

Optimizing patient flow

the key to operating margin improvement for health systems



Introduction

Health system leaders increasingly feel the weight of financial pressure. According to **Moody's**, nonprofit and public hospitals' margins hit a 10-year low in 2018 with median operating cash flow margins dipping to 8.1 percent from 9.5 in 2016. For smaller health systems with fragile financial operations, the stress on margins is even worse. Moody's forecasts that this trend will only continue.

As health systems continue to face declining margins, optimizing operations, particularly patient flow, presents a key area where hospitals can see meaningful improvement in cost savings, capacity creation, and quality of care.

Consider the following examples:



The average stay in a hospital costs the facility **\$1800 to \$2300** per day. This means managing length of stay (LOS) and avoiding unnecessary extra days is crucial, both for cost savings and additional capacity creation.



The average revenue from a patient visiting the emergency department (ED) is **\$1,233**. When an average of nearly **3% or more** patients leave without being seen (LWBS), often due to a long wait period, this missed revenue opportunity quickly adds up.



The mean cost of operating room time in hospitals is \$36 to \$37 per minute. Avoiding idle time is top of mind.

Why the Decline

Why have operating margins been on the decline?

Over the past decade, several macro factors have collided and impacted health systems' bottom lines:



The shift to value-based care and population health management increased the need to save cost and created top line and margin pressures.



Falling reimbursement rates and lack of negotiation leveraged with large insurers in a rapidly consolidating market.



Payment risks increased due to the shift in financial accountability toward healthcare consumers burdened by high out-of-pocket costs.



Government initiatives led to the introduction of new costly IT systems such as electronic health records (EHR) platforms.

In response to these macro factors, many health systems have been forced to consolidate. The strategy of consolidation - especially paired with the massive investments in EHRs over the past decade - was intended to create organizations with higher operational efficiencies.

However, consolidation synergies and the versatility of new EHR systems have often not lived up to expectations. EHR systems are “Systems of Record” and are not designed to drive front line operational actions. As a result, they have increased - not decreased - the cognitive burden on staff, requiring extensive data entry and providing information overload and alert fatigue.

Additionally, the presence of multiple EHR platforms within a single health system, combined with limited interoperability between EHR and other disparate IT systems, has added complexity to streamline operations across the entire organization.

Today, this plays out through significant operational inefficiencies on the front line, because hospitals can only react to events as they unfold, such as:



Surges in the ED as a result of an unpredicted influx of patients and additional staff called in only after it's too late.



Boarding in the ED while inpatient units are scrambling to discharge patients to create beds.



In inpatient units, patients waiting to be discharged, because ancillary departments have limited visibility into how to prioritize orders.

Why is optimizing patient flow key to improving operating margins?

Health systems want to maximize return on investments (ROI) from their consolidation efforts and EHR investments. By increasing operational efficiency, the pressure on operating margins can be relieved, both due to cost savings and capacity generation.

At the core of any hospital operation, is patient flow, which is broadly defined by the NEJM Catalyst as the “**movement of patients through a health facility.**” From the point of admission to discharge, hospitals need to coordinate the clinical care, staff, resources, and physical movement for patients while maintaining the highest degree of patient experience, quality, and safety.

As overall patient flow weaves through so many processes across hospitals, optimizing patient flow is no easy task. But given its cross-departmental nature, optimizing flow can have such a meaningful impact on the bottom line.

In the ED, for example, optimizing patient flow can mitigate patient bottlenecks from surges, resulting in a lower LWBS rate and reduced LOS (which captures significant cost savings and additional revenue opportunities that otherwise may have been missed).

In the inpatient setting, optimizing patient flow can meaningfully reduce the LOS and lower the overall inpatient days, resulting in cost savings and creating additional patient capacity.

The System of Action

To truly impact patient flow and move the needle on average LOS and other key metrics, a real-time operation management system can help.

Such a system shall not just be a “System of Record” but a “System of Action” that predicts operational events and recommends countermeasures in real-time, thereby reducing the cognitive load for frontline leaders. By presenting, carefully curated, actionable insights to relevant staff members and delivering them through thoughtful (mobile) user interfaces, a system of action enables the frontline leaders to take timely and appropriate action.

For health systems with multiple locations, providing visibility at a system level into departments at each facility and across all affiliated organizations allows managing capacity and resources holistically. It helps unlock the potential for synergies that was created as a result of hospital consolidations.

Improved operations and efficient allocation of staff and physical assets have other benefits too: better patient and caregiver experience, improved patient satisfaction scores, and improved caregiver productivity.

Impacting operating margins

Frontline operations staff at hospitals and health systems must deal with maintaining optimal patient flow despite a lack of situational awareness and visibility to real-time data with actionable insights. This leads to staff burnouts, poor utilization of resources, unnecessary delays, and communication gaps that impact the bottom line and clinical outcomes.

