



HIMSS19: The Bottom Line

Amidst the Digital Industrialization of Healthcare, the Power of Information and Technology is Unmistakable

A fundamental shift is underway in the healthcare industry that will redefine the health delivery ecosystem, transforming how healthcare is delivered and financed.

No longer geographically-based, time and space-bound, and predicated on physical distribution models, the new digital delivery ecosystem will meet on-demand requirements and be constructed around end-user activity, accountability and personalized experience. It will harness technological and data-driven access models that connect across digital and physical mediums, unbounded in its delivery.

The digital industrialization of healthcare brings both new and intensified challenges — especially as providers identify where to play in the evolving healthcare value chain. Providers face pivotal questions about their strategic direction and organizational viability and sustainability:

HOW DO WE
ADDRESS GROWING
FINANCIAL
PRESSURES?

HOW DO WE
IMPROVE OPERATIONAL
PERFORMANCE
AND EFFECTIVENESS?

WHAT IS OUR NEXT
GENERATION
CARE MODEL
TO DRIVE OUTCOMES AND
VALUE?

HOW DO WE
WIN
IN THE MARKET ?

Leveraging technology will be a core part of the answer to each of these questions.

Every year, the HIMSS conference connects the world on the latest advancements in technology to address healthcare's most persistent challenges. This year, more than ever before, the message was clear: the power of information and technology is unmistakable in the industry transformation underway.

Leading health systems from across the globe shared how they are harnessing information and technology to reposition in the changing landscape and advance their strategic direction, organizational viability and sustainability.

HIMSS19

KEY TAKEAWAYS

Leverage technology to:

Identify, accelerate and realize sustainable financial improvements.

Faced with increasing capital demands and eroding margins, providers are looking beyond traditional cost-cutting. Technology plays a fundamental role in traditional margin improvement efforts; it can also play a central role to tackle the next wave of opportunity areas to impact value, including addressing clinical variation, service rationalization, care team roles and clinical processes. Technology will be essential to fundamentally redesign business functions to create lower cost positions, such as robotic process automation of key administrative functions. Leading health systems are also applying technology to redefine what is possible — such as supporting new virtual, on-demand access models that change how consumers seek and receive care.

Improve operational performance and effectiveness.

Performance improvement (PI) is a prerequisite to successful entry into the digital space — and a place for all organizations to start. IT capabilities must be integrated into broad PI initiatives. Digitizing inefficient and ineffective operating models will not allow organizations to stay competitive. Care costs are largely driven by decisions physicians make; they need to lead, own and drive the change that sustainable improvement efforts require. There must be confidence in the data and a technology platform to prioritize efforts, hardwire process changes, and measure and monitor results. Improvements in provider productivity, EHR efficiency, and consistency in system-wide care delivery and documentation must also be addressed.

Advance new care models designed to drive outcomes and value.

The real promise of digital is to fundamentally upend the entire care model to drive outcomes and reduce costs, with consumers at the center of the delivery network. Many organizations have discussed a patient-centric orientation for years, yet in their actions, most still orient around what works best for their physicians and acute care enterprise, and/or are anchored to established operating models. Technology and informatics are the underpinning to new care models. From using virtual care to extend and evolve care management across the continuum, to leveraging clinical variation management to optimize the care pathways portfolio real-time for the entire system, there are powerful ways to use technology to transform clinical care.

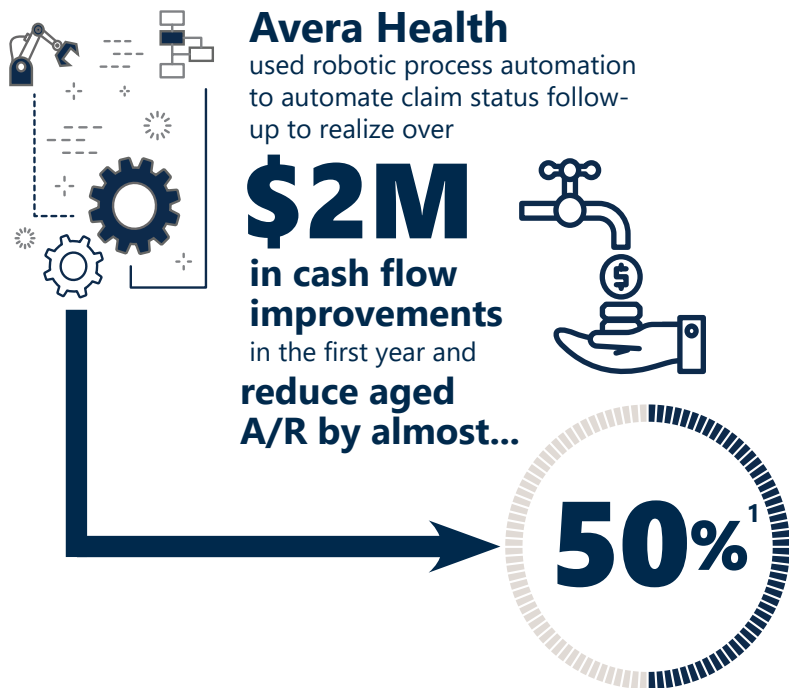
Drive strategic growth, competitive positioning, differentiation, innovation and scale.

