



PLANNING AHEAD

Is Asia's Healthcare Sector Ready for the Future?
- Summary paper of main report -

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ABSTRACT

The survey sought to receive from the respondents their thoughts on the current state and use of IT within their organisations, and the strategic value given to electronic record management (ERM) as they moved into the future. Investigated topics included:

- What is the importance given to ERM?
- How advanced are public sector health organisations in the region in scanning and imaging for converting paper forms into digital formats?
- What role does outsourcing play in Asia Pacific's healthcare sector?
- What have healthcare organisations adopted within their strategic plans as offices move toward greater automation?
- In order to improve patient care and workflow, who are the decision makers and which departments are involved in IT initiatives?
- What are the priorities for deciding how to implement major projects?

EXECUTIVE SUMMARY

In *Planning Ahead – Is Asia’s Healthcare Sector Ready for the Future?*, researchers sought responses from public sector IT Executives in The People’s Republic of China, Hong Kong, Malaysia, The Philippines, Singapore, Thailand, South Korea and Taiwan. The survey attracted 169 complete responses in total, with representation for respective roles being:

- 32% from senior management;
- 53% from middle management; and
- 15% from patient care staff, department coordinators and administrative staff.

The majority of respondents (96%) reported that ERM of patient information over the coming years will be ‘Very Important’ or ‘Somewhat Important’. Hence, both frontline staff and the executive office are taking ERM very seriously.

Most respondents agreed on the importance of Quality Management in ERM, especially over data collection and institutional transparency. Deciding how to identify and then fill the gaps is a challenge that is especially pressing in the healthcare sector, and IT Departments have generally been given autonomy and responsibility to decide how IT budgets will be spent. The only responses where IT Departments were not the most responsible for IT investments were from Singapore, where roughly equal decision power is shared by the IT Department, Department Heads and the CEO.

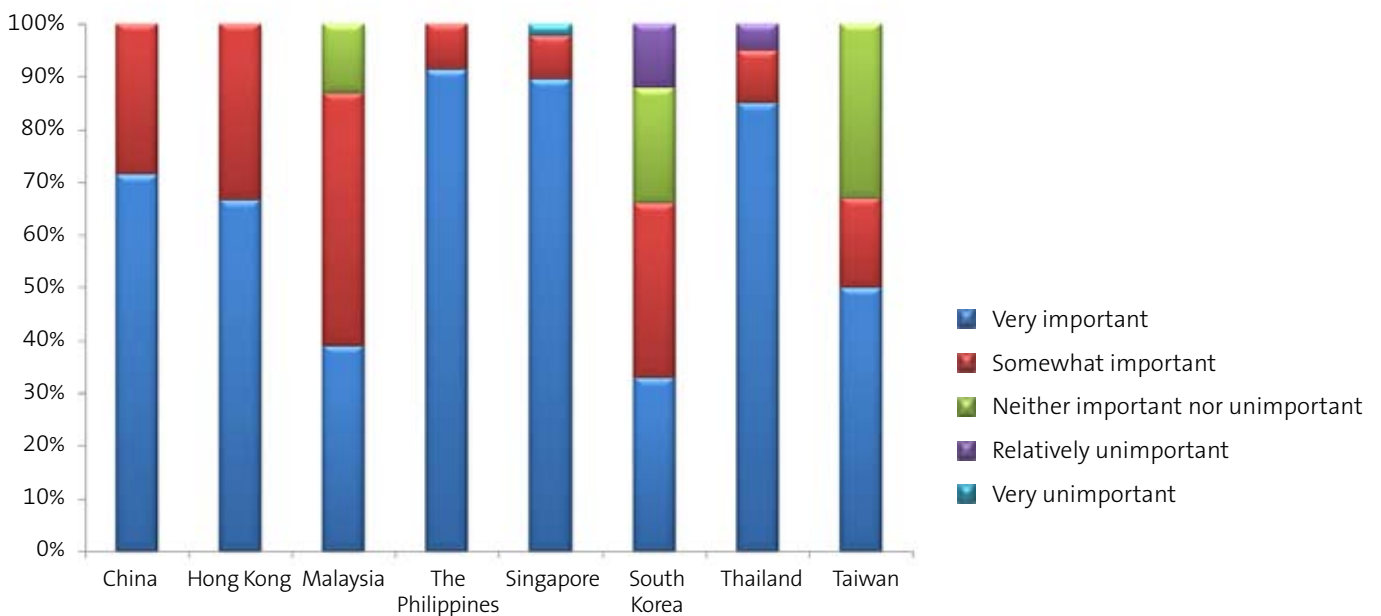
Hospitals and other such organisations are still heavily dependent on paper-based processes to manage workflow and patient care. Results showed that risk to patients seemed to increase when patient data were paper based.

