LabVine™

Laboratory Medicine at the "Point of Health." A future perspective and call to action for Lab Medicine

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Introduction

Even before the COVID19 Pandemic, Laboratory Medicine was under intense pressure. Viewed or treated as a cost center, Laboratorians often entered each fiscal year asked to achieve the dreaded "more with less." Staple requirements include reducing the budget, controlling physician utilization, and improving turn-around time. These practices often leave the full value we create or enable on patient outcomes, clinical efficiency, and health system performance unrecognized or unappreciated.

The COVID-19 pandemic highlighted the real value of a lab result. The impact a single result can have on patient flow, physician and patient confidence, and the healthcare system's overall efficiency and effectiveness. Laboratory Professionals deserve massive recognition for the impact they have made on their communities and the patients they serve during this pandemic. It is indeed exciting to see that recognition materialize.

Unfortunately, in the wake of the financial devastation of COVID-19, an eventual return to "cost center-like" pressure/treatment is likely, and perhaps inevitable - unless we seize this opportunity to reimagine the lab and the thinking, behaviors, and business processes we use to define Lab Medicine.

There has been much progress in re-valuing and re-shaping Lab Medicine in the past decade. This includes The Diagnostic Management Team concept of leveraging the lab's decision expertise as its value source to the Lab 2.0 Movement of taking a comprehensive down-stream look at the numerous value-creating impact points. It is clear the lab has significant and unique expertise which creates meaningful value. When leveraged and powered appropriately, the laboratory can have a sweeping impact on downstream cost, quality, and outcomes.

However, executing these novel models and getting recognition and investment for creating this "new" value is easier said than done for most of us. The day-to-day pressures, the prevailing systems and processes that govern health system operations and strategies, and the sheer lack of time to "think" can impair our ability to make slight impactful changes, much less a cultural transformation inside and outside the lab.

This paper is for those ancillary service and laboratory leaders who are seeking to:

- ✓ Deepen their impact on their healthcare system
- ✓ Increase the relevance and sustainability of the lab
- ✓ Prepare their labs and their health systems for the future

The paper is broken into three chapters and aims to provide:

- ✓ "Food for thought" about the future of healthcare
- ✓ Outline potential options for redefining the lab
- ✓ A simple step-wise process to start the journey to "new" value creation

Each chapter concludes with discussion questions that can be used for group learning, sharing, and strategy development with your teams or strategic alignment planning with your vendors.

This paper is not judgmental or critical towards the current methods or beliefs within Lab Medicine. The intention is to stimulate new thinking and offer a potential road map to those seeking to shape, if not control, their lab's future and create an even more significant impact for their patients and communities.

CHAPTER 1

The Future of Healthcare

Wayne Gretzky's father, Walter Gretzky, has one of the greatest strategic quotes of all time, "Go to where the puck is going, not where it has been." Since our world is rapidly changing - this is no longer an anecdote, but a competency - especially in the health and healthcare industry.

As Laboratorians, we must anticipate how health definition and delivery will likely change over time. We have to ensure that we have built a valuable and viable engine for the future state.

Although we could discuss several future dynamics, let's focus on those that surround what today we understand as "the patient," which in the future will be known as only "the person." Let's focus on what the average person will want as a consumer and how they will expect it to be delivered.

Future Consideration 1: The definition of health (and subsequent expectation on providers) will broaden beyond physical health to the concept of human flourishing. People will require treatment as a whole person.

The World Health Organization defines health as "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." For years, WHO and public health professionals have championed that "health" is not just a physical state. It contains mental, social, spiritual, and emotional dynamics. It's no longer about a "lack of illness" but about an overall sense of well-being; this is where the concept of flourishing comes into play. Flourishing connotes an optimal and fulfilling life (Fredrickson & Losada, 2005), not just at a point in time but more importantly across time. None of us want to be physically fit and emotionally distraught, lonely, or spiritually vapid, nor do we want that for our friends or family. Flourishing (akin to self-actualization) is about feeling resilient and at our best in life. Physical health will be the minimum requirement in the future. People will expect a pathway to flourishing. Flourishing isn't easy to achieve unless we bring the physical, mental, social, and emotional elements into the equation of health simultaneously - our individual social determinants of health if you will. Why? Two main reasons. Firstly, there could be trade-offs between each element. Maybe the requirements for physical well-being contradict a deep spiritual belief. Secondly, there is clear synergy and interdependence between these domains of well being (e.g., poor emotional circumstances have physical manifestations).

Therefore, people will want health provision to consider them as a "whole person" and manage the entire health equation. They will expect payers and providers to address each aspect of their "health" as they define it for themselves. They will expect health programs to address each domain of their self-defined health in a unified and comprehensive way. They will expect care plans and providers to support them in personal flourishing and comprehend their social situation. "Precision" and "Personalized" medicine will aim in this direction.

This means health payers and providers can't focus exclusively on intervention, effective maintenance, or even prevention any longer. Long-term players in health/healthcare will need to evolve, sharpening their endgame on flourishing and enabling creation and optimization of the broader definition of health throughout a person's life-course. People will expect this - It will be the prism with which they view payers and providers. Relevant labs will carve out value-creating roles to play in this new world.

Future Consideration 2: Care will be expected to integrate into people's lives, and people will expect to be engaged in co-producing their health.

It wasn't long ago that we had to physically go to the bank to withdraw money, make deposits, or check on our account. If you had issues whereby you were getting close to being overdrawn, you had to identify those on your own and hopefully take action before the overdraft took place. Today almost all banking actions are easily managed from a cell phone with automated banking services that can warn you in advance of issues with your account, including fraud, credit ratings, etc. Banking is collecting real-time information and converting this into actionable

insights for all of us. Technology has allowed Banking to be almost entirely e-based, integrated into our life flow, and proactive in creating life-value. Banking is not something that you engage with; it more or less happens around you or at least is convenient to you 24/7.

