TAKING THE PULSE OF DIGITAL TRANSFORMATION IN HEALTHCARE - SOUTH EAST ASIA

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EXECUTIVE SUMMARY

Healthcare providers across South East Asia face a rapidly changing market. Patient demographics are shifting, with an aging population and growth of chronic disease. Costs and care complexity are rising significantly. Patients are becoming educated consumers with high expectations for quality of care and care experience. Despite the growth in demand for premium-quality care, there is increased competition and pricing pressures. This is all taking place against a backdrop of pervasive disruption, where new business models, technology advancement, and clinical change make it increasingly perilous to operate in 'business as usual' mode. Digital Transformation - the process of adapting existing business practices to new digital methods to increase efficiency and keep up with rapidly-changing market demands, is a key topic of discussion.

> InterSystems recently surveyed senior executives at private hospitals across the region. **Our quest: to find out what's driving Digital Transformation, what the barriers are, where these hospitals are in their respective digital journeys, and where they anticipate being by 2024.**

At the heart of Digital Transformation is the shift toward becoming a data-driven organization. Healthcare, however, has long been an information technology laggard. Digital Transformation requires a mindset of treating data as a key asset, building a cohesive business strategy to capture and share data to enable smarter care, better business decisions, and new ways of working.

What impact will Digital Transformation have across healthcare in South East Asia? How do we implement it? Are we really committed?
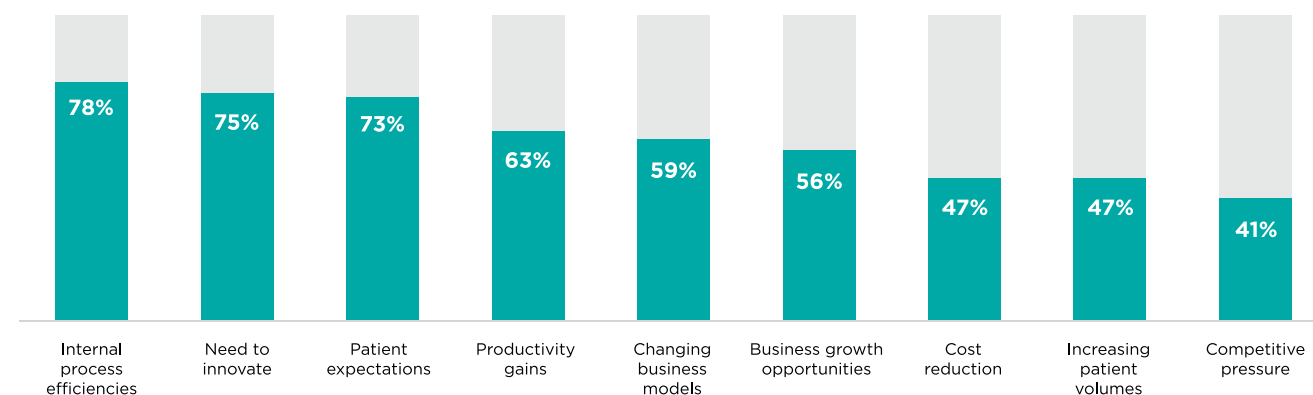
InterSystems polled 70 senior executives at 28 leading private hospitals across the region, to better understand the journeys currently underway. A majority of responses came from Indonesia, Malaysia, the Philippines, and Thailand. Across the board, respondents reported that they are part of an organization on an ambitious digital journey. Some are in the early stages and others are much further along.

There are significant barriers, including lack of systems interoperability, security threats, change management and resourcing challenges.

Is our region ready for digital healthcare transformation? As our survey results reveal, there are great expectations for change, but a lot of preparation and planning is needed to get there.

WHAT WE FOUND

01. WHAT FACTORS ARE DRIVING DIGITAL TRANSFORMATION AT YOUR ORGANIZATION?

Internal process efficiencies	Need to innovate	Patient expectations	Productivity gains	Changing business models	Business growth opportunities	Cost reduction	Increasing patient volumes	Competitive pressure
78%	75%	73%	63%	59%	56%	47%	47%	41%

*Multiple answers were allowed.

MOVING DIGITAL TRANSFORMATION FORWARD

Digital Transformation of healthcare in South East Asia has the potential to create profound change. It is now urgent work in order to deliver sustainability of healthcare systems, to improve quality of care, and to meet changing patient requirements and their growing expectations.