In the final part of the study, participants were asked why they thought multifunction devices were not yet connected to the organisation’s IT network. The greatest factors hampering connectivity in the healthcare organisation relates back to procurement and technical issues. Much as staff may want new technology and see it as a means to reduce inefficiency and mitigate patient risk, there remains the barrier of getting the hardware and software and ensuring that it actually works ‘on the ground’.

THE IMPORTANCE OF ELECTRONIC RECORD MANAGEMENT (ERM)

In a widely cited paper, Richard Hillestad et al argued that adoption of electronic medical records by healthcare providers brings significant economic and efficiency savings, as well as dramatic safety benefits (Health Affairs, September 2009). This was certainly supported by the respondent data in the current report, as the vast majority of respondents (96%) in the study reported that ERM of patient information over the coming years will be 'Very Important' or 'Somewhat Important' (Figure 1).

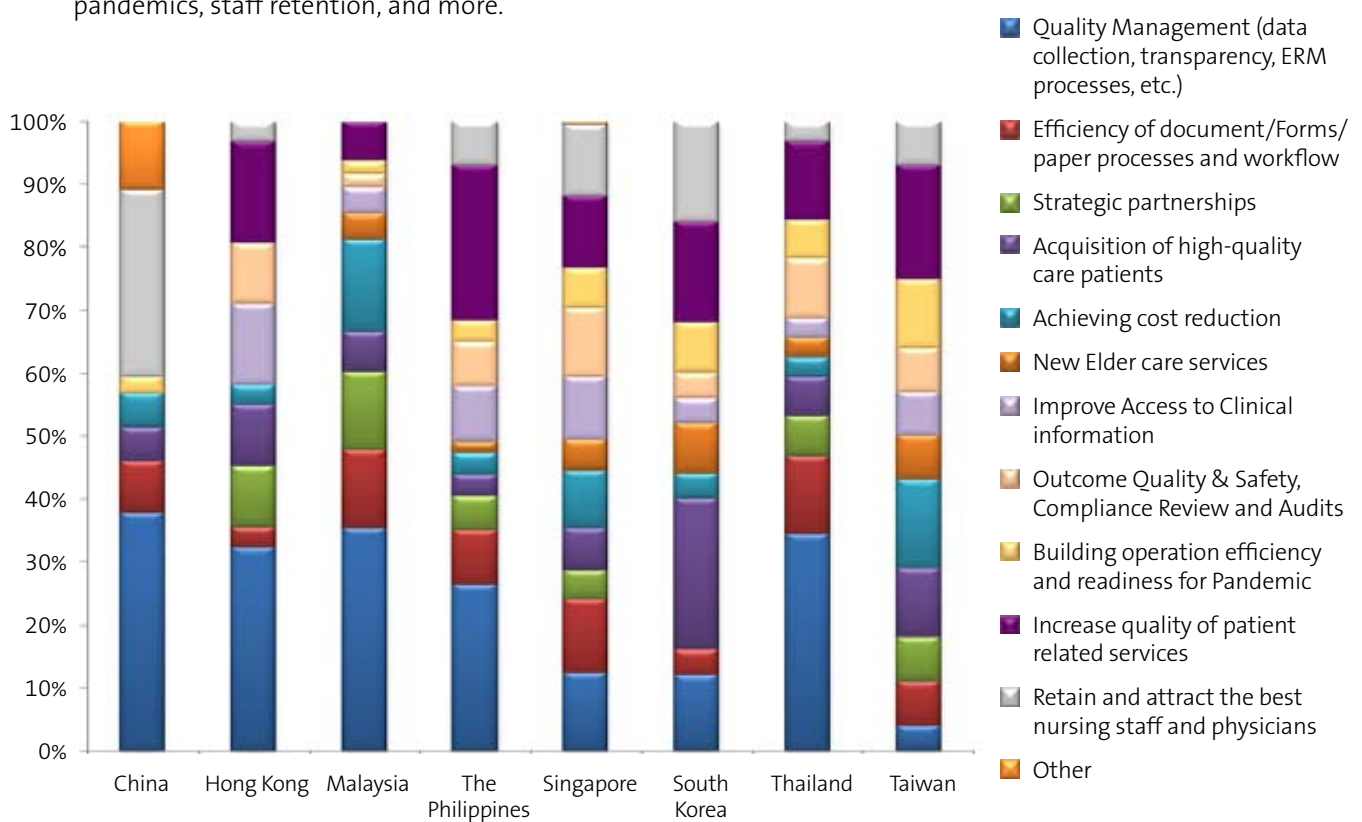
Of the surveyed countries, the research revealed that respondents from The Philippines felt that a solid ERM was most urgently needed.