Health systems have tried dashboards, reports, and additional process improvement projects. But all these traditional methods have failed to deliver sustainable and scalable results.

Delivering care efficiently depends on real-time decision making by thousands of employees.

For these organizations to take advantage of passing opportunities, teams must be empowered at every level to take action. Progressive health systems need Artificial Intelligence (AI) based solutions that proactively streamline and automate workflows, allowing team members at all levels to work collaboratively and prevent patient flow issues before they occur.

These efforts do not only have a positive impact on patient experience and staff satisfaction, but they result in substantial cost savings and patient capacity creation to counteract the erosion of operating margins.

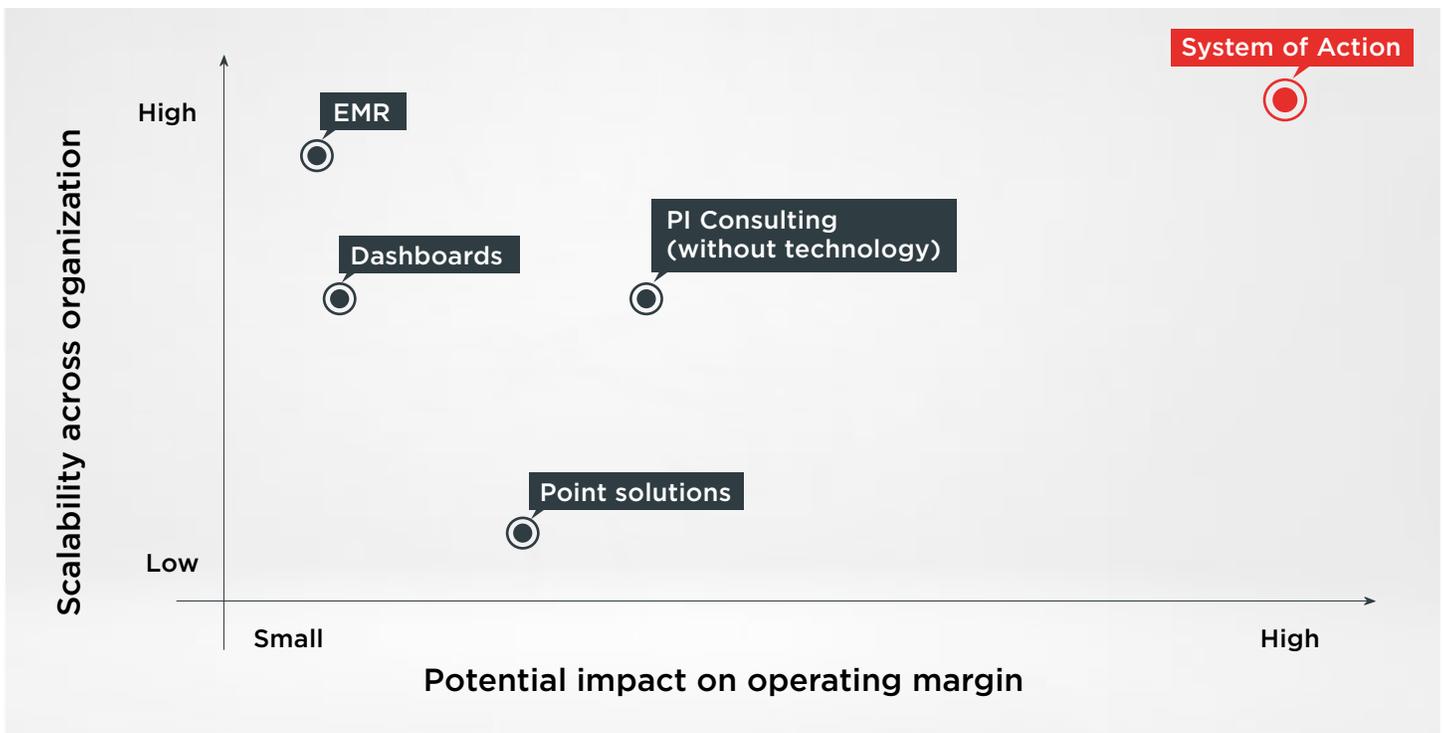


Fig.1: Initiatives and tools impacting operating margins

To schedule a meeting and learn more about the Qventus financial model and the projected impact of patient flow optimization on the bottom line of your organization, please write to: info@qventus.com

The Qventus mission is to simplify how healthcare operates so that hospitals and caregivers can focus on delivering the best possible care to patients. The AI-based software platform helps leaders and frontline staff make better operational decisions in real-time. This improves patient flow, financial performance, and patient and staff experience across the entire health system and in emergency departments, inpatient units, perioperative units, and outpatient facilities. Qventus recognizes operationalization of technology is difficult and provides deployment and professional services to support sustained results. Qventus works with clients to facilitate change management, adoption and habit formation, and setup of key governance and other organizational structures.