



2024 REPORT

*the pulse of the*

# LAB LEADER

Improving health and improving lives.

## The lab is critical to patient care. However, lab leaders face many challenges in their work to improve patients' lives.

This report examines these challenges and trends through perspectives shared by more than 100 laboratory medicine experts across the country. You'll hear their thoughts on staffing, equipment, technology and other major factors significantly affected by and affecting margins.

To navigate these issues in an increasingly complex healthcare ecosystem, lab leaders will have to engage with elements of the care continuum outside their traditional roles.

By understanding the challenges lab leaders face, we can work together to develop solutions that help improve the quality of care for all patients.



### **Deborah Sesok-Pizzini, MD, MBA**

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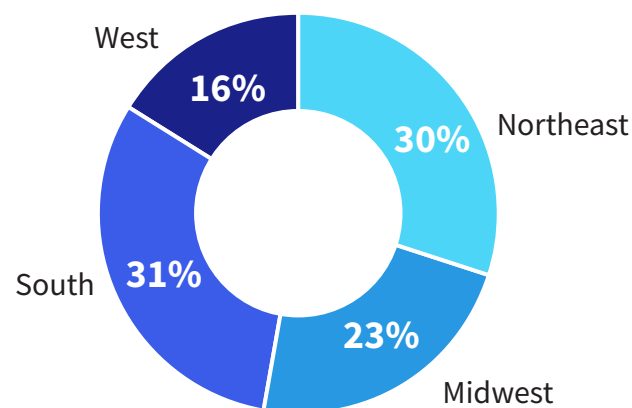
## More than 100 lab leaders at hospitals and health systems across the U.S. contributed

To capture the sentiments and needs of lab leaders today, we analyzed primary data trends from a proprietary research survey and ~30 hours of in-depth interviews.

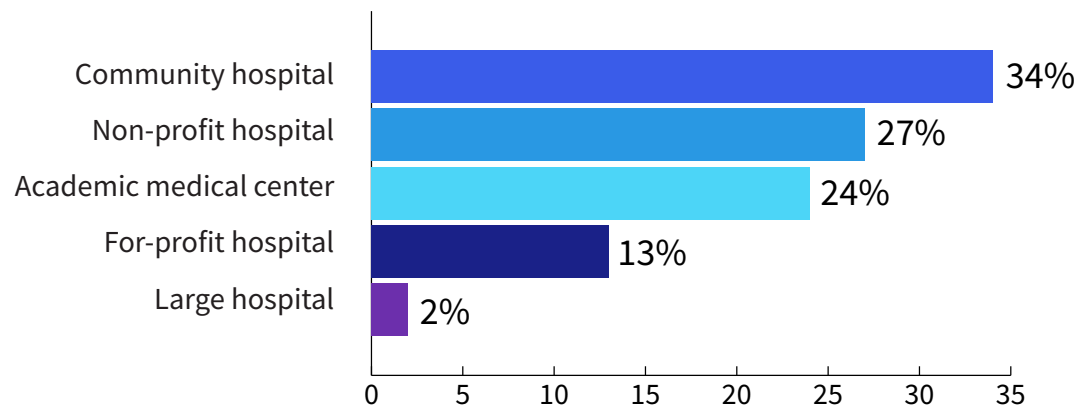
The survey respondents and interviewees included 115 laboratory medicine experts, including pathologists, lab managers and lab directors across the United States.

This included hospital lab team leaders and supervisors who were often responsible for multiple teams or departments.

### Regions Surveyed



### Hospital Types Included



## The findings confirmed the value of the lab and highlighted its greatest challenges

While labs are critical to decision-making and valued by the healthcare industry, lab leaders face significant challenges in running their labs efficiently and effectively. You'll see their perspectives on emerging technologies and trends as well as some of the biggest issues impacting lab leaders today, including staffing issues, equipment, access to technology and more.