► Figure 1 - Relative importance of ERM for the future (% of respondents by location).

LOOKING AHEAD – WHERE STRATEGIC PLANS ARE TAKING HEALTHCARE

Whereas the previous section asked what organisations had committed to over the next two years, this part of the study explored what healthcare organisations were aiming to achieve over the coming three years. In the former, investment areas were a measure of the tools or systems that were currently needed, and in this latter part the aim was to get a sense of what a target for the future may look like. From Figure 2 below, the areas respondents had to gauge included enhanced quality management, improving workflow efficiency, building strategic partnerships, improving access to information, improved elder-care services, compliance, preparing for pandemics, staff retention, and more.

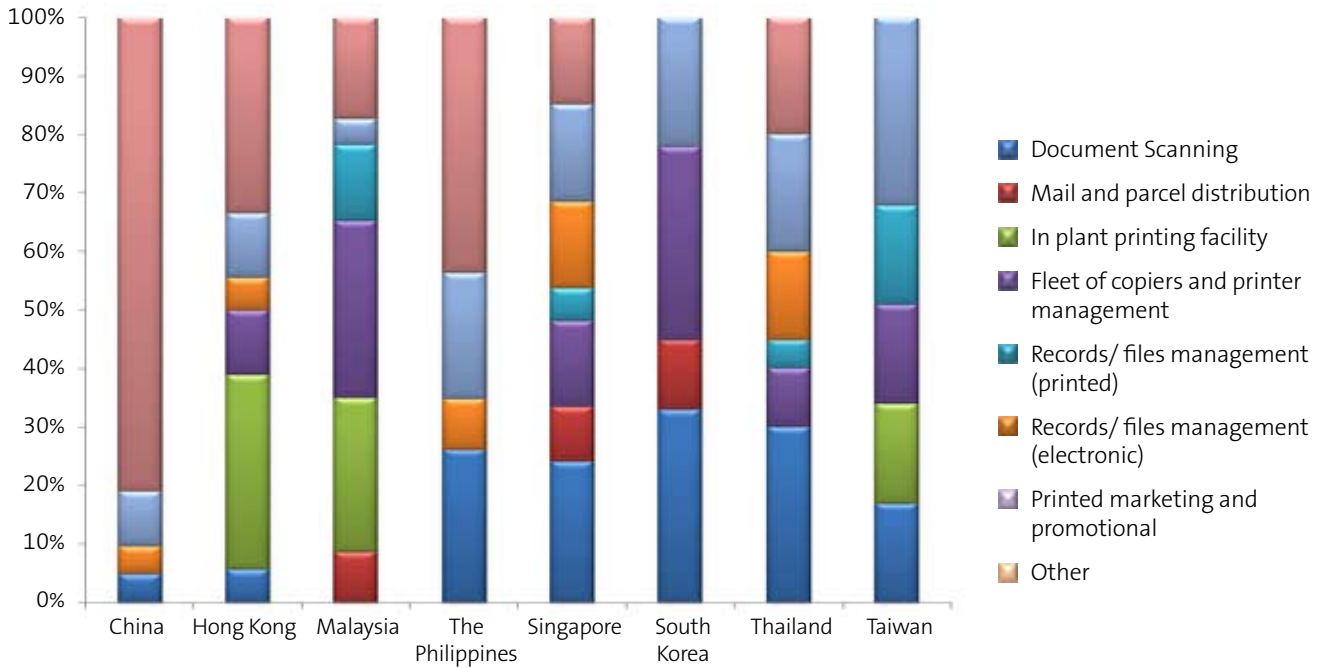


► Figure 2 – Areas of focus for a three-year strategic plan (% of respondents by location).