Historically (and still today), most health services are experienced physically in a brick and mortar, triggered by the "patient" and through face-to-face interaction with a healthcare professional. It happens "to" a patient, triggered mostly "by" a patient, and is not always accessible, much less “convenient” for the patient. When it comes to data, most of the usable health record today is generated while a patient is "in" the system interacting with clinicians (e.g., lab results, radiology, physical, exam, etc.). However, this is a small snapshot in time, longitudinal in only special cases, and represents a minute amount of what we can know about a person’s life. A virtual cornucopia of potentially meaningful/usable health data is routinely generated in our daily lives. It goes uncollected and unused.

In the not-too-distant future, people will expect that healthcare surrounds them and is FULLY integrated into their day-to-day routines and leveraging life-generated data like the banking example. They will expect the service to be available almost ubiquitously and in real-time and that it is actively supporting them toward their health goals or personal definition of health. People will not accept disrupting their lives to make a face-to-face doctor's visit. They will expect technology to enable integration into their daily routine, utilization of life-generated data, and an ultimately "different" service level to maintain their well-being.

Also, people will expect to be effectively engaged in co-producing their health. This future element has two subcomponents:

First, people will expect the system to engage them in their well-being proactively. Whether it be local/real-time monitoring or gamification of wellness, engagement will be essential. This is not just traditional preventative medicine; this is “inventive” health inspiration.

Secondly, people will want an ever-increasing say in attaining their health goals or achieving their personal flourishing definition. The UK's National Health System (NHS) was well ahead of this in 2011 with the concept of "No decision about me without me." In the future state, in addition to being engaged, people will also expect to be "in charge"... not "treated." The provision of healthcare will become the modern-day invisible hand that enables people to collaborate with providers and empowers them with tools (gamified or not) to own and co-produce their health.

With that being said, the full responsibility for building engaging programs and easy-to-use systems will fall on the health payers and providers. Success for payers and providers will not be measured on their ability to meet people in their homes but rather their ability to meet them ***throughout their daily lives.*** They will need to actively and routinely engage their customers in an integrated way or those customers will turn to someone who will.

Relevant labs will somehow become a component that enables this co-production of health for people in the community.

Future Consideration 3: Inequalities of care or health will not be tolerated, and social determinants will take center stage.

Although there are several other elements we could select regarding future drivers, this is an important one worthy of health system leaders' focus.

Most of a person's health is derived from elements that are not 'care' related - from the social factors surrounding them, also known as the Social Determinants of Health (SDOH). Some estimate the SDOH are responsible for up to 80% of our well-being.

This may seem like a "not my problem or responsibility" to providers; however, nothing could be further from the truth. If we look at it solely from a financial perspective, it's widely accepted that healthcare's future economics are likely to be outcomes-based. Said another way, when a provider takes on the financial risk based on outcomes (i.e., a value-based agreement), that provider accepts the challenges and risks of the social factors that underpin those outcomes. Another financial argument centers on the amount of waste in our health system. Many estimate this to be as high as 30% in the US and not much better in other countries. A ton of waste occurs (e.g., unnecessary care, over-utilization, inappropriate use of resources, etc.) solely based on social circumstances driving people to the Emergency Room vs. a General Practitioner or inhibiting their compliance with medications or therapies due to cost, transportation, or a myriad of other social reasons.

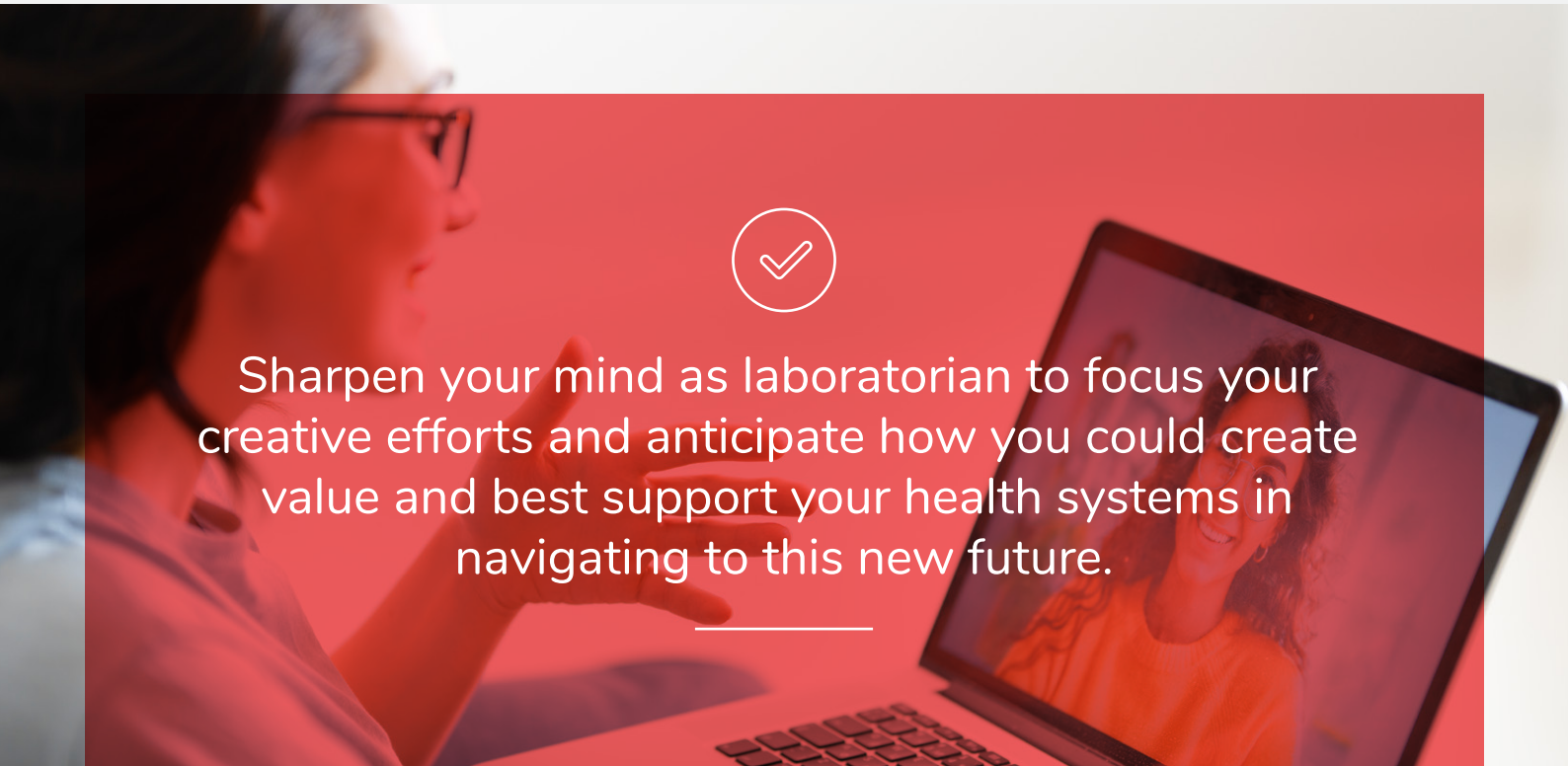
Therefore, providers who figure out how to proactively work through and underpin social drivers are likely to be the long-term winners. Health systems can no longer survive solely on excellence in acute or chronic care. They must develop the capabilities to assess the population, anticipate needs, and proactively address, if not compensate, for Social Determinants. This will further emphasize public health, a need to utilize existing and new data sources to understand the population, and a creative approach to addressing local population needs and care gaps. Relevant labs in the future will be able to leverage existing and external data sources to help their health systems understand the population deeper, anticipate health-related issues, and more effectively engage people and physicians in elevating the local standard of health.