# 87%

of survey respondents report the lab is a core part of the hospital system

# 66%

of survey respondents confirm pressures to reduce costs

# 74%

agree physicians value their hospital lab

# 67%

believe staffing issues are one of the top challenges in the lab

# 85%

say the hospital lab is critical to patient care

# 92%

say access to new technology is a top challenge that will take over three years to resolve

# Five pain points for lab leaders today

Lab leaders were asked to list the top challenges their lab was currently facing. These five issues were identified as the most pressing problems:



Staffing



Data/analytics



Equipment



Process/quality  
improvements



Technology

## Pain Point #1:

## Staffing

### Finding and keeping employees is getting more costly

Recruitment and retention of qualified employees has become increasingly competitive for lab employers, especially for pathology jobs, which require special training.

Replacing a specialized healthcare professional can cost as much as [200% of that professional's annual pay](#), plus the cost and time commitment required for training.

### Pathologists are retiring faster than the industry can replace them

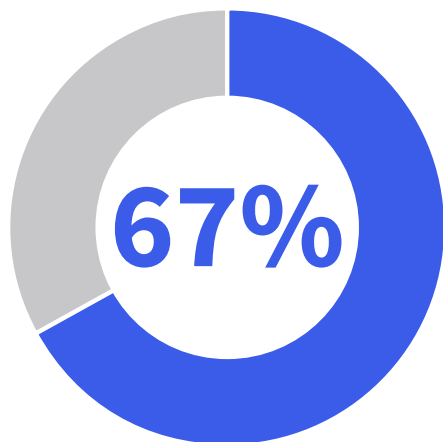
Due to limited numbers of graduating pathology residents, perceptions of limited pay and other industry pressures, retirement is outpacing recruitment.

These staffing issues are leading to resource constraints, increased workloads, low morale and low motivation. Survey respondents said they would spend 41% of additional financial investments in recruitment and retention.

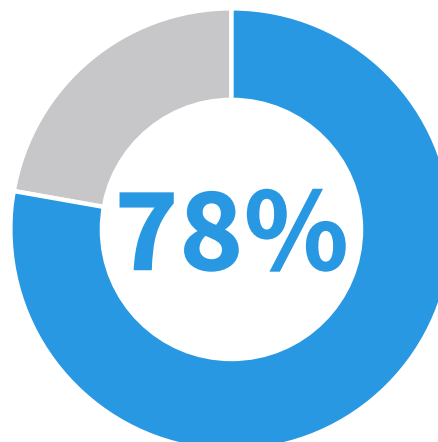
“I would invest in staff in our lab...there's a big demand and shortage of medical laboratory scientists. This is an issue in the whole industry as we're competing for the same people.”

– Pathologist at large health system

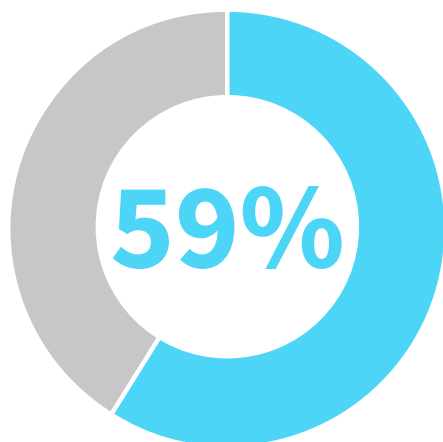
### Top workforce concerns:



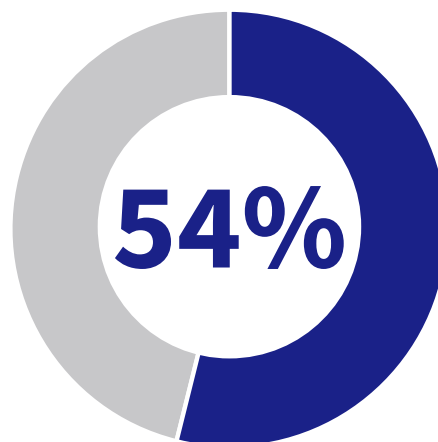
of survey respondents believe staffing issues are one of the top challenges in the lab, with most pathologists citing it as a top concern



of lab managers and **86%** of pathologists say it's difficult to recruit qualified staff



note pay isn't competitive, with **57%** declaring a need for wage rate adjustment to retain and attract talent



of survey respondents say there are challenges in maintaining staff morale and motivation



