A Report from Our Inaugural Thought Leadership Forum
Driving operational excellence is a significant and urgent priority for leaders who attended the inaugural Healthcare Operations Innovation Summit by Qventus. Held in Minneapolis, in partnership with M Health Fairview, the one-day gathering convened over 80 leaders from forward-thinking health systems and hospitals across the U.S.

The group first discussed common challenges and why the status quo is insufficient. But the main objective of the day was to highlight new approaches to optimizing patient flow that combine artificial intelligence, behavioral science, and data science.

The discussions focused not on theory but on practical applications — how health systems today are significantly reducing length of stay, easing the cognitive burden on frontline teams, and improving patient care.

As a capstone to the day, the group visited M Health Fairview's new state-of-the-art System Operations Center to see first-hand how this health system is transforming system-wide operations through the Qventus platform.

This report summarizes key takeaways from the event.
Qventus CEO and founder Mudit Garg opened the day by validating the shared challenge that healthcare leaders face today: operational improvement is the #1 strategic priority, according to a recent survey of healthcare executives by 4sight Health and Qventus. Leaders overwhelmingly believe in the power of new technologies to improve operational effectiveness. But, as Garg pointed out, it takes more than just applying AI.

### Six Lessons For Applying Data To Healthcare Operations

1. **Past approaches are no longer sufficient.** Across the industry today, LOS reductions have plateaued because enterprise software tools, such as EMRs, have not been designed to support real-time operational decisions, and because lean performance improvement projects still rely on highly manual processes.

2. **Applying AI is critical but complex in healthcare.** Digitized health systems -- rich with data from EMRs -- are now turning to AI and machine learning. But healthcare data still relies on human input, often needs to be understood in context, and exists in a highly dynamic work environment.

3. **Behavior science is required to build new habit formation.** New insights alone are not enough. To build lasting habits that drive and sustain operational excellence, workflows require the combination of an intuitive prompt, a clear action, an appropriate reward, and meaningful investment.

4. **A closed-loop system is required to drive operational transformation.** By combining AI, behavior science, and data science, a closed-loop system identifies issues retrospectively, in real-time and in the future; orchestrates actions for frontline teams; and manages accountability to ensure continuous improvement.

5. **By activating this system, new insights unlock more improvements over time.** Rich operational data generated by the closed-loop system then gives leaders and teams unparalleled, quantified insight into new opportunities for operational improvement.

6. **Operationalization requires elegant design for people, processes and technology.** New technology capabilities need to be designed to integrate with new workflows and people processes, so that teams can take full advantage of the new capabilities.
Panel: Delivering Strategic Value Through Operations

“Getting operations right to address margin pressure needs to be priority number one. But we’re not going to get performance without liberating data and operationalizing it at scale.”
— David Johnson, 4sight Health, CEO
Thought leaders from McKinsey, HonorHealth, Philips Blue Jay Consulting, and 4sight Health offered additional perspectives on the urgency behind driving operational excellence:

- Patients increasingly expect a highly-efficient, connected healthcare experience, because their expectations are constantly being shaped by other consumer experiences.
- To gain a competitive edge in the war for talent, leaders need to improve the environment for frontline teams and reduce the burden of operational decisions.
- Ultimately, outcomes matter, and driving operational excellence with new technology requires expertise that is very different from implementing an EMR.

“It’s imperative for every organization to drive down the cost of care through operational reliability. We don’t have time to continue to rely on incremental improvements and slow-to-evolve EMR systems. Other industries have made dramatic operational improvements through automation, and the most competitive health systems today are embracing automation for patient flow.”

— Mudit Garg, MBA, Qventus, Founder, CEO
Panel: Operational Innovations in Emergency Departments

“ED operations haven’t changed for decades. But now, there’s a new paradigm for highly reliable teamwork. Every process should not only be better for patients but also easier for people doing the work. The idea of simplicity, elegance, and using technology to move our patients along is the future of healthcare.”

— Karen Murrell, MD, MBA, FACEP, TeamHealth, Vice President, Process Improvement
Panel: Operational Innovations in Inpatient Operations

“You can’t do process improvement well without having real-time data that’s actionable and moves you forward. With real-time data, leaders have transparency at their fingertips — you can’t hide the fact that there are 14 patients up with an EDD of today but discharge barriers remain. It makes it easier for leaders to hold teams accountable and work together to drive performance.”

— Beth Fuller DNP, RN, CEN, CCRN, CFRN Philips Blue Jay Consulting

Tiffany Chen
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Qventus
Director, Product Marketing

Tanya Mighty
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Karyn Baum
MD, MSEd, MHA
M Health Fairview
Vice President, System Clinical Operations, Professor of Medicine

Jill McCormick
MHSA
Lutheran Medical Center
Director, Performance Improvement
Intelligent Operations In Practice

With the grounding in the strategic case for operational efficiency, the discussion then turned to how leading health systems are putting intelligent operations into practice today.