As non-traditional entrants bring an inherently more consumer-oriented model to bear, individual expectations for convenience, access and affordability will only escalate — and extending reach and driving market differentiation will be even more essential for providers. IT itself has become more than an enabler — but the catalyst for how providers accelerate and advance their market position. Applying virtual technologies to access new patient populations, see more patients, find new revenue streams and reduce costs will allow providers to survive and even thrive in the evolving health delivery ecosystem.

The time is now to leverage technology investments to materially improve organizational performance in terms of cost, quality, outcomes and experience. With competing demands for capital and the plethora of solutions available, it is critical to have a strategic, coordinated approach to make smart choices. Technology investments should align with the organization's strategic direction as it embraces digitization, determines where to play in the value chain and executes to create real value.

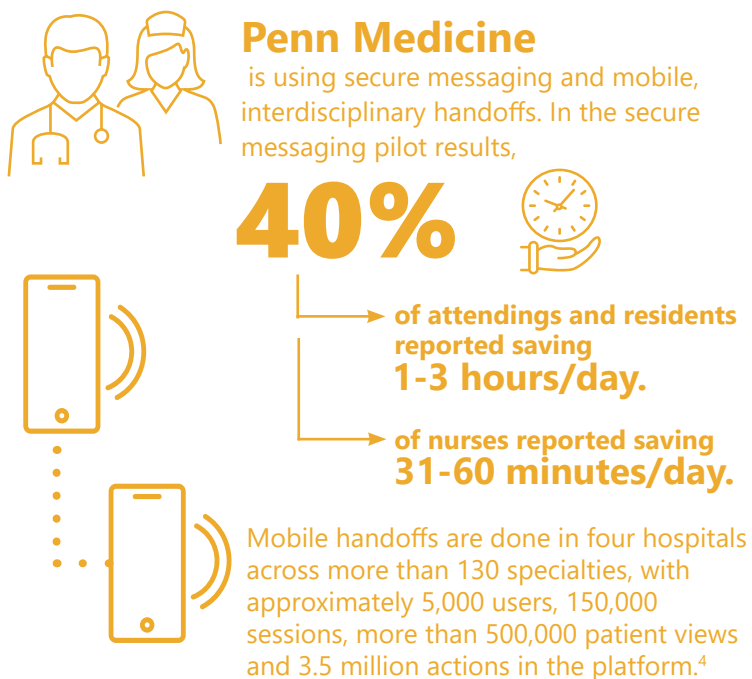
FOUR KEY TAKEAWAYS – STUDIES IN SUCCESS

Identify, accelerate and realize sustainable financial improvements.



- **UPMC Children’s Hospital of Pittsburgh** leveraged analytics for disease management, dropping the median LOS by 21 percent, yielding a per-case cost savings of 11 percent, and expanding the impact to 30 pediatric conditions to positively affect 30 percent of their 20,000 annual inpatient discharges.²
- **Dignity Health** boosted medication adherence to diverse patient populations by using the FHIR integration standard to provide simplified medication instructions in more than 20 languages. They anticipate achieving comparable results to peers, including VA Healthcare’s 77 percent improvement in medication adherence and Health First’s HCAHPS score increase of 49 percent.^{3, 13}

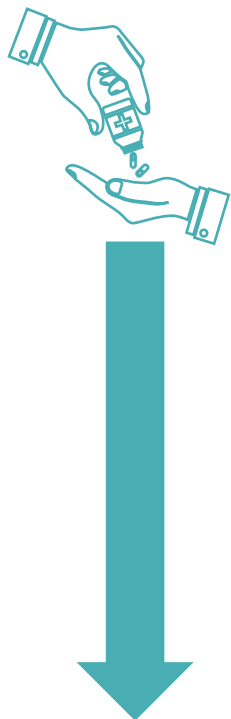
Improve operational performance and effectiveness.