## Pain Point #1:

## Staffing

### How health systems can nurture the clinical laboratory pipeline

Enabling lab leaders to recruit and retain staff is more complex than just maintaining morale. The [American Society for Clinical Pathology](#) has [recommended several approaches](#) to improve pathways into clinical laboratory professions. Some suggestions include:

- Increasing awareness of clinical laboratory careers by implementing educational programs in schools and professional organizations
- Promoting professional development by providing advanced training for current staff, supporting career advancement and addressing concerns regarding compensation levels
- Boosting diversity and fostering inclusion in the clinical laboratory workforce and encouraging efforts to increase workforce diversity

“We expect a significant number of retirements in the next 3-5 years and will likely see a request to justify maintaining lab services in-house instead of contracting.”

– *Nonprofit hospital lab manager*



## Pain Point #1:

## Staffing

### How lab partnerships can reduce turnover

Working with a lab partner can help improve retention and reduce turnover by facilitating staff sharing between laboratories within the broader organization. This strategy diversifies tasks, enhances skill development, introduces varied work environments and mitigates the risk of burnout among employees.

Lab partnerships can also help provide ongoing education and update pathologists and clinicians about new tests, technologies and best practices. In-person workshops, demonstrations and presentations are considered most effective.



Survey respondents say these are the most effective continuing education formats:

**32%**

indicate in-person workshops or demonstrations

**25%**

note discussions with peers or experts

**20%**

mention video presentations and webinars

**18%**

indicate written articles and research papers

**23%**

of survey respondents report that their institution has graduate medical education for pathology in place, and just 24% say they plan to implement an educational program in the next 12 months

**62%**

at for-profit hospitals, 59% at nonprofit hospitals and 62% at community hospitals say enhanced training programs for existing staff would help the most in resolving top lab issues

## Pain Point #2:

## Equipment

### The pressure to “do more with less”

Hospitals across the board are grappling with budget limitations that affect their ability to invest in infrastructure improvements and equipment needed to expand and improve laboratory services. In fact, the primary reason cited for lab outsourcing is a lack of equipment.

The continuous pressure to reduce operational costs and improve efficiency is driving laboratories toward strategic partnerships with reference labs to share costs. Outsourcing testing like genetic testing and molecular diagnostics is becoming more common due to the specialized equipment and expertise required.

Partnering can help lab leaders leverage the equipment and infrastructure of experts in the field to avoid paying for new equipment in their labs.



### Equipment needs

# 49%

report having frequent equipment breakdowns or malfunctions

# 57%

say they have an insufficient budget for new equipment purchases

# 34%

said they would first put any financial investment toward equipment upgrades and improvements, process optimization, and supply chain upgrades

Pain Point #3:

## Access to Technology

### Lab leaders need access to data and technology to improve lab performance

New technologies have made it easier than ever to enhance efficiency, reduce errors and manage increasing test volumes more effectively. But the lab, like every other aspect of healthcare, is under cost scrutiny that can impact its access to cutting-edge tools.

“Laboratory management will increasingly be responsible for cost reduction, staff recruitment, retention and productivity analytics.”

– *Community hospital pathologist/  
medical director*

### Data, analytics and technology barriers for lab leaders

Only  
**46%**  
estimate their lab has access to the latest technology

Only  
**92%**  
say access to new technology is a top challenge that will take over three years to resolve

Only  
**54%**  
have access to data and metrics needed to efficiently run their lab

**48%**  
have lab data management software in place

**21%**  
plan to install lab data management software in the next 12 months

## Pain Point #4:

## Access to Data and Analytics

**To increase efficiencies, lab leaders must be able to connect data and metrics to actionable insights**

Even if lab management software, data and metrics are in place, lab managers and pathologists can struggle to connect the lab with the larger healthcare ecosystem.