CHAPTER 1 CONCLUSION

Again, there are several future descriptors. These three can help us sharpen our minds as laboratorians to focus our creative efforts and anticipate how we could create value and best support our health systems in navigating to this new future.

CHAPTER 1 DISCUSSION QUESTIONS:

- ✓ Which of these "future considerations" is most important for our health system?
- ✓ What "future considerations" were not addressed that our health system must consider?
- ✓ What are the critical Social Determinants/Population Health challenges we face in our geography? How do those impact our health system? What is the health system doing to address these? How can the lab help?
- ✓ How is our health system preparing to integrate and build a "co-production of health" service for people? What should it be doing/can it be doing differently? How can the lab help?
- ✓ How will patient-generated data impact the demands on the lab? How could we proactively integrate and leverage this data for the good of our patients, clinicians, and health system?



CHAPTER 2

How will Providers likely change?

Given the future outlined in Chapter 1 of this paper, the successful providers' goal will shift from being a low-cost, interventional/episodic supplier toward being an integrated collaborator and enabler for people to optimize their health in the broadest sense of the word. The provider's competency will need to be in the co-production of health with "the person". Think of this as the provider making a move from the “Healthcare” business to entering the “Health Creation” business.

Given this, the word "hospital" and its historic imagery can no longer represent a health system. A traditional hospital has to become the least active component in a multidimensional health-creating ecosystem. A health system needs to conjure images of a "life-course integrated engine" or "system for flourishing" - not a "support system for disease management."

Again, there are a number of actions providers will have to take; however, I am selecting three primary areas for focus here.

Provider Action 1: Providers will need to expand their physical and technology footprint in an interoperable way to integrate into the life flow of the people/communities they serve.

"Point of care" now turns into "point of life" (i.e., times, locations, and events where decisions are made or data is created by individuals that support their personal health attainment). Providers will need the ability to derive population and individual insights in real-time and convert those insights into meaningful data-driven actions for all constituents of care (including the person). To do this, providers can no longer accept 80% of the patient record coming from internally generated data. The provider will need to mine and leverage ten times that by integrating with data generating/diagnostic tools in the home, work environment, or wearables.

In short, they will need to re-think and expand their digital capabilities and identify how to create bridges that enable person-level data streams to be accessed and leveraged. They will also need to build and deepen their diagnostic and prognostic capabilities to assess well-being levels and anticipate issues for communities and individuals well in advance.

Relevant labs will need to ensure they are tuned into these changes/plans for their systems and be at the table to ensure data lakes within the lab and data streams from the patients can come together to create meaning for all.

Provider Action 2: Providers will need to move beyond fundamental prevention-oriented programs to customizable and active Health Creation/Optimization programs.

Providers will need to shift their endgame definition of success/quality from the absence or control of disease to the overall flourishing of the people they serve. They will need to develop programs and services that offer on-going and daily value, not just episodic value. Providers will be challenged with, and must resolve engagement. Providers can’t solely focus on activating discretionary effort from people to work on their health. They must also successfully inspire and support people in building their health literacy, comprehension, and skills for creating healthy and flourishing habits. This will need to be done by creating ecosystems of technologies, programs, people, and communications that are compelling, interesting, and integrated into the life-flows of the people they serve.

Provider Action 3: Providers will need to expand the care team and integrate service lines even better.

Today, in episodic care, care team alignment and patient coordination can already be daunting. In the future, life coaches, data analysts, therapists, and service providers we haven't even conceived yet will be added as new care team members, requiring new ways of working to support the people being served holistically. We need to

implement this seamlessly and robustly. Providers will need to develop processes and tools that enhance internal communication and create longitudinal alignment across teams and with the people they are serving. In short, more people will join the team; the "person" will expect to be effectively engaged and want more (if not the final) say in the health journey. Providers will be responsible for constructing and coordinating this process and keeping everyone in the health creation zone.