At Mercy, the fifth largest health system in the US, Vice President of Emergency Services, Jeff Reames, MD, MBA, FACEP, described how leadership needed a system to drive reliability and efficiency across their EDs.

With Qventus’ prediction model to anticipate crowding events and prompt a “virtual hud-dle” at least 2 hours before they occur, Reames shared that far fewer crowding events occur; and when crowding events do happen, the model predicts them at least 2 hours ahead of time.

In addition, Mercy uses analytics to identify lab tests where there was sufficient unexplained variation to target for change efforts.

Using real-time relative performance feedback tools with providers, Mercy reduced unnecessary lab utilization by over $3.5 million.

SCL Health Lutheran Medical Center began their lean journey in 2013 and made meaningful improvements in LOS, but leadership knew that continued LOS reductions could not continue to rely on the heroic efforts of frontline teams alone. That’s where Qventus came in.

Jill McCormick, MHSA, Director of Performance Improvement at SCL Lutheran, described how the Qventus platform enables real-time orchestration with ancillaries, such as physical therapy (PT), where Qventus triggers an automation process, and PT teams can re-prioritize patients in real-time and without dozens of phone calls.

With Qventus, SCL Lutheran has reduced LOS by 0.2-0.8 day across units and is on-track to save $2M in the first year alone.

NewYork-Presbyterian Cornell had implemented multidisciplinary discharge rounds, but they were not consistent across units, and follow-up on discharge barriers remained a manual, burdensome process.

Tanya Mighty, MSN, BSN, RN, Care Coordination Manager at Weill Cornell, described how the new rounds with Qventus have “flipped the script” and empowered all members of the team in discharge planning discussions.

After launching Qventus in 2017, NewYork-Presbyterian has reduced LOS by 0.5 day, which equates to 35 additional beds — that translates to one entire unit of new capacity created without any new capital expenses.

Watch the Mercy ED case study video
Read the MedCity News article on SCL Lutheran’s discharge planning innovations
Watch the webinar on how NYP is using AI to reduce LOS
“My goal is to have 35,000 people coming in everyday feeling equipped to be able to drive improvement, to make us a little bit better, and to be able to translate our goals around quality and safety and customer service into terms that they can move and effect at any level of the organization. Because we have to be about our people.”

— James Hereford, M Health Fairview, President and CEO
As a case study for transformation at scale, James Hereford, President & CEO of M Health Fairview, outlined his vision for a health system that combines “autonomation” — a lean concept that means providing people with better information at the right time — and artificial intelligence.

Hereford outlined the forces that M Health Fairview and nearly every health system today face — downward revenue pressures, increased cost pressures, new innovations in consumer technology, and new non-traditional, disruptive entrants into healthcare. M Health Fairview’s goal is to own the complexity of healthcare for patients.

Hereford then challenged delegates to join him in reimagining how health systems operate and to invest in people and new solutions to move the industry.

Raghu Pillai, CBRM, Vice President, of Digital and Strategic Business Partnerships at M Health Fairview, then described the need for a proven technology partner that could also bring the change management expertise required for driving operational impact. Pillai further reinforced the message from first-hand experience that new technology capabilities require design with new people processes and workflows.

Other M Health Fairview leaders, including Sameer Badlani, MD, FACP, Chief Information Officer, and Mary Jo Huppert, BSM, RN CCM LBC, System Director for Inpatient Care Management, Operations Center, and Bed Placement emphasized the importance of leading with people and processes, and shared that the battle of patient flow is won by getting frontline teams to take action and driving results.
“We needed a partner who has the credibility of understanding operational challenges and a track record of driving impact. That’s why we partnered with Qventus.”

— Sameer Badlani, MD, FACP M Health Fairview, Chief Information Officer
Delegates then traveled to M Health Fairview’s cutting-edge new System Operations Center to meet leaders and frontline teams and see first-hand how the system works.

The System Operations Center leaders walked delegates through a sample of use cases on how the system works today, and how they plan to expand its use in the near future. These included:

- Use of the situational awareness visual system to facilitate system flow huddles
- Proactive management of next-day morning discharges across facilities
- Predictions for likely admits that require transfer and virtual coordination for transfer
Summit Speakers & Panelists

Rahul Agarwal  
MBBS, MBA, MHSA  
Qventus  
Head Of Clinical Operations

Sameer Badlani  
MD, FACP  
M Health Fairview  
Chief Information Officer

Karyn Baum  
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Raj Chand  
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Jamie Chang  
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Beth Fuller  
DNP, RN, CEN, CCRN, CFRN  
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James Hereford  
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Summit Speakers & Panelists (continued)

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DNP, MBA, RN, NEA-BC
HonorHealth
CEO-Hospitals and Chief Clinical Officer
Request A Demo

To request an invite for 2020 please email: sales@qventus.com