Partnering with a lab that leverages the latest technology and performance insight can help lab leaders optimize test ordering, reduce lab waste and find the right test for the right patient every time.

Some reference labs have already prioritized investments in AI, automation, POCT, digital pathology and NGS technologies to enhance diagnostic capabilities and keep pace with industry trends.

### Gaps in information for lab leaders

# 55%

of respondents say they don't regularly receive useful information on test utilization

# 54%

don't regularly receive useful information on conformance to blood product protocols or specimen quality

# 53%

don't regularly receive useful information on cost per test

# 68%

of medical lab scientists and **58%** of pathologists don't regularly receive useful information on their productivity



Pain Point #5:

## Processes and Quality

### Developing and improving lab stewardship programs

Many lab leaders are eager to install process and quality improvement programs, and a strong lab stewardship strategy can help.

By allowing lab leaders to better adhere to clinical guidelines, identify test ordering patterns and avoid unnecessary testing experiences, a lab stewardship program can enhance provider experience, improve quality, lower costs and increase lab impact.

The right lab partner can combine evidence-based guidelines with real-world benchmarking data to help labs create a laboratory stewardship strategy. These insights, paired with the latest advancements in data and technology, can help lab leaders transform their process and quality improvement programs.

### Gaps in information for lab leaders

**68%**

have and **22%** plan in the next 12 months to start a process and/or quality improvement program

**57%**

have blood management programs in place and **21%** plan to start one in the next 12 months

**45%**

have a dedicated lab quality manager or staff to oversee competency and quality, with 20% planning to implement these duties in the next 12 months

Only **39%** have a lab stewardship program in place

A mere **18%** plan to implement one in the next 12 months, yet **33%** would like to in the future

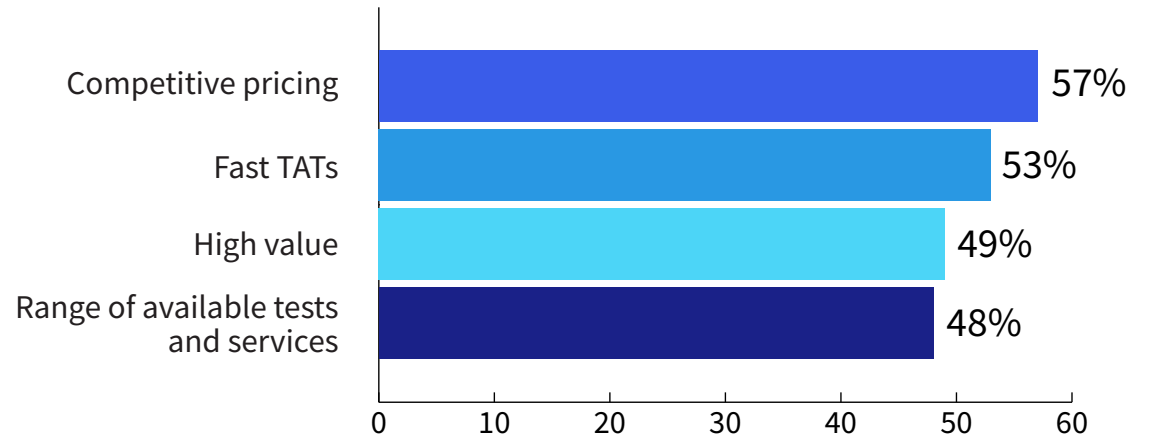
Only **29%** at community hospitals have a lab stewardship program in place, but **65%** would like to implement one in the future