What are the key challenges to change?
The items above are substantial shifts in providers' design and focus. Unfortunately, providers will need to make this shift while facing some fairly significant challenges. Again, there are too many challenges to enumerate here, but we'll list a few that we must consider as we re-think the lab. Some of the most likely health system strategies are as follows:

1 Key Challenge 1:
The financial challenges will abound Post-COVID19.

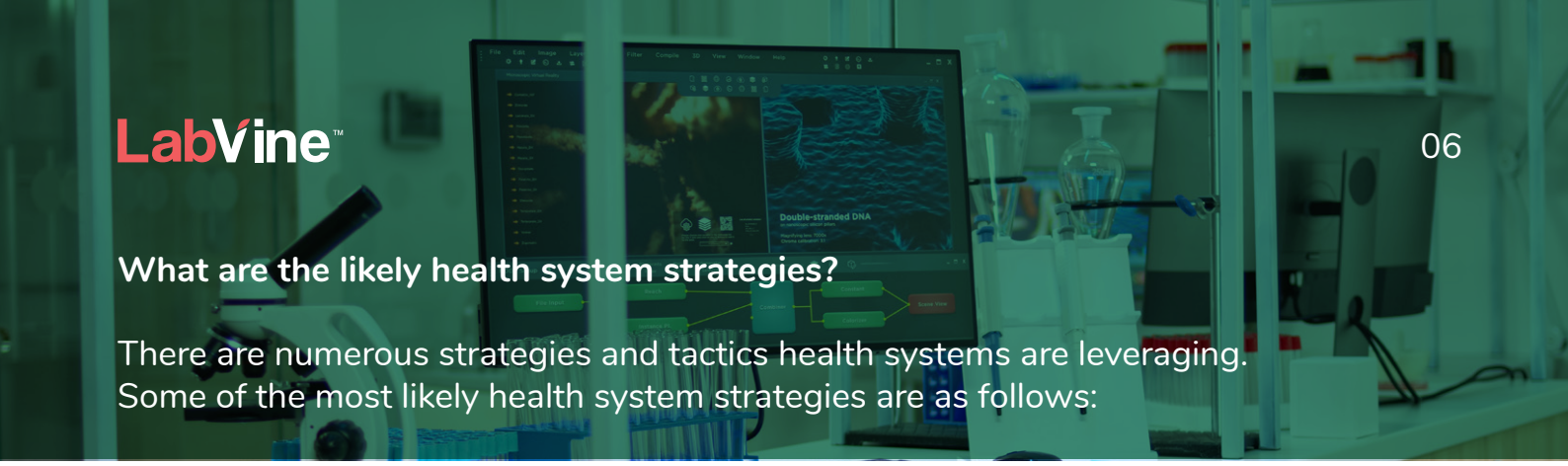
Pre-COVID many health systems were already on a glide path to negative net income by 2025 (i.e., spending more than we are making). This journey to the financial hurt locker has been accelerated dramatically due to COVID. Before health systems can move to the future, they will need to recover in the present. They will have to significantly scrutinize cost centers and emphasize on-going spending stewardship. We have yet to experience the worst of the financial squeeze in healthcare. It is coming soon.

2 Key Challenge 2:
Although "system-ness" has been a focus for over a decade now, many health systems continue to struggle to coordinate resources, mobilize data, and leverage the strength of the diverse team.

On the surface, this may seem like it is getting easier with the broader use of EHRs and EMRs. However, anyone who has gone through an implementation of the above fully understands they are far from perfect and automation does not always equal outcomes promised. Although this level of automation is necessary, it is only one component of value creating innovation. "System-ness" requires integration (and perhaps change) of people and process with technology. Effective integration almost always requires change of behavior, skills, or capabilities - this is where the challenge lies. Experienced teams will face major change requiring new thinking and beliefs while new team members with different skills and responsibilities will be added. This "system-ness" objective will grow even more complex as the digital backbone is challenged to be more comprehensive (i.e., wearables, smart home tools, etc.), with systems that encompass many more players (particularly non-traditional players). Already key stakeholders are not invited to the table at times (Lab Medicine knows this all too well) and coordination challenges abound. Whatever the cause of truncated and misaligned clinical care teams (e.g., power dynamics, resource constraints, organizational silos), those drivers will inhibit the execution of what must be next.

3 Key Challenge 3:
Currently, there is no "direct" reward or incentive for addressing public health needs or collaborating with the community. There are real barriers to taking on such a task.

There is not much more to this than what it says on the tin. There are financial reasons to address SDOH and public health needs. Unfortunately, there are not always great local mechanisms for doing so in a sustainable way. Winners will need to figure out how to compensate for local geographic, political, and social challenges that uniquely impact public health



What are the likely health system strategies?

There are numerous strategies and tactics health systems are leveraging. Some of the most likely health system strategies are as follows:

1 Likely Response 1: Financial Stability

Health systems (if they haven't already) will lay out a robust plan for financial sustainability. This will include specific targets for key financial indicators (e.g., revenues, costs, etc.), target areas for revenue growth or cost savings, and new revenue models co-developed with payers to create financial stability and predictability. Every department within the health system should know this plan and resulting KPIs.

2 Likely Response 2: Digital Backbone Development:

Health systems will likely accelerate capital investment into developing the digital backbone. The last decade has taught us that data is NOT the end state - data-driven action and wisdom are the focal points. Again, in the future, providers will be required to leverage data from non-traditional sources in real-time and mobilize those actionable insights beyond the physician to the person. This tremendous digital transformation has already started with the increase and investment in telehealth and will continue. Long-term winners will re-think (or at least broaden their thinking) regarding the digital ecosystem design and source of insights. Every department within the health system should understand and be able to support the digital plan.