- **Kaiser Permanente** leveraged the sharing economy concept to share high-value medical equipment across facilities without limiting their ability to expand service lines. The result: \$8.6 million in savings and a decrease in rental volume of 64 percent across two years.⁵
- **Memorial Hermann Health System** used visual analytics and the EHR to improve quality and safety and reduce costs. Through a four-pronged approach to reduce clinical variation and improve documentation, care progression and case management, the organization set out on a five-year journey to save \$900 million. In FY18, it saved \$44 million.⁶

FOUR KEY TAKEAWAYS – STUDIES IN SUCCESS

Advance new care models designed to drive outcomes and value.



Intermountain Health

is using technology to identify patients at high risk of opioid-induced respiratory depression, reduce over-prescribing, and increase safety in ordering and administering opiates in hospital settings.

They are on target to reach a goal of

40% reduction 

in number of pills prescribed for acute pain and a

15% reduction 

in the percentage of patients on chronic opioid therapy and benzodiazepene therapy.⁷

- **Hoag Memorial Hospital** implemented virtual reality for patient consult, intraoperative navigation and post-op checkup for skull base and pituitary tumors, improving patient access and experience. HCAHPS scores for hospital rating and recommendation were approximately 20 percent higher than the national average.⁸
- **Cleveland Clinic's** distance health program saw an increase in monthly virtual visits from 0 to 4,000 visits from 2014 to 2017, increased clinician utilization and reduced care costs. The majority of virtual visits had a wait time of 5 minutes or less and lasted 10 minutes or less, creating an improved patient experience. The goal: 50 percent of outpatient visits will be virtual and 25 percent of inpatient days will be at home by 2023.⁹

Drive strategic growth, competitive positioning, differentiation, innovation and scale.



Lehigh Valley Health Network

used consumer segmentation and analytics to develop targeted patient outreach and loyalty campaigns to accelerate service line growth.

- **Steward Health Care** automated referrals to enable their national network rollout and improve efficiency, care coordination and patient satisfaction. Their PCPs generate hundreds of thousands of referrals annually. Ninety percent of practices use the referral tool, average processing time is less than one day when no Medical Director review is required and less than five days if required.¹¹

Results in 2018



Twenty-seven campaigns and a \$1 million media investment generated nearly 13,000 leads, an 84% conversion rate and nearly

\$16.7M

in total payments (of which \$2.2 million was from new patients).¹⁰

- **Providence St. Joseph Health** created an "Amazon-like" provider directory to obtain a complete picture of their networks, identify gaps in coverage, power digital innovation and improve patient access. They leveraged this to establish a provider engagement program and are using supply-demand analytics to optimize network utilization, reduce referral leakage and increase appointment conversion.¹²

Sources

- ¹ Ayres, R. and Wickersham, M. (2019, February). How Web Bots Freed \$2 Million from a Billing Bottleneck. Presented at HIMSS19, Orlando, FL.
- ² Suresh, S. (2019, February). Advanced Analytics in Clinical Operations: Framework and ROI. Presented at HIMSS19, Orlando, FL.
- ³ Shields, T. and Toy-Ding, S. (2019, February). Dignity Health Boosts Medication Adherence with SMART on FHIR. Presented at HIMSS19, Orlando, FL.
- ⁴ Andreadis, T. and Zylstra, A. (2019, February). Call Center Turned Strategic Patient Engagement Engine. Presented at HIMSS19, Orlando, FL.
- ⁵ Loo, R. and Rothenhaus, T. (2019, February) \$8.6M in CapEx Savings: A Case Study on Sharing Medical Equipment. Presented at HIMSS19, Orlando, FL.
- ⁶ Lampi, P. (2019, February). Redesigning Clinical Care with Analytics. Presented at HIMSS19, Orlando, FL.
- ⁷ Hatfield, J. and Hellewell, J. (2019, February). Optimizing Health Information Technology to Promote Opioid Stewardship. Presented at HIMSS19, Orlando, FL.
- ⁸ Louis, R. (2019, February). Virtual Reality Delivers 360-Degrees of Patient Satisfaction. Presented at HIMSS19, Orlando, FL.
- ⁹ Padmanabhan, P. and Rasmussen, P. (2019, February). Digitally Transforming Patient and Caregiver Experiences. Presented at HIMSS19, Orlando, FL.
- ¹⁰ Suarez, K. and Yackanicz, L. (2019, February). Patient Loyalty in Healthcare: An Innovative New Approach. Presented at HIMSS19, Orlando, FL.
- ¹¹ Ottariano, K. and Trafton, H. (2019, February). Patient-Centered Referral Workflow Automation. Presented at HIMSS19, Orlando, FL.
- ¹² Moore, T. and Vaezy, S. (2019, February). Centralized Provider Data: Foundation for Digital Innovation. Presented at HIMSS19, Orlando, FL.
- ¹³ Case Study: Meducation® Improving Patient Satisfaction with Simplified Medication Instructions, Dignity Health.

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