# What makes a good lab partner?

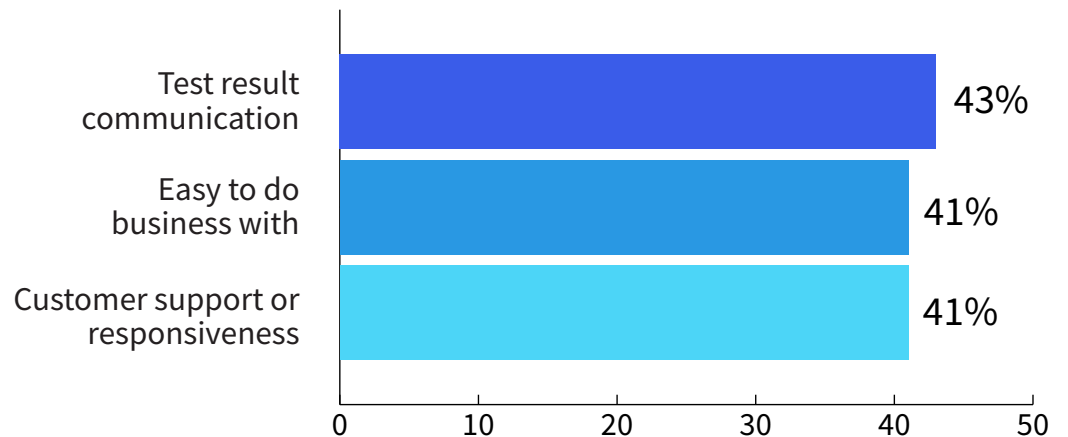
If your organization, like so many others, faces funding challenges preventing you from resolving staffing, equipment and technology challenges, the right partner can help. Here's what lab leaders are looking for in a potential lab partner.

## Critical drivers influencing reference lab decisions

Respondents identified four critical drivers as “extremely important” in influencing their reference lab decisions



Respondents also identified the following critical drivers as “very important”



# Today's pain points intersect with the four trends and opportunities of tomorrow

Lab leaders revealed that while they are focused on overcoming current challenges, they also have an eye toward emerging trends that will shape the lab of the future.

The survey results identified four key trends that will intersect with many existing pain points around staffing, technology, equipment and more. With so much interplay between today's challenges and tomorrow's trends, turning issues and trends into opportunities will be critical for labs to thrive in the years ahead.



## Opportunity #1:

## Digital Pathology

### Digital pathology and AI could provide staffing relief

One of the biggest gaps acknowledged across pathology departments was the ability to stay updated on pathology's rapidly changing landscape. Digital pathology and AI, including emerging GenAI applications also show promise in **attracting and retaining pathologists**.

These technologies expand the hiring pool by enabling remote consultations and collaborations, create a more efficient onboarding process through AI-assisted training modules, and improve workflows by automating routine tasks and prioritizing cases based on AI-detected urgency or complexity.



“Staffing is going to be an issue in the future...Digital pathology can help out.”

– Pathologist at large health system

## Opportunity #1:

## Digital Pathology

### Improving patient care with more objective analysis

The synergy between AI and digital pathology has the potential to integrate high-resolution **pathological image data** with clinical information for comprehensive, multi-modal analysis. Advanced **artificial intelligence (AI) systems** could offer faster, more accurate, and more efficient diagnosis and analysis of tissue samples through **objective analysis** of histopathological features, reducing subjective variability and improving patient care.

To implement AI and enable digital pathology, slides must be digitized first, requiring costly scanners. Many labs are now seeing this expense as a necessary part of doing business, rather than waiting for higher reimbursements or productivity gains.

### Adoption and implementation will take time

While digital pathology is gradually being incorporated in larger, well-funded institutions, full implementation will take time. Prioritizing investments in AI and next-generation sequencing (NGS) technologies to enhance diagnostic capabilities and keep pace with industry trends may soon become essential for every organization.

While new technology like AI and digital pathology can be helpful, there will be significant training requirements before mastery of the technology.