3 Likely Response 3: Health systems will begin to develop population management capabilities and programs:

Although this has been well under-way in systems for over a decade now, integration and collaboration with the local community will become a mainstay. Given everything articulated above, health systems will need to understand their populations and communities as entities in and of themselves even better and deeper than we may be aiming at today. In addition, they will need to be prepared and capable of collaborating (if not integrating) with local resources (e.g., transportation services, food pantries, etc.) to optimize how all health creation resources and inputs are aligned and deployed. The competency of Population Management will need to move from analytics to action ... from the the community as recipient to the community as participant ...from what we do to respond to the environment to what we do to create a better one. Health systems will be called to lead ... many already are ... more will need to in the future.

CHAPTER 2 CONCLUSION

There is no "one size fits all" approach for health systems moving forward. What is clear is that no health system can afford the status quo. The present is extremely challenging and the future even more daunting. Change is the game: Thoughtful iteration and evolution are required, but always with an eye on and preparedness for revolution.

CHAPTER 2 DISCUSSION QUESTIONS:

- ✓ What is the financial condition of our health system?
- ✓ What are the short and long-term financial goals?
- ✓ What actions are our senior leaders taking?
- ✓ What should we be doing as the lab to help?
- ✓ What can we do to support coordination and communication across the expanding set of stakeholders?
- ✓ Who are emerging stakeholders? How well do we understand their needs?
- ✓ What is our health system doing regarding population health?
- ✓ What are some of the ways the lab could help build public health competency?

CHAPTER 3

Implications to the Lab

I'll begin this chapter with two disclaimers.

Disclaimer 1: For Lab Medicine by Lab Medicine

Lab Medicine is chock-full of the best minds in healthcare. I've been so fortunate to learn at the feet of some of the most insightful thinkers and healthcare leaders with "Lab Medicine" scripted on their white coats. A talented medical discipline indeed. The insights and actions that follow come directly from those lab leaders who were kind enough to share some of the secret sauce.

Disclaimer 2: If you're happy and you know, still read on.

Some of us may be satisfied with where we are and confident about our future. It is great to fall in that category. Some of us may feel strongly that lab medicine is solely about producing an accurate, low-cost result with a predictable turn-around time. Again, completely understandable and great for you and your team as you pursue this endeavor. Finally, many have been on the path to executing my recommendations below for some time. Regardless of whether you identify with any of these - I still encourage you to read through the items below. Even if it stimulates one new idea or gives rise to a single insight, or perhaps serves as encouragement - it will be worth the time invested.

The first question we ask is, "What does all this 'future of healthcare' and 'health system reaction' mean to the lab?"

Phil Styrlund, my mentor and CEO of the Summit Group, taught me the word that must serve as our focal point for transformation: RELEVANCE. To be relevant is to matter. When you are relevant, it means that you are recognizably, measurably, and meaningfully impacting what matters. Relevant people get attention and are invited to the table. They are actively engaged by other stakeholders. Relevant departments get funding and are invested in expanding and enriching their impact.

Much of what is happening may seem to be outside the "worry list" or control zone for Lab Leaders. However, solving these challenges for payers, providers, and the people they serve are the source of relevance within your health system. To matter in both the present and the future, Lab Medicine has to take ownership and control of these current and future challenges and demonstrate measurable impact. We have to actively and intentionally increase our relevance.

The second question is simply, "How?"

Although there is no one set path to "relevance," in this final chapter, I'm going to propose five categories of action you could consider. I'm going to label these as "swim lanes" to capture the blend between the conceptual elements within each and potential tangible actions that could be taken. Again, the purpose here is to provide a general framework and thought flow. These are not things each of us must act upon, but probably things all of us should discern.

The five swim lanes are:

1. *(Re-) Calibrate your thinking*
2. *Re-brand your lab*
3. *Develop an Enterprise Level/Future Driven written strategy*
4. *Execute a Performance Driving business process*
5. *Re-tool for the future*

Swim Lane 1: Re-calibrate Your Thinking

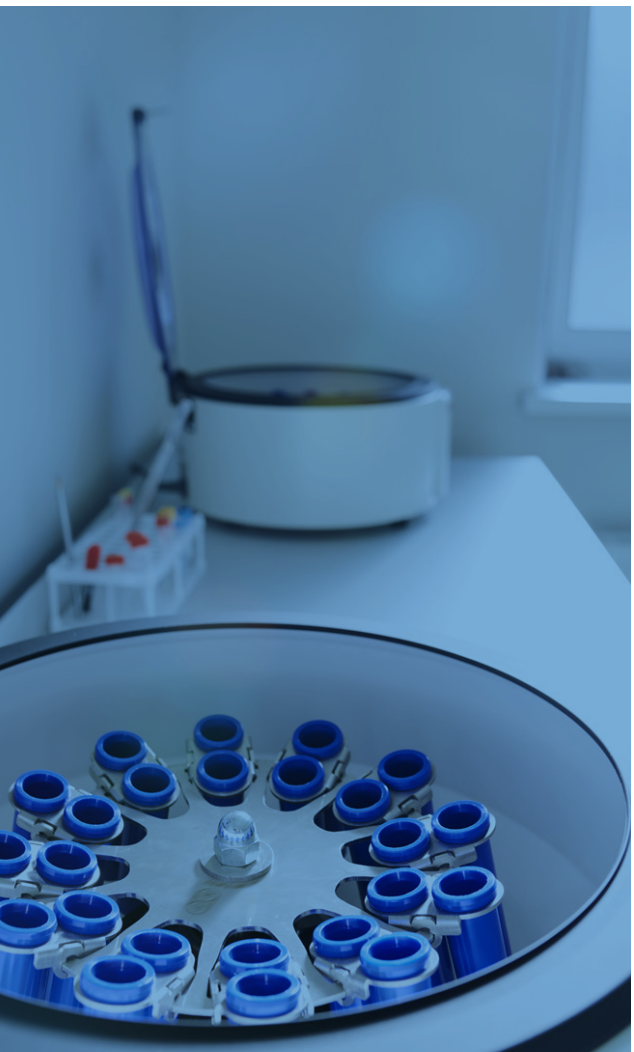
We've all heard the old axiom, "Whether you think you can or think you can't, you're right." It may seem trite, but studies in organizational behavior demonstrate the team's collective thinking, and that of its leaders sets the tone for behaviors and resulting performance. It is the basis of organizational culture. In other words, if you want "different" behaviors, capabilities, or performance, you have to (re-) calibrate to get "different" THINKING first - for yourself and your team. Senn Delaney, global leaders in culture, refers to this as "Culture Shaping." Addressing culture in its totality is beyond this paper, although you will find culture is one of the most essential hidden drivers for transformation and performance.