A review of the responses shows multiple trends, but the most significant one revealed a general consensus around Quality Management. This one area was felt as the most important strategic concern for the future. For all countries, except for South Korea and Taiwan, which ranked Acquisition of High-Quality Care Patients and Achieving Cost Reduction, respectively, higher, Improved Quality Management was ranked highest, with the Singaporean respondents showing the least pronounced concern. For the other countries, quality management around data collection, institutional transparency, improved ERM processes and the like were at least twice more important than any of the other areas. This is likely when one considers how the future promises to be even more data-dependant.

THE ROLE OF OUTSOURCING

For many hospitals and other healthcare organisations struggling to keep up with the waves of information, outsourcing to an outside vendor is often seen as the right solution, at least while the hospital finds its bearing. The financial advantages and incentives can be significant and critical, especially when the outsource agent can deliver or respond with timely, customised solutions. Figure 3 below details replies to the question of outsourcing in today's healthcare facilities.



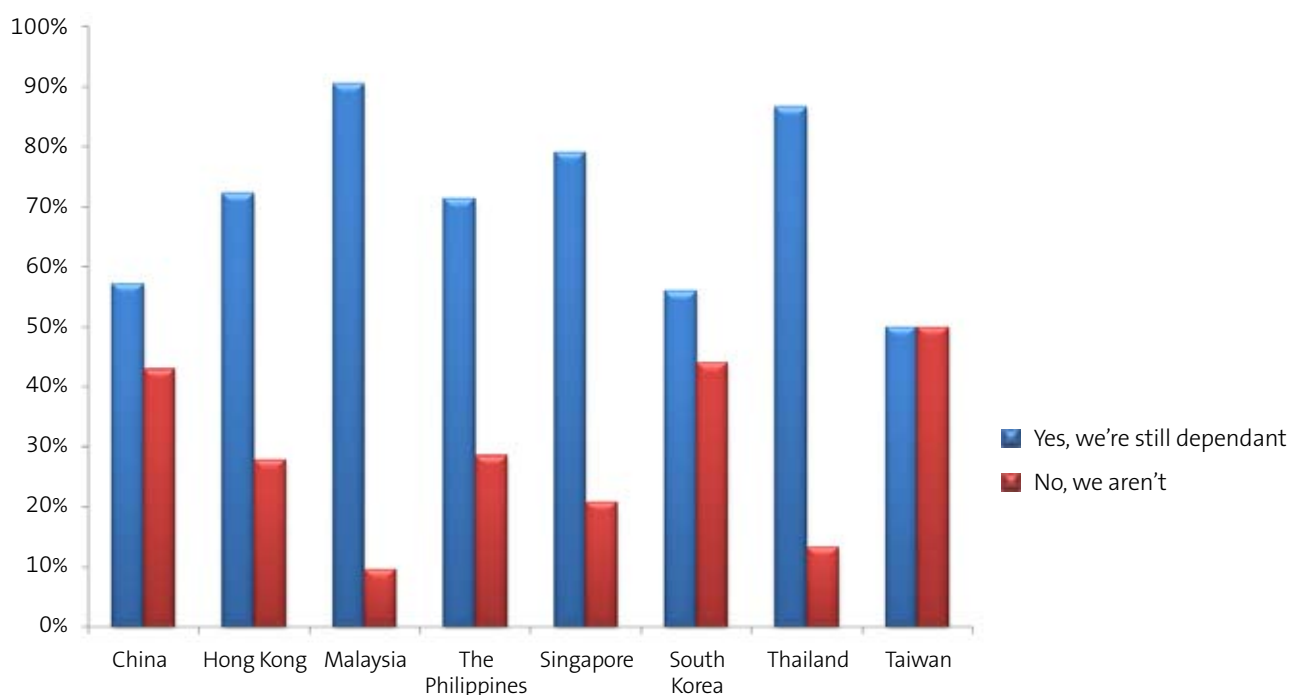
► *Figure 3 - Organisation's outsourcing behaviour (% of respondents by location).*

The results reveal an interesting correlation between the need for solutions and the degree to which an organisation will outsource to solve the challenges being faced by the organisation.

