Healthcare technology

A "Mid-Office Revolution": how a shift in healthcare funding will improve patient outcomes, benefit society and create new opportunities for healthcare technology businesses.

Today's global healthcare systems are under significant strain: steady increases in volume of care required, greater complexity in the delivery of that care and the rising cost of treatment are battling against ongoing budgetary pressures.

As an attempt to combat these pressures, billions of dollars, pounds and euros have been invested over the last decade to upgrade 'patient facing' technology within hospitals and other care providers, such as Patient Administrative Systems (PAS) and Electronic Medical Records (EMR). This has had some impact, yet there is still an ongoing struggle for hospitals and other care providers to operate efficiently day to day.

David Issott, Partner, Hg

Why is this and what's changing?

We believe that the healthcare technology landscape will be transformed over the next decade. There is evidence to show that increased funding for systems that are less directly patient-facing, but support the operational activity of hospitals and other care providers, is resulting in improved patient outcomes.

There are also signs to suggest that significant funding will soon be redirected to these systems. In fact, we believe that there could be a £10bn addressable market for healthcare operational technology in the US alone.

We call this dynamic the "Mid-Office Revolution". This is an area of healthcare technology that we at Hg have followed for many years. We see this dynamic as creating significant value for businesses providing services to the "mid-office" of hospitals and care providers (often through Software-as-a-Service products) and we are actively supporting three companies that are both driving and benefiting from this shift: Allocate, MediFox and Rhapsody.

Encouragingly, not only do we see this new dynamic as creating opportunities to grow these businesses, but there is also a knock on positive effect for all healthcare stakeholders, including buyers of these systems (hospitals and other care providers), patients and, ultimately, wider society.

The Healthcare Technology landscape – an Hg model

Hg views the Healthcare Technology landscape as three main segments, according to core activity:

The Mid-Office

The systems that focus on the operational activity of a hospital, enabling the delivery of care. This includes processes involved with recording procedure performance (e.g. was the procedure correctly performed? Did it have the expected outcome?), enabling procedure completion (at the right time, by the right person, in the right place), flowing patients efficiently through the hospital from admission to departure, or ensuring interoperability across the multiple technology platforms used across a hospital. The technology systems in play may include Workforce Management, Patient Flow & Outcomes and Governance, Risk & Compliance (GRC) systems or Interface Engines.

The Front-Office

The systems within a healthcare organisation (e.g. hospital) which are primarily focused on determining what care is required for a patient. This segment enables processes such as: identification of the patient, supporting diagnosis & care delivery decisions, tracking care activities and medical systems of record. The technology systems which support these workflows may include Patient Medical Records, Electronic Medical Records, Admission Systems, Clinical Delivery and Medical Decision Support.

The Back-Office

The "Back-Office" are the functions supporting the administration of the hospital, for instance Finance, HR and IT.

> ❝ Not only do we see this new dynamic as creating opportunities to grow these businesses, there is also a knock on positive effect for all healthcare stakeholders. ❞

The Healthcare "Mid-Office Revolution"

The siloed nature of most global healthcare systems makes effective treatment across the 'patient journey' a complex challenge. Investment in technology provides one solution and, as a result, billions of dollars are spent each year trying to solve this challenge.

To date, perhaps intuitively, the bulk of this funding has traditionally been funnelled into technology supporting clinicians to deliver care, such as PAS, EMR and other clinical delivery systems (the "front-office"). What has been overlooked by comparison, is the important role that technology supporting the operational activity within hospitals and other care providers (the "mid-office") can play.

However, market trends are now changing to bring the mid-office into focus. This is happening for three main reasons:

1. **The redirection of healthcare funding:**
   Traditional investment in front-office systems is slowing down. The US, for instance, has just completed an investment 'refresh' cycle in PAS and EMR systems in order to comply with 'Meaningful Use' regulations. As a result both funding and management bandwidth is freeing up, allowing for further investment in operational software in the mid-office segment. We can see this investment wave only accelerating in the coming years.

2. **Increasing incentives for hospitals to run optimally:**
   Incentives to run hospitals well are becoming more prevalent. Fiscal pressures are continuing to drive hospitals to operate more efficiently, both in the private and public sector. There is also increasing recognition that patient outcomes are reliant on strong operational delivery throughout their patient journey. Furthermore, the way that healthcare systems are reimbursed, and regulated, are changing towards a system that rewards (or punishes) based on patient outcomes.

3. **Evidence of success:**
   Finally, early research data is also showing a positive correlation of patient outcomes with the technology maturity within hospitals. There is also a positive correlation of outcomes with the right level of staffing, how the flow of patients are managed through the hospital and care procedure compliance – all mid-office functions.

Opportunities and benefits

This change is creating enormous opportunity for businesses supplying technology and services to this mid-office segment. This new demand means that there is industrial logic in building mid-office hospital technology platforms, providing a number of different services from one supplier. These common platforms enable increased automation and efficiency across processes whilst offering a 'single source of truth' in improved reporting, data and analytics on operational performance.

There are wider benefits also. Effective early-stage treatment interventions for patients to prevent chronic ill health is often seen as the 'holy grail' for the healthcare sector. With increasing evidence that better healthcare operations result in better healthcare outcomes, we also see a benefit to wider society, reducing the need to follow up treatment and the development of chronic conditions.

At Hg we focus on providing capital to transform businesses and the sectors in which they operate. We see strong evidence for the "Mid-Office Revolution" and, as investors in this space, we are excited to partner with companies focused on this segment to deliver better healthcare outcomes for the entire healthcare ecosystem: including patients, providers and payors alike.

David Issott

David is a partner at Hg. He sits on Hg's Realisation Committee. David has a particular focus on technology investments in the healthcare cluster.

David has worked in private equity since 2004 and joined Hg in 2012. David currently sits on the boards of Allocate Software, Commify, Evaluate, Rhapsody and Trace One.