts here – with our whole picture perspective on maximizing health system performance.

## CORE COMPETENCIES

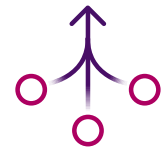
### OPERATIONAL EXCELLENCE



The performance of your people, processes and technology to successfully deliver services.

- **Customer Centricity** – How well you know and serve your customers.
- **Quality Management** – Highest performance at lowest errors.
- **Performance Management** – Doing the right things and doing things right. Efficiency and effectiveness.
- **Network Optimization** – How efficiently you are leveraging the synergies and economies of scale across the system.

### INTEGRATED CLINICAL CARE



The level of alignment and execution across your health system stakeholders to deliver improved clinical care outcomes.

- **Analytics Center** – How easy it is for you to access, share and utilize data for integrated care.
- **Execution of Integrated Care** – How effective you are at implementing an integrated approach.
- **Advice Center** – How effective you are at leveraging data and people to deliver actionable insights for decision making.
- **Population Health Management** – The level of integration across your stakeholders to provide preventative care and deliver improved population and financial outcomes.

## FOUNDATIONAL COMPETENCIES



- **Sustainability**  
How well you use systems to ensure long-term sustainability and drive shareholder value.

- **Innovation**  
Your organization's appetite to implement change (leveraging people, processes and technology) to evolve and improve your performance.

## ENHANCING LABORATORY PERFORMANCE AND VALUE

# FOUR KEY FOCUS AREAS

Today there is more pressure on laboratories than ever before. Delivering on-time, accurate results to physicians is no longer enough to remain viable. Laboratories must not only contribute to positive patient outcomes at the lowest possible cost, but they must also deliver value above and beyond the laboratory's traditional scope of work.

Through the exploration of four focus areas:

**Patient Care Pathways, Early Disease Detection, Human Resources & Staffing and Cost Savings,**

a strategic roadmap can be developed to achieve operational excellence and heighten the level of clinical care across your health system.



Patient Care Pathways



Early Disease Detection



Human Resources & Staffing



Cost Savings

# HUMAN RESOURCES & STAFFING

Automating manual steps to save lab time, reduce costs and increase staff satisfaction.



## MARKET DATA/TRENDS



Health systems and labs from across the globe are **struggling to retain and attract medical technologists.**



Labs are seeing significant increases in retirement rates – the retirement rate increased from **9% in 2012** to **17.13% in 2018.**<sup>2</sup>



In the U.S., the expected increase in demand for medical laboratory technologists is **expected to be 7%.**<sup>3</sup>



In the U.K., **only 3%** of surveyed labs said they were sufficiently staffed to meet their needs.<sup>4</sup>

## Why This Matters

To accommodate new and increased demand, health systems are paying overtime costs, hiring contractor staff and outsourcing testing work. As a result, labs are saddled with higher staffing costs as they struggle to meet a wide range of testing needs while keeping costs down.

## Proven Solutions to Consider

Based on continued staff shortages, optimizing existing staff is one way to ensure that laboratories mitigate unnecessary increases in staffing costs and delays to patient results.

**To support staff optimization, laboratories should consider investing in initiatives that support Performance Management and Comprehensive Workflows.**





## Performance Management

There are several areas within the laboratory which occupy lab technician time but do not necessarily create added value for the health system. These include tasks such as:

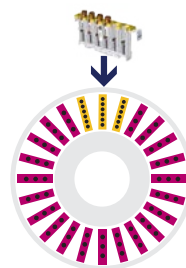
- Assessing inventory levels and processing orders
- Performing routine maintenance
- Retrieving and running calibration and quality control materials
- Loading reagents and other testing supplies
- Manually verifying test results

While these processes are often performed manually today, laboratories have the ability to streamline and automate them. This enables staff to dedicate more time to performing more technically demanding activities such as **performing esoteric tests, managing increasing volumes and providing physicians with greater support.**

For example, Navicent, a hospital system serving the central Georgia area in the United States, adopted the **Alinity ci-series** to enable its staff to automate historically laborious maintenance and calibration activities. Upon adoption, hands-on maintenance times have been reduced by 90% as previously manual tasks are automated by the system.<sup>5</sup> The ability to store frequently used calibration materials onboard and have them run automatically as needed has **freed up staff time by 58.5 hours per year**, representing an 80% reduction in time spent managing daily electrolyte calibrations.<sup>5</sup> Abbott's End to End Solution – including automation, informatics, and systems – **positioned Navicent's lab to manage 1.8MM (38% of laboratory volume) tests annually with just two techs during 3rd shift.**<sup>5</sup>



Alinity system allows for onboard storage of QC and calibration materials.