While it is imperative to improve organizational capabilities, this must be done against the backdrop of a clear vision for organizational transformation and a well-planned, integrated roadmap for success.

There is no shortage of new technology available in the market to address specific capability gaps. However, in InterSystems experience working with leading healthcare organizations around the world, we see it as imperative to begin with a clear, achievable vision. It's okay to start small, but think big. Make sure everyone understands the goals and is committed and empowered to making it work. Take an agile approach and identify early benefits along with a clear view of return on investment.

It is important to begin with a strong technology foundation, including proven operational systems that will evolve and scale with your business, enable advanced data management, facilitate innovation, and provide system interoperability – within and beyond your organization - using the latest standards.

Becoming a data-driven organization is no longer an option, it is critical to surviving and thriving in a rapidly changing healthcare world.

Ready to take the next step?

Talk to InterSystems about building and executing a winning Digital Transformation strategy that incorporates strong operational systems and brings data together for a full view of your patients, and your business. We would love to share our experience in helping organizations like yours capture, share and use data for

By 2024, over half of the respondents state that their digital systems will support cohort analysis and data analysis for proactive clinical intervention, 59% for standardized evidence-based care, and 63% for clinical decision support.

Respondents also expect to make progress with care coordination within and beyond the hospital despite the wide-spread interoperability challenges that were raised. Systems support for care coordination across the organization is expected to increase from 41% to 64% in the next five years. Systems support for care coordination with outside organizations is expected to increase from 22% to 58%, reflecting a broader global trend toward the expansion of connected health and care systems.

Respondents also anticipate a shift away from a straight fee-for-service model. While only 16% stated that today's digital systems currently support value-based care initiatives, 64% of respondents expect this capability in the next five years. This will require much more sophisticated data analysis than currently available.

Systems support for patient wellness strategies is expected to double in the next five years, which indicates a fundamental shift in the way private hospitals interact with patients.

As the research results suggest, data-driven healthcare is coming to South East Asia and it is coming quickly.
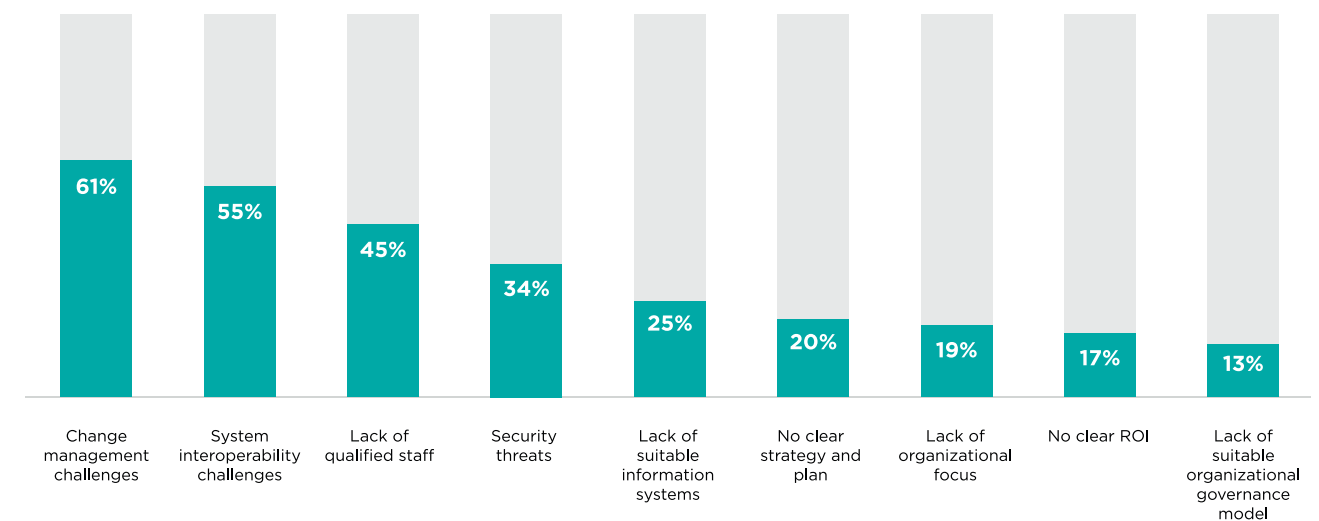
Innovate or fall behind: Efficiency dividends and patient demand drive digitization

In South East Asia increased life expectancies, population growth, urbanization, greater prosperity and the ever-expanding middle class it heralds, combine to drive colossal demand for more and better healthcare services[1]. Patient expectation for affordable, accessible and high-quality healthcare has risen across the region.