Even though you may not be able to embark on a big culture project, you can comprehend and underpin your team's critical thinking and beliefs to get the journey started. I would encourage that you maintain two domains of thinking/strong beliefs:

1. You can do it! Laboratory Medicine and the professionals that encompass it are in the preferred position to lead the change for their health systems. Naturally, the amount of change required can be daunting, but you and your teams CAN transform yourselves and your health systems. It is absolutely possible. You have to see yourself and your team as the hero in this health transformation story. It is within your control. Believe you can and ensure your team does as well.

2. The lab is a decision engine. The most sustainable line of thinking is embracing the fact that the insight is the source of value and relevance for the lab, NOT data. Data without actionable insight is a dormant commodity. A lab that solely produces data is a commodity manufacturer. Be a decision engine! Ensure you and your team see and talk about the lab as a decision engine.

Before you begin the transformation journey, you and your team have to ensure these two beliefs are embedded in your DNA or ***AT LEAST*** that you're willing to act like it until you believe it! As Jerry Sternin famously said, "It's easier to act your way into a new way of thinking than think your way into a new way of acting."



Swim Lane 2: Re-brand the Lab

If you were to survey 100 clinicians, administrators, or patients to describe the lab in a picture or one word, how would that feedback look? There is no doubt external stakeholders value the lab; however, it's likely the survey would conjure up images of racks of sample tubes, production lines, or perhaps lab reports with tons of patient results. Are these images sufficient for relevance? The question we want to ask ourselves is, "What is a lab image that signifies relevance for each stakeholder?"

Given this, the call to action is to clearly define and communicate a relevant PURPOSE for yourself, your team, and your customers. You have to proactively shape your stakeholders' image and experience by espousing and delivering against this purpose.

There are several frames you can use for your purpose. You can't be in the "manufacturing" or "data generation business" any longer (i.e., pictures of racks and production lines.) These are cost center descriptions that will lead to a path of irrelevance long-term. It would be best if you minimally saw yourself in the "decision-making" business and ideally in the "health performance" or "human flourishing" business. Think through your purpose carefully and choose the picture you want in each stakeholder's mind. Is it "The angel on the shoulder giving advice?" or "The personal trainer for patients or clinicians?" or "The performance engine for the C-suite?" All the while, use "relevance" as your measuring stick.

Once you have clarity on purpose, you will need to ensure you have targeted and committed to impacting metrics or processes underpinning your relevance. This is why defining the business you are in is so important. It helps us focus our energy and our creativity on WHAT MATTERS. It also enables you to align your team on delivering real value for your customers.

Consider the following value-creating areas:

- ✓ Measurably impacting the health system, KPIs called out by the Health System (especially direct cost)
- ✓ Measurably impacting other departmental KPIs
- ✓ Improving engagement and experience of the patient/consumer/community
- ✓ Improving efficiency and satisfaction of clinicians
- ✓ Delivering impactful population analysis
- ✓ Delivering Enterprise "Business/Clinical Intelligence"

"These are the type of things that create relevance because these are the things that matter to your stakeholders."

In the end, you shape the image of the lab. Although we may be at an all-time high of respect for the lab, the current image is not likely as relevant as we would like. Build and image that is.

Swim Lane 3: Develop an Enterprise Level/Future Driven written strategy

There are hundreds of frameworks and thousands of consultants that can help you develop a meaningful strategy. The critical element here is that it needs to:

1. Prepare yourself and the enterprise for the future
2. Support the enterprise goals in a measurable way
3. Exist in writing to be easily communicated and available for open discussion, evaluation, and debate.

Here are some very rudimentary steps for those looking for a quick place to start. (Each of these steps or the process as a whole can be aided by outside experts.)

1

Step 1: Understand the Enterprise's/Health Systems Strategy and Balanced Scorecard

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Every health system has goals that span clinical, operational, financial, and strategic domains. Most have written plans to achieve them. To be valuable to the health system, a lab must not only know these goals inside and out but be in a position to measurably demonstrate the lab's impact toward achieving them. We need to deeply understand these goals so that we can ask ourselves that simple question, "How can the lab measurably impact these?" This is the source of value and relevance for any department, particularly the lab.

2

Step 2: Assess the Population Served.

Any good strategy begins with a Situation Analysis. For labs, this begins with assessing the patient population. Several statistics/demographics could be helpful. In the end, we are trying to understand what uniquely defines the population we are serving, what is uniquely driving the cost, quality, and quantity of care, and what the lab can do to shape the future positively. Some of these metrics include:

- ✓ Medicare vs. Private Pay (with trends)
- ✓ % of charity care
- ✓ Disease Burden (with trends)
- ✓ Age (with trends)
- ✓ Social Determinant Heat Map and Summary

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Step 3: Assess the Current Physician Landscape.

