In the current environment, health systems have been forced to think creatively about how to maximize their capital dollars while determining the best way to maintain and procure clinical equipment. Leaders are not only faced with reduced capital budgets but are also responding to rapidly shifting patient behaviors as fear of infection is driving some patients away from the hospital setting. Hackers have also taken advantage of this fear and uncertainty, increasing the threat to medical devices during this vulnerable time.

LeAnne Hester, Chief Marketing Officer at TRIMEDX, met with three leading healthcare executives to discuss the challenges they have faced during the pandemic and share their best practices for maximizing device efficiency and safety while addressing the unique challenges of COVID-19.

LEANNE HESTER: What have been some of the unique challenges that you have faced as it relates to equipment and technology during COVID?

JARROD JOHNSON: We pride ourselves on our mission. As the largest public health system in the Midwest, our patients need us during this time more than ever. So, we never stopped seeing patients during this pandemic. We adjusted our operation to accommodate patients and implemented a telehealth strategy. We've conducted scenario planning, and are continuing to do that for a potential surge of COVID patients and we really want to be proactive, react accordingly and rapidly respond to ensure that we provide a safe environment for safe care. We opened our incident command center to monitor the
situation—we’ve been able to keep adequate inventory of supplies and medical equipment such as ventilators, and we continue to monitor the pandemic as it evolves. The conditions are changing daily, and we remain in a state of readiness to take care of patients.

SALLY DEITCH: Tenet has a national footprint, and it has been interesting to watch the developments across the country. The industry response to this pandemic has become fairly specific to the area of the country that you’re working and living in, including how the response has been dictated by the local departments of health or even at the state level. Still, we all have the same focus—when you have a strong group of operators, operators will ultimately figure out how to continue taking care of patients in their community. And whether that is through looking at ways that you extend the life of your PPE, reprocessing or buying new equipment, or reorganizing capital expenditures, regardless of where you work, that’s what strong operators do. I think we’re all having to learn how to play with different rules in different communities.

AIRICA STEED: We certainly had to be innovative in the wake of this pandemic, really balancing and juggling a great degree of challenges. We developed a tool that helps us to monitor capacity and predictively forecast, not only the need for our people resources and bed capacity, but also our daily PPE demand, as far as several weeks into the future. It helped to drive some of our decision-making as it relates to capital planning. We set balls in motion rather quickly to lease telemetry monitors because we were finding that telemetry beds were in demand, beyond the obvious critical care resources that were consumed by the pandemic. So, we quickly expanded our telemetry footprint across the board. We quickly learned that, given the long length-of-stay for COVID, our acute care hospitals were more or less turning into long-term acute care facilities, so we had to be rather innovative in terms of addressing that, and expanding telemetry capacity was key. We also learned a lot of lessons in terms of ventilators; while they were a high commodity in the beginning, we actually learned that high-flow oxygen therapy is the more preferred method of treatment for our staff, so we didn’t depend on ventilator equipment as much. We had to build the plane and fly it at the same time—there was no manual for resource planning, capital investments or how we’d get reimbursed, among other things.

LAH: There has always been a longstanding prediction that volume would shift out of acute care facilities into alternative care sites such as ambulatory surgery centers, imaging centers and even hospital-at-home. We see that shift accelerating as a result of COVID. So, not only are we looking at a new reality of care due to COVID-19, but we’re also seeing a fundamental change in how care is delivered. As care volume shifts to these settings, how do you incorporate that into resource planning?

JJ: We’ve had to reallocate and balance our resources, shifting some investments to COVID-related needs, while keeping ongoing operations going as well. Luckily, our county board president is very supportive and understands the critical role our healthcare system plays as it relates to our budget. We’ve always been exploring alternative areas of care, including telehealth, but even more so now because we’re finding some patients are afraid to come to the hospital. Video capabilities are now an important investment. We’re trying to deploy video technology across the entire system to reach patients who can’t easily access care.

**Top 3 Concerns with Long-Term Impacts of the Pandemic**

1. Reduction in capital funding
2. Cybersecurity risk to healthcare systems
3. Shift in care to alternative sites

Source: TRIMEDX Survey

“We had to build the plane and fly it at the same time—there was no manual for resource planning, capital investments or how we’d get reimbursed, among other things.”

Airica Steed
**SD:** We must meet our community where they are. In some cases, that means changing the location or methodology of care delivery. COVID-19 has certainly impacted the way we interact with our community, which means we have to find innovative ways to ensure that people are still receiving care. Even in the midst of COVID-19, emergent and urgent conditions still exist, preventative care still exists, and medically necessary procedures still exist. Planning for the future includes COVID-19, but also encompasses all health care needs of the community we serve.