Only

**33%**

of respondents have started or plan to implement digital pathology in lab workflows

Only

**31%**

expect utilization of AI and automation to transform lab management in the next three to five years

## Opportunity #2:

## Point-of-Care Testing (POCT)

### POCT improves care and efficiency

Point-of-care testing (POCT) provides faster test result TATs, updates into the EMR, shares clinical data with the entire care team and shows promise in helping to prevent diseases and improve care. Global search capabilities within larger lab networks magnify the possibility of integrating these tests to the “internet of medical things” in health management systems.

However, **successful implementation** requires careful consideration of quality control, regulatory compliance, and most importantly, integration with existing lab data. While POCT will become more common, only 41% of respondents have started or plan to implement POCT technologies.



“More consolidated lab services will reduce most on-site testing to point-of-care/stat lab type testing.”

– For-profit hospital team supervisor

## Opportunity #3:

## Lab Automation

### Automation is increasing productivity but requires training

Lab automation shifts routine tasks away from lab staff, allowing them to develop new skills and focus on higher-value activities. It can help **reduce medical and human errors**, decrease biohazard risks, increase accuracy and precision of testing, reduce specimen sample volume requirements and improve efficiency by eliminating repetitive manual tasks.

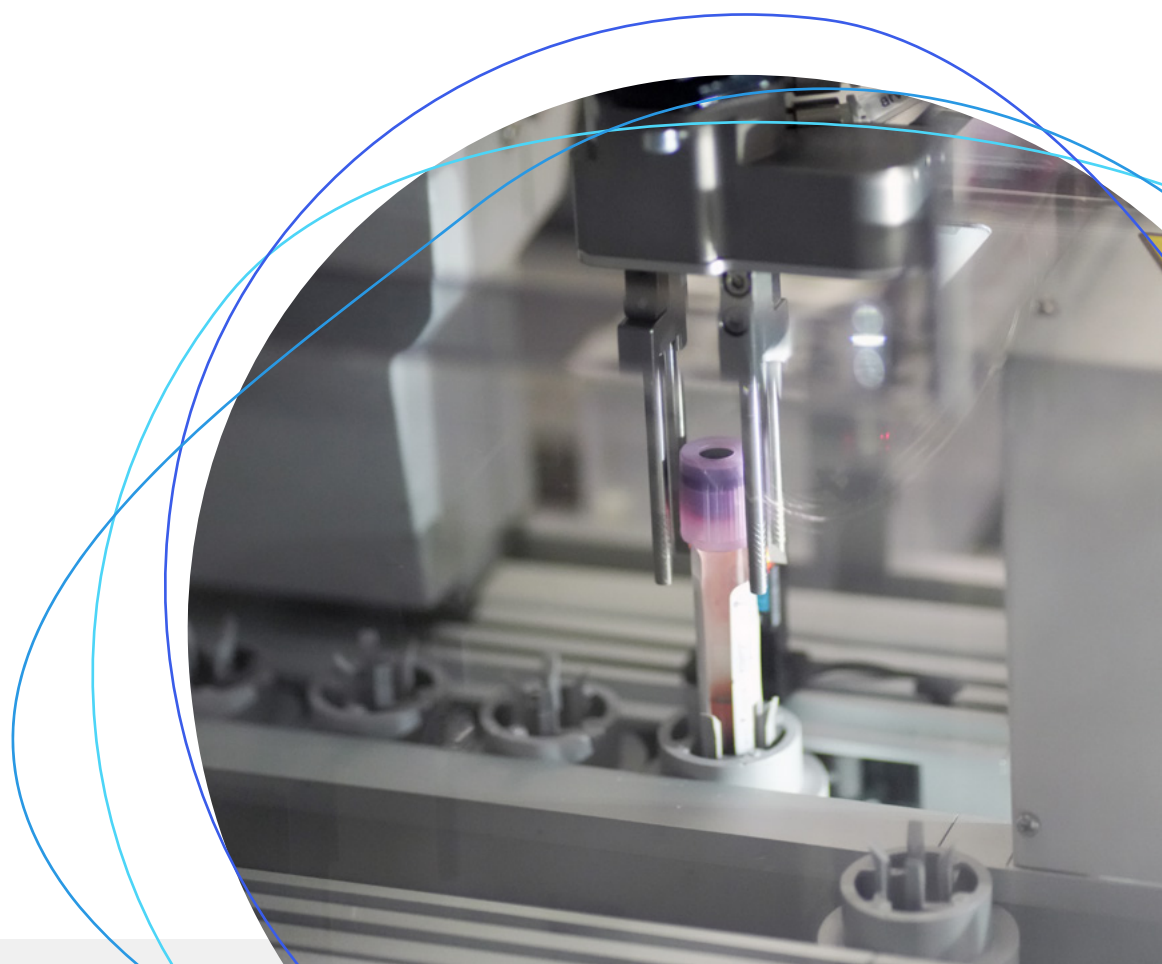
Automated labs have greater flexibility to scale testing capacity without being constrained by staffing levels. As automation increases productivity with faster TATs while decreasing costs, it also requires new skilled roles to manage the automated systems, redefining rather than eliminating jobs for lab professionals.