A second element of the Situation Analysis is understanding the physician landscape and potential needs. The main goals in this step are to improve physician performance, positively impact physician burn-out, and grow the laboratory's brand or financial standing. Some key items for discussion could be:

- ✓ Potential growth opportunities (e.g., physicians referring to other labs)
- ✓ Opportunities to improve utilization or efficiency,
- ✓ Care gaps and ways to support closing them,
- ✓ Ways to augment or shift the lab service level to better support clinicians.
- ✓ Burnout metrics/drivers and why they exist

Step 4: Assess the Local Trends.

The goal here is to understand the landscape of care and the local players. What competitive health systems or labs exist, and what are they doing? Who are the most prominent local employers? Who are the patient groups, and what are their needs? Which reference labs are active? Are they proposing outsourcing for your testing?

Step 5: Self-Assess the Lab's "Future Durability."

This tool is called the Laboratory Relevance Compass (LRC) and, like a compass, is meant to help orient you where you are and more clearly define where you want to head. It is not perfect yet, but hopefully can get you on the journey. In the end, the goal here is to understand what areas you may need to address, competencies you need to build, and strategies you need to formulate.

Step 6: Define your objectives.

Set out, at least initially, some measurable goals for the lab. Here, I would encourage you not to focus on turn-around time, cost per test, or any traditional operational lab metrics. Although these can and should be a part of your KPIs, the opportunity for advancement here would be to take ownership of some downstream metrics (e.g., readmissions for cardiac patients). Make sure these are the downstream metrics that matter to your C-Suite and Clinician base (i.e. RELEVANCE). The point here is that we want to "USE" metrics as a way of creating our focus downstream. In any case, we need to align on the measures of success and the priorities.

Step 7: Brainstorm and Organize.

We've all been through brainstorming workshops before - This is no different. Bring the team together and start generating all the crazy ideas for how the lab can leverage the situation to help the system exceed its goals and achieve the objectives of the strategy. Then organize these into themes and have open discussion and debate about which should be prioritized and actioned. In the strategy vernacular, big themes are often called "initiatives," with the actions we'll take underneath called "tactics." Organize the discussion and outcomes into your initiatives and tactics.

Step 8: Write down the strategy.

It's not enough to have a strategy in your head. There are tons of frameworks and consultants that can help you shape this. The main thing is that it needs to be in writing to be interrogated, measured, adjusted, iterated upon, and communicated. A strategy that cannot be absorbed and understood by the entire team is a wish, not a strategy. Get it in writing.

Swim Lane 4: Execute a Performance Driving Business Process

Mike Tyson once famously said, "Everyone has a plan until they get hit in the mouth." In today's world, annual strategy and budget reviews are insufficient because we constantly get hit in the mouth with clinician questions or complaints, budget challenges, operational shut-downs, etc. The world simply changes too fast, with day-to-day challenges interrupting our capacity to reinvent ourselves meaningfully. However, thriving businesses, particularly those who have consistently adapted, have something in common. Those businesses operate with a "disciplined nimbleness" about them. They can adapt and communicate slight or wholesale changes in direction, disseminate information consistently, and shift organizational beliefs and behavior quickly and effectively. They do this through a disciplined time-bound repeatable process.

There are two keys to implement this:

Develop a Modified Lab Oriented Balanced Scorecard.

This is essentially an amalgamation report of performance vs. the KPIs AND the critical tactics/projects that will drive them. It should be second nature for the lab as our history is all about measurement. The balanced scorecard is a method of translating the health system's and lab's strategy into measurable performance objectives AND actions. These then can be tracked and reported to ensure priority, progress, and learning occur. KPIs are not unique or novel to the lab. There are two available opportunities for improvement, however. First, we call it "modified" as you want to ensure you are measuring your strategy's execution and interrogating whether a course correction is required. Strategies often go unexecuted or are executed without the desired outcome. You must be measuring your implementation. The second opportunity is a caveat around metrics. The metrics need to be more heavily focused downstream. This can't be overstated; these metrics need to represent outcomes vs. output. Turn-around-time is an output, and readmissions are an outcome. In other words, our lab scorecard needs to seek to measure downstream impact. Almost everyone reading this paper will have some 'scorecard' / report at which they look. The opportunities for improvement will generally help assess crucial strategies' execution and locate the metrics more downstream.

Codify a routine assessment / execution process.

Wolfgang Mieder said, "Life by the yard Is hard; life by the inch is a cinch." It would be best if you had a routine scheduled and prioritized process for evaluating the Balanced Scorecard, assessing performance, reviewing and discussing changes in the environment, and aligning on the coming week's or month's expectations and actions. Essentially, breaking execution down into inches. Several frameworks can be used here. I am a big believer in the 90 – 30 – 7-day framework: Every 90 days, you assess the previous 90-days in detail, review the strategy, and align on the priorities for the coming 90 days, adjusting the Balanced Scorecard accordingly. Every 30-days, you meet to discuss progress in depth of those key projects. Every seven days, you quickly review the priorities and set the agenda of actions, priorities, and definitions of success for the coming week. By working this way, we break execution and assessment down to the "inches" and keep energy and momentum for change and communication at an optimal level. We ensure that each week our path is re-enforced and short-term wins abound.

Swim Lane 5: Re-tool for the Future

Almost all labs are actively challenging their day-to-day operational efficiency. Engaging internal or external experts to evaluate our workflows, investing in automation, and improving our measurement of operational KPIs have been and will continue to be mainstays for lab leaders. It just isn't sufficient for sustainability, much less relevance in the future.

In the new era of re-tooling, an area of consideration should be assessment and investment in decision-making tools - both operational and clinical.