**SAVED**  
**58.5**  
HOURS PER YEAR



**IMPROVEMENT**

**BY AUTOMATING  
ELECTROLYTE  
CALIBRATIONS**

“With the Abbott solution, we have been able to realize several operational efficiencies that have saved our staff precious time. By reducing tasks, we have been able to free staff up to better serve our nurses and physicians, by providing support around result interpretation and ordering processes. In addition, we have also been able to accommodate testing growth with our existing team.”

*-Christy Holbrook (MT), Chemistry Technical Leader, Navicent*





## Comprehensive Workflows

Most laboratories perform a variety of testing disciplines, such as clinical chemistry, immunoassay, hematology, molecular, urinalysis, microbiology. Historically, many of these disciplines have been run in separate laboratory departments altogether, or at the very least have had distinct workflows. However, by leveraging solutions that cover a range of disciplines and support open 3rd party connectivity,

**laboratories can choose analyzers that best fit their needs, streamline processes, and leverage their staff more efficiently.**

Centro Hospitalar e Universitário de Coimbra (CHUC) is an academic hospital in Portugal that features 18 disciplines, including oncology, transplant, neurology, and pediatric medicine. Through implementation of Abbott's End to End Solution, CHUC was able to standardize instrumentation and workflows, as well as reduce manual steps and movement within the laboratory.

As a result, CHUC now manages a

# 25%

increased work volume with no increases in staff count

Implementation of an open automation solution enabled CHUC to increase samples processed on the automation track increased from

# 9%-100%

## ADDITIONAL SUCCESSES FROM ACROSS THE GLOBE

By working with laboratories across the globe, Abbott has identified insights through data and detailed workflow analyses to support solutions and processes that increase operational efficiency.



**Serbia** – The Clinical Center of Serbia, the country's largest healthcare provider, automated inventory management through Abbott's AlinIQ IMS (Inventory Management System) **reducing hands on time by the equivalent of 4.5 full time employee weeks.**<sup>6</sup>



**Russia** – The Center for Molecular Diagnostics in Moscow was **able to increase the number of samples processed per day with existing staff by 4x.** This was enabled by automating verification of results using Abbott's AlinIQ AMS.<sup>7</sup>



**Vietnam** – Medic-Lab, based in Ho Chi Minh City, **was able to reduce time needed for routine manual tasks (bulk solution and reagent replenishment) by 645 hours annually** – or the equivalent of 16 FTE weeks – through the implementation of Abbott's next generation Alinity ci-series systems.<sup>8</sup>



## KEY TAKEAWAYS

- 1** Optimization of existing staff is a first step in fighting staffing shortages, increases in staffing costs and delays to patient results.
- 2** Health systems should consider supporting staff optimization initiatives with Performance Management and Comprehensive Workflow solutions.
- 3** Automation of time-consuming manual tasks is essential to delivering better clinical care while addressing a host of operational inefficiencies.



## START HERE

### Key Questions for Your Healthcare Partner

- How am I addressing the staffing shortage in my laboratory today?
- What tasks are my staff currently performing that have been streamlined or further automated in other laboratories?
- How can automation and streamlined workflows help our laboratory attract and retain talent?



# FORMULATING YOUR TRANSFORMATION PLAN

## Pulling It All Together



A multi-faceted approach is needed to address increasingly complex healthcare pressures.



Taking measures that address both operational excellence and integrated clinical care to enable health systems is the key to achieving an effective multi-faceted approach.



All efforts must be strategically designed in order to position health systems to improve the level of integrated clinical care to patients at lower costs.

## This Is Where It Begins

Transformative change can start with one great conversation. To initiate that conversation, here are three overarching questions to explore internally and with your lab diagnostic partner:

- How do I develop a three-year lab strategy that ties into corporate metrics, such as patient satisfaction and lower readmission rates?
- What is the best way to facilitate collaboration with physicians on test results and complex cases to help deliver clinical insights for better outcomes?
- How do I aggregate data from the lab to generate insights and proactively share those insights across functions?

## About Core Diagnostics at Abbott

At Abbott, we're committed to helping you connect the performance of your laboratory to the performance of your healthcare institution. We align people, processes and technology to create personalized solutions tailored to your unique challenges. Our resourceful advocates can help you achieve measurably better healthcare performance through harmonized systems and intelligent insights.

Connect with us at [corelaboratory.abbott](https://corelaboratory.abbott) and on LinkedIn at [Abbott | Diagnostics](#)

## SOURCES

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2. Edna Garcia E al. The American Society for Clinical Pathology's 2016-2017 Vacancy Survey of Medical Laboratories in the United States. *American Journal of Clinical Pathology*. 2018;149(5):387–400.
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8. Case Study: Medic-Lab, Achieving Sustainable Growth as a Result of the Abbott Total Solution.

[www.corelaboratory.abbott](http://www.corelaboratory.abbott)

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