Not surprisingly, efficiency and productivity gains are leading drivers for investment in Digital Transformation. However, hospitals are also responding to increasing patient expectations. Today's healthcare consumer is savvy and expects a personalized, efficient experience that mirrors the consumer world and technology will be key to delivering on that goal.

02. WHAT BARRIERS ARE LIMITING THE DIGITAL TRANSFORMATION OF YOUR ORGANIZATION?

Change management challenges	System interoperability challenges	Lack of qualified staff	Security threats	Lack of suitable information systems	No clear strategy and plan	Lack of organizational focus	No clear ROI	Lack of suitable organizational governance model
61%	55%	45%	34%	25%	20%	19%	17%	13%

Tackle change management and integration unpreparedness to move forward

The biggest barrier to Digital Transformation is change management/internal resistance, cited by 61% of respondents. Digital Transformation has the potential to radically change the way care is designed and delivered. However, technology-driven change has a poor track record in healthcare historically. Change management is typically underfunded, clinicians are often not adequately involved. This challenge is exacerbated by a lack of qualified staff (45% of respondents cited this as a barrier) to plan and execute Digital Transformation initiatives.

The systems interoperability challenges that have plagued the healthcare industry for years are also a significant impediment to achieving Digital Transformation (55% of respondents cited this factor). Digital Transformation relies on the availability and aggregation of data and while interoperability standards are maturing there is quite a long road ahead to solve this challenge – both within and beyond an organization's walls.

Cyber-security is a massive and growing concern with healthcare data being a primary target for criminals.

Security threats are ever-changing and security measures require constant upgrading. There is a high cost in not adequately protecting data, requiring robust planning and governance.

(1) Lago, Christine, in CIO, What's the state of healthtech in Southeast Asia? April 26 2019 https://www.cio.com/article/3391379/whats-the-state-of-healthtech-in-southeast-asia.html

Which of the following systems and capabilities does your organization currently use?
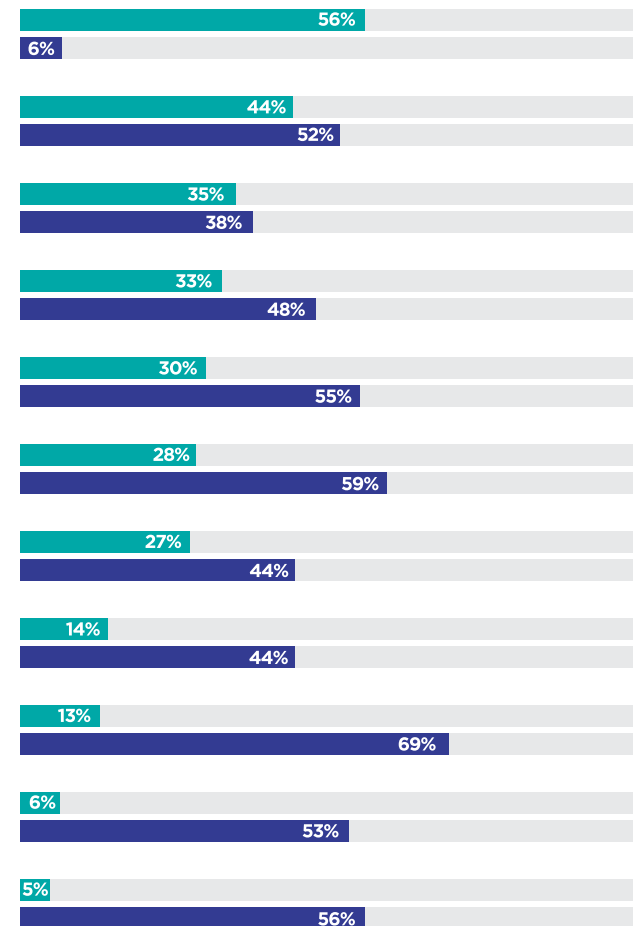
Which systems and capabilities do you expect your organization to use five years from now?