Operational Optimization: Have you automated operational / workflow decision points in your process to the optimal level? There are tons of decisions that your staff is making each day. You ideally want to focus that mental energy on critical decisions or crucial communications and not sifting through thousands of points of data. Also, it would help if you had control of your performance data in REAL time. You need to evaluate key metrics in the right time frames and react or "pro-act" as appropriate. Do you have middleware that is leveraging auto-validation to its fullest? Is your inventory management automated? Do you have a "lab contained and managed" business intelligence system for core metrics and KPIs that can feed or build your Balanced Scorecard? There is a myriad of operational nuances that can lower costs and improve quality - The solutions to which may be simple, with costs or investments minor in the grand scheme of the potential impact. Find the decisions or action points that are taking mental energy from your team and automate or support them to be made more effectively and consistently. Look for ways to surface new data or better organize existing data that enables you and your team to evaluate, discuss, and improve operations in a data-driven way.

Clinical Optimization: The real power in lab medicine is its expertise that supports up-stream and down-stream clinical, operational, strategic, and life decisions. Unfortunately, this expertise is more passively activated by clinicians (i.e., clinicians calling with questions) and analog (i.e., phone calls) vs. proactive and automated. With the advent of EMR systems, many health systems have attempted to embed this "automated decision-making" there. Unfortunately, the lab is often left out of the diagnostic equation or misses out on an opportunity for a rule or comment that could make or break a patient-level decision. Labs need self-contained decision engines that enable Lab Medicine professionals to write rules, adjust comments, and take a lead role in converting lab results into clinical insights. In turn, these clinical insights are turned into better physician actions and over the long-term, people's self-regulation of health. This does not replace what is done in the EMR- it is about enabling the lab to supply the EMR its optimal product … an insight. Do you have a rules-based decision engine/tool you can use in your lab to convert data into insights? Do you have the capability to truly automate and customize commentary/share clinical insights directly from the lab? If not, consider them places to investigate.

Another category of re-tooling is the acquisition and utilization of external data. Improvements here both increase the current relevance of the lab and de-risk it's future.

Few things outweigh empowering a health system with more visibility regarding its patient population and clinical staff's performance when it comes to improving relevance. Health Systems need to account for and strategically work through Social Determinants AND ensure they minimize clinical variation across caregivers and types - they

need an engine to help them "diagnose" the situation, identify/anticipate issues, and measure impact. Today the lab is in a great position to evaluate the population at large and physicians, only through existing lab data (e.g., incidence, prevalence, physician selectivity, etc.) However, suppose the lab could also effectively integrate other 3rd party information (e.g., national incidence and prevalence maps, social determinant heat maps, etc.) with the existing lab data. In that case, the lab becomes the population / public health engine. Strategically, it becomes invaluable to the health system. This is not as complicated as it seems. The challenge doesn't lie in the technology, but in the will to ask and seek the answers to right questions … in the leadership to derive insights and make recommendations for action.

The second element of external data has to do with the future of integrating "in vivo" generated data from peoples' homes, wearables, etc. Again, our future is not solely in sick care. People want to co-produce their wellness. There are some estimations that over 70% of the clinical record is lab-generated data. Whether this is true or not, there is no doubt that lab information is extremely valuable in the grand scheme of the patient record. However, as we look toward the future, more and more information (including traditional clinical lab information) will come from technologies integrated into people's daily lives. Whether they are wearables, smart toilets, etc., more and more data will enter individuals' health records from outside sources. For the lab to continue serving as the curator of information or proverbial "insight angel" sitting on the clinician or person's shoulder, it will need to be able to access, consume, and leverage this data with the lab's expertise.

This external lens is admittedly a tough one. However, as you think of investing in technology and staff, it's worth considering prioritization and action.

CHAPTER 3 DISCUSSION QUESTIONS:

- ✓ How should we define relevance? Why?
- ✓ How do our stakeholders (executives, clinicians, and patients) see us today? What is our current brand?
- ✓ How relevant are we? Why?
- ✓ How does our lab strategy align with the health system's strategy? How could we improve that alignment?
- ✓ What scorecard are we using? How could we improve it? How can we make it meaningful/insightful to the C-suite?
- ✓ What is our routine process for executing and augmenting our strategy? How could we improve it?
- ✓ How could we re-tool the lab for the future? What decisions can we seek to automate? How much decision support are we able to provide? What is our desired state?
- ✓ How do we see patient-generated data sources impacting our business? What external data are we already using? What data do we need to prepare to integrate or leverage?

CONCLUSION

We all can be very proud of our profession and the impact we've made in the fight against Covid19. We've always known our importance. The silver lining to this pandemic is that it has illustrated this more intensely to other stakeholders.

However, it's important to note that this euphoria for Lab Medicine is not likely to exist forever. There are real challenges our health systems will face in the coming years. Health care will change and shift in a consistent and ever-accelerating way. Lab Medicine can and should be a driver in this shift. However, it will require each of us to take a hard and critical look at how we define our role and our value. It will require the implementation of an iterative operating model to ensure we are prepared for the future, intentionally shape our labs' capabilities, and take responsibility.

No one will invite us. No one will bring us the answer. No one will ask us to change. It's up to us to lead the way.

Reference

Fredrickson, B., & Losada, M. (2005). Positive Affect and the Complex Dynamics of Human Flourishing. American Psychologist, 60(7), 678-686. https://doi.org/10.1037/0003-066x.60.7.678

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Jeremy has been at the forefront of creating concepts and strategies for addressing modern healthcare and leadership challenges. He has authored a number of papers on the health ecosystem and future of healthcare. Jeremy has also developed novel business frameworks to include Value Creating Innovation and Value Creating Collaboration. His main passions are future healthcare models, shaping healthy high-performance cultures, and servant leadership.

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