**LAH:** We did a large study with Deloitte that projected that about 50% of patient volume will move from the hospital to other sites of care. That begs the question, are you going to need more equipment in these other sites? And if inpatient volume goes down, how do we avoid having excess equipment in those sites? If it’s the same type of equipment, such as IV pumps or telemetry monitors, can we move it and reallocate it to where the volume is going to make sure that we continue to support and manage those tight capital dollars? We're focusing a lot on that, while balancing it with ongoing operations during this pandemic. Considering that, what is one thing that would have helped you, or could help you going forward? What support do you need, not only as you navigate another surge, but also this new normal we're in?

**JJ:** I would say technology that allows for better access to care is going to be a priority for us as operators, as the mantra is, “everybody has a smartphone.” So I think we have the opportunity now to create more access beyond the hospital walls and into the community, even beyond our ambulatory sites, reaching patients where they are. We need to be getting the latest information from our public health agencies and be in close partnership with those agencies so that we can provide the best care, at the best place and at the best time. We also need access to capital. We still need to generate enough revenue so we can have access to capital so we can keep up with the innovations.

**AS:** We need to take up much more offensive postures as opposed to being on the defense all the time in crisis-by-fire. We need to learn lessons from the industry disruptors, the Amazons of the world, the Walmarts of the world, the players that are entering into the healthcare space that can help us accelerate much quicker, because healthcare is 10 years behind the rest of the business world. We need to start to capitalize on what those movements are as we head forward into embracing the next phase of this pandemic.

**LAH:** We've seen an increase of over 150% in cybersecurity threats during COVID, according to multiple sources, including TRIMEDX's own data. On average, we would typically see about 9 to 10

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**As a result of the COVID-19 pandemic:**

- **88%** of healthcare executives expect a reduction or delay in funding of capital projects
- **50%** of healthcare executives said their capital budget has been reduced by over 50%
- **20%** of healthcare executives said their capital budget has been reduced by over 70%

Source: TRIMEDX Survey
“We have to continue to be vigilant and diligent in working with our teams to make sure that cybersecurity is still top-of-mind.”

Sally Deitch

SD: Cybersecurity has become more important over time. I find it interesting to hear the number of threats you’ve brought up. We’re dealing with a situation we’ve never encountered before in any of our careers, let alone our lifetimes, and if I reflect on the performance of our teams from a quality standpoint, I think everybody’s so focused on COVID, and that may have created lots of opportunity for an opportunist to say, “Their guard’s going to be down.” And so it’s stunning to hear that number that you brought up, but I don’t doubt it. We have to continue to be vigilant and diligent in working with our teams to make sure that cybersecurity is still top-of-mind. Because, with everything else that is on their plate and the expectations of taking care of patients first, our staff need a reminder. We still need to accomplish our core mission—we still need to do all these other things to take care of people. And unfortunately, there are some not-so-great people out there who know that you’re focused on very sick people right now and may be distracted because of that.

JJ: We have a very robust cybersecurity plan across our entire enterprise. We’ve not made many changes as it relates to protecting our medical devices during the pandemic, because the tools that we employ not only provide details as to how many medical devices are connected to our network, but also provide insight into their health and outlines corrective actions that we need to take at any given time. So we’re pretty robust from that standpoint—we took that seriously pre-pandemic and now even more so during the pandemic. Our information services team is a very good team and the tools that we have provide a good comprehensive view into our network, which allows us to manage all of our network of medical devices.

AS: As we’ve had to quickly shift our enterprise to a work-from-home setting, our defenses had to be bolstered even more. I think that the key here is to continue to keep education and transparency front and center. We’ve had a very deliberate and focused effort on education, because a lot of the cyber threats are self-induced in a lot of ways, whether it’s phishing or other methods. We need to make sure we’re properly educating the workforce on how to optimize cyber health.

TRIMEDX

TRIMEDX is defining total clinical asset performance for the healthcare industry. As the largest independent technology-enabled clinical asset management company in the United States, TRIMEDX provides strategic planning and management of clinical assets to drive operational cost savings, free up capital for new strategic initiatives and deliver improved risk management and cyber protection. TRIMEDX was built by providers, for providers, and leverages a history of expert clinical engineering to manage over $30 billion in clinical assets across thousands of locations.