# 36%

of respondents have started or plan to implement robotics and automation in lab workflows

# 35%

have started or plan to implement automated sample processing



## Opportunity #4:

## Next-Generation Sequencing (NGS)

### NGS technology is becoming more accessible

Next-generation sequencing (NGS) has become an essential tool in fields like personalized medicine, cancer research, infectious disease surveillance, agricultural genomics and its use in molecular testing, especially in tumor analysis, is growing. While NGS offers unparalleled discovery power, it also generates massive amounts of data that require specialized bioinformatics tools and pipelines for analysis.

However, user-friendly software and automated workflows have made NGS more accessible to researchers without extensive bioinformatics expertise. In fact, 41% of respondents to this survey have started or plan to implement enhanced NGS capabilities in lab workflows.

“Our greatest challenge will be trying to keep up with the quickly evolving PCR, NGS and genomics market... while making sure staff can perform the testing and the lab is not losing money.”

– Nonprofit hospital manager

On the horizon:

## Changes to Laboratory-Developed Tests (LDTs)

### FDA regulation of LDTs will affect molecular testing technology—and cost labs time and money

Recently, the FDA determined laboratory-developed tests (LDTs) qualify as medical devices and announced plans to **increase oversight** of them over a four-year period to ensure their safety and effectiveness.

While LDT guidelines aim to ensure high-quality and reliable tests, they also present challenges for labs.

Meeting LDT guidelines will require significant time and financial investment. Increased costs and reduced insurance reimbursements may make test diversity and innovation a challenge and threaten the viability of some labs, especially smaller ones.

This may lead to a centralization of testing in larger labs with the capacity to meet FDA requirements.





“In order to meet the threshold or guidelines that are under LDT, it’s going to cost time and money.”

*– Pathologist at large health system*

“All our assays have to undergo FDA validation or authorization, and it’s extensive and costly to a point where it would put everyone out of business. FDA guidelines will make it harder to innovate.”

*– Pathologist at large health system*

“Big central labs with large capacity are going to do all the testing and validations required by FDA and it’s going to put all the small labs out of business.”

*– Lab manager at small community hospital*



While hospital labs serve as a foundational part of the U.S. healthcare system, they don't always receive the recognition or support needed to improve and maintain their essential services. These survey results point to the need for better staffing, technology, automation, equipment and data.

Lab partnerships can help lab leaders find the support they need, often resulting in improved quality of care and lower costs. By empowering lab leaders to tackle the challenges of a quickly changing healthcare ecosystem, we can improve care for all.



# We're here to help

At Labcorp, our mission is to ***improve health and improve lives.*** Labcorp is the preferred partner for more health systems than any other commercial laboratory in the United States.

As a leader of innovative and comprehensive laboratory services, we frequently take the pulse of key industry players so we can turn partners' challenges into opportunities—and help you improve patient health on a global and local scale.

If you would like more helpful news and resources to face current and future healthcare challenges, [\*\*contact us today.\*\*](#)