| Capability	Currently use	Expect in 5 years
Paper-based records	56%	6%
Mobile devices (e.g. tablets, mobile phones) for clinical care	44%	52%
Data interoperability for care coordination outside your organization	35%	38%
Computers on carts or laptops at bedside	33%	48%
Mobile apps for patients	30%	55%
Patient portal	28%	59%
Data interoperability for care coordination within your organization	27%	44%
Patient generated health data (e.g. from wearable devices)	14%	44%
Real-time big data analysis	13%	69%
Remote patient monitoring systems (e.g. in home devices)	6%	53%
Artificial Intelligence	5%	56%

Say goodbye to paper in South East Asia

Currently just over half of respondents are still using paper-based records. However, the expectation is that number will drop to just 6% in the next five years. This is an important shift since digital operational systems are a critical early step in the Digital Transformation journey. Once an organization begins capturing patient data electronically then those data assets can be put to use. Respondents showed strong expectations for the ability to conduct artificial intelligence (56%), real-time big data analysis (69%), and sharing of data for care coordination in the hospital (44 %). They also anticipated a significant shift in patient interaction and engagement, with 59% expecting to have a patient portal in the next five years and 44% expecting to manage patient generated health data. They also expect to extend care into the home with remote patient monitoring systems (53%). These capabilities must be predicated upon a sound data management strategy

What advanced capabilities do your organization's digital systems currently support?
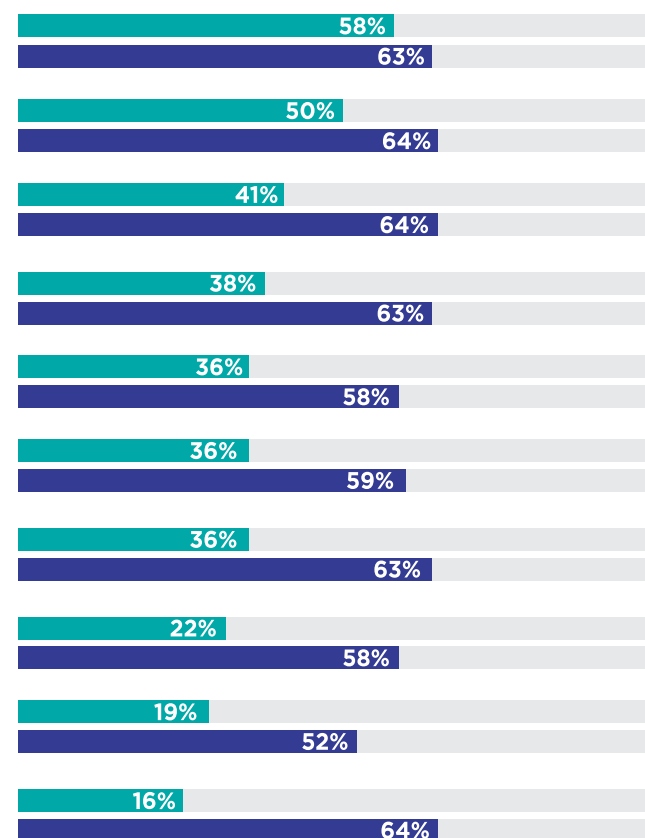
What advanced capabilities do you expect your organization's digital systems to support five years from now?

Capability	Currently support	Expect in 5 years
Analyze data to improve patient experience (e.g. reduce waiting times)	58%	63%
Analyze data to drive better business decision-making	50%	64%
Care coordination across the organizations (e.g. between hospitals and clinics)	41%	64%
Empower clinicians with clinical decision support systems	38%	63%
Analyze data for proactive clinical intervention (e.g. for patients at risk)	36%	58%
Standardized, evidence-based care (reducing variation in the way care is delivered)	36%	59%
Patient wellness strategies	36%	63%
Care coordination with outside organizations	22%	58%
Analyze clinical information about groups (cohorts) of patients	19%	52%
Value-based care initiatives (alternative to fee-for-service reimbursement)	16%	64%

Great expectations, can you deliver?

When we asked about advanced capabilities supported by the organization's current digital systems, the gap between the current status and expectation for five years from now was large. While basic data analytics strategies are employed widely right now, by 2024 respondents expect to make significant strides forward. For example, less than one-third of respondents stated that their digital systems currently support cohort analysis or data analysis for proactive clinical intervention. Just over one-third state that their digital systems support clinical decision and standardized evidence-based care.

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