The healthcare industry at the start of the 21st century is going through an accelerated phase of transformation. The intersection of digitisation, computing power and the Internet has brought about the democratisation of information and sparked new waves of innovation. These shifts are changing the way we deliver healthcare. Easy access to knowledge and greater demands for transparency are changing the relationships and expectations between patient, provider and payor.

In the face of all of these changes, navigating the healthcare landscape becomes seemingly more complex. The private sector faces many challenges as companies will consistently need to calibrate and trim their sails to adjust to the prevailing conditions, to ensure that they are able to continuously deliver safe, efficient and effective healthcare while balancing commercial interest.

There are many development themes that underpin these tectonic shifts and this article hopes to discuss some of them.

Digitalisation of healthcare

Many industries such as banking, logistics, and food and beverage have had their turn in the area of digital transformation. It would seem to many that the healthcare sector has fallen behind in this process, but akin to the waking of a sleeping giant, it is clear that we are well into the cycle of healthcare digitalisation and the impact will be great. The recent COVID-19 pandemic has only accelerated the take-up of healthcare digitisation in areas of healthcare delivery, where the demand for offline to online experience has increased.

Driven by influences from other industries, the new health consumer is now more discerning – translating experiences like QR code scanning, biometrics, online "check-in" and e-appointment booking to their expectations when consuming healthcare services. The healthcare sector has to pivot to serve these demands while ensuring that the principles of data protection, closed-loop ordering and information integrity are not compromised.

In order to meet these expectations, an entity would have to embark on strategies to increase core capabilities and digital infrastructure. An analogy to this would be in the construction of a building by first ensuring the "back-end" foundations and supporting structures are in place. In time, the "front-end" externalities may be added easily when required, building upon the existing infrastructure that has already been put in place.

Other areas of digitalisation can be found in the integration of new innovations, such as machine learning, algorithms and artificial intelligence, into current medical processes and products, giving rise to new applications. For example, conventional drug discovery processes starting from lead identification to clinical trials are severely costly and may take several years. The recent advent of computation models has given rise to in silico approaches that have attracted much interest, as they accelerate the drug discovery process by reducing the uncertainty through eliminating or selecting drug compounds more efficiently, thereby reducing the investment in time, labour and cost.

In another example, blockchains are increasingly used to provide a trust layer to medical reports and diagnostic results. A recent widespread application is the verification of COVID-19 vaccination statuses for air travel. Other applications can be found in clinical trials, medical insurance and medical records. Furthermore, with the addition of smart contracts, the ability to create decentralised autonomous processes that govern and direct the flow of information, services and monies will eventually also transform the way we interact with the multiple stakeholders in healthcare.

Public-private partnerships

The lines between public and private healthcare will become increasingly blurred due to the increased interaction between both sectors. Traditionally, the engagement of the public sector with private healthcare might incorporate elements of financing, design, facilities, maintenance, operations (eg, information technology, environmental services) and delivery of clinical and clinical support services. There is scope for the expansion of these interactions.

The increasing demands on the public healthcare system will push for greater cooperation between the two provider buckets. While the current models of collaboration revolve around the continuum of specialists, ancillary services, diagnostics, inpatient and emergency care, there will be opportunities to expand these partnerships to wellness, pre-hospitalisation (eg, preventative and primary care) and post-hospitalisation services (eg, rehabilitation, home care, palliative care).

These partnerships might help rebalance the priorities of healthcare delivery – cost, quality and access. These pillars need not be mutually exclusive and will be best achieved through collaborative models.

In order to prepare for these partnerships, private healthcare organisations ought to participate with public healthcare service provision projects, increasing their involvement incrementally. Private healthcare organisations might have to reorganise their care models to accommodate elements of public health deliverables that might not traditionally have been a priority. Some of these concepts - valuebased healthcare, gatekeeping, bundle payments and capitations - have to be addressed in order for such collaboration to occur. By building such capabilities internally while maintaining commercial viability, private organisations can then pivot to successful and sustainable public-private partnerships.

Value-driven outcomes

The previously discussed trends of digitalisation, democratisation of information, and transparency have contributed to a better appreciation of healthcare outcomes. With the healthcare consumer being more discerning in such matrices, the providers will be incentivised to signal and deliver quality by demonstrating data that show consistent, reproducible and superior results in areas of processes, clinical quality and patient experience.

Value-driven outcomes will lead to further segmentation of procedures and standardisation of raw materials required to deliver such a service. Unless counterbalanced with case-mix selection, there will be a risk of "cherrypicking" – selecting choice patients that will only perform well in order to reduce the cost of service.

Organisations might have to prepare for these value expectations by aligning practices with international (or local) standards and selecting appropriate indicators for benchmarking. With the continuous cycle of checking, executing and optimisation, organisations will be able to appreciate and prepare for this trend more fully.

Human resourcing

The recent COVID-19 pandemic has brought significant paradigm shifts in the way we work and the environment we work in. Coupled with a new generation workforce that is familiar with on-demand, remote and digital platforms, the healthcare company of the future will need to make changes in human resource policies to attract and retain their staff. There will be a greater emphasis on moving usual paper-based processes onto digital platforms and stronger demand for flexible working hours, with performance tied to productivity rather than presentism. Healthcare companies will have to engage their workforce beyond the traditional tenets of salary or job scope; the importance of culture, purpose and sustainability become increasingly important criteria in employee participation and talent retention.

With a greater emphasis on human resources, there will be upskilling and higher expectations on productivity and value from each employee. Tasks considered repetitive and manual will constantly be required to be right-sited or eliminated – whether by process change, automation, robotics, outsourcing, or digitalisation. Companies who are investing in these areas will be ahead of the curve in ensuring that the right people are in the right place and engaged in doing the right jobs.

Knowledge workers

The pace of information creation is relentless and inevitable. More data is created and synthesised into knowledge daily. These occur in all major areas clinical quality and outcomes, patient experience and service delivery, operations and process engineering and lastly, leadership and organisation structure.

There is a constant need for a business unit to train and retrain our workforce to cope with the innovations and changes to care delivery. On-the-job-training will have to become more structured and intentional; less rudimentary than "see one, do one, teach one".

The process of such learning will also change; it is of high opportunity cost for organisations and individuals to take large chunks of time off to pursue formal month- or year-long courses. Continuous learning will be bite-sized and will require less time off work. Udemy, Coursera and LinkedIn Learning, to name a few platforms, are becoming widely accepted and recognised as evidence

of self-improvement and upskilling. In juxtaposition to the full-time, on-site and lengthier courses, these bite-sized programmes are being seen as an ideal alternative - delivering similar knowledge and outcomes without the disadvantage of opportunity cost and long absences from work.

Environmental, social and governance

The healthcare industry generates a large amount of waste, has the advantage of being able to arbitrage on information asymmetry and holds significant responsibilities as outcomes are measured not just in dollars and cents, but human lives and clinical outcomes.

There is a palpable emphasis on the importance of sustainable organisations that do business in a responsible way. Shareholders and investors will place greater emphasis on responsible behaviour, good governance and environmental consciousness, applying these non-financial factors as part of their analysis process to identify material risks and growth opportunities.

Apart from shareholders, consumers are also making purchasing decisions based on such factors. Companies will need to constantly interrogate their processes with this environmental, social and governance lens, and develop relevant capabilities by assigning both human and financial capital accordingly.

Concluding thoughts

The factors listed above are but a few diverse key developments. They represent the multiple tensions that exist in the marketplace. Healthcare businesses are not immune from such forces and companies that operate in these areas will constantly need to calibrate and optimise resource allocation in these areas to effectively navigate the healthcare landscape. •

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