Respondents have clearly indicated the need for enhanced ERM, even the need for outsourcing in order to solve the problems they are facing in their daily workload, and yet the move towards outsourcing hasn't caught up. The demand may be strong but there is a lag in securing delivery.

FINDING THE PAPER TRAIL IN AN AGE OF INNOVATION

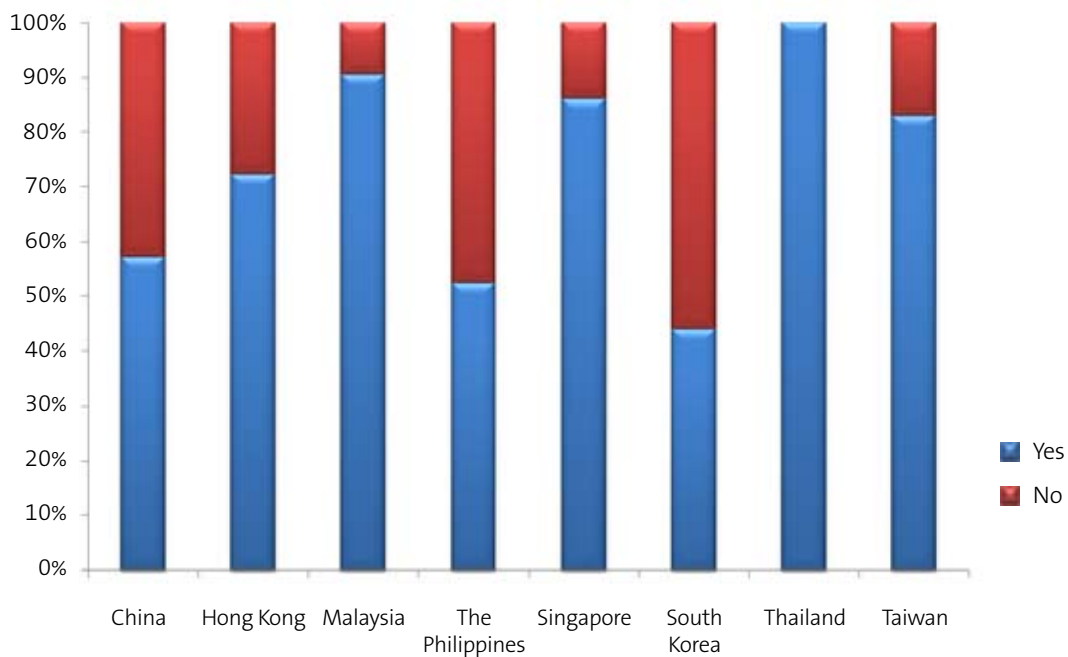
Whereas past technological innovations delivered better and faster means of paper and image reproduction, the current trend is leading towards paperless or digital technologies. In the previous sections, the study attempted to describe who decided what IT projects would be implemented, and what were the aims and the medium-term objectives. In the following section, illustrated in Figure 4, responses were taken to better understand what the current environment is in the healthcare organisations, especially in light of paper-based record keeping.



► Figure 4 – Indication of an organisations dependence on paper-based processes to manage internal workflow and patient care (% of respondents by location).

Clearly, hospitals and other such organisations are still heavily dependent on paper-based processes to manage workflow and patient care. Surprisingly, respondents from technologically advanced cultures like Hong Kong and Singapore were outperformed by respondents from The Philippines and Mainland China. That respondents from Mainland China, South Korea and Taiwan were about evenly split, as opposed to the other respondents, seems inconsistent with perceptions of lacking infrastructure (e.g. in Mainland China) or advanced healthcare (e.g. South Korea) and may deserve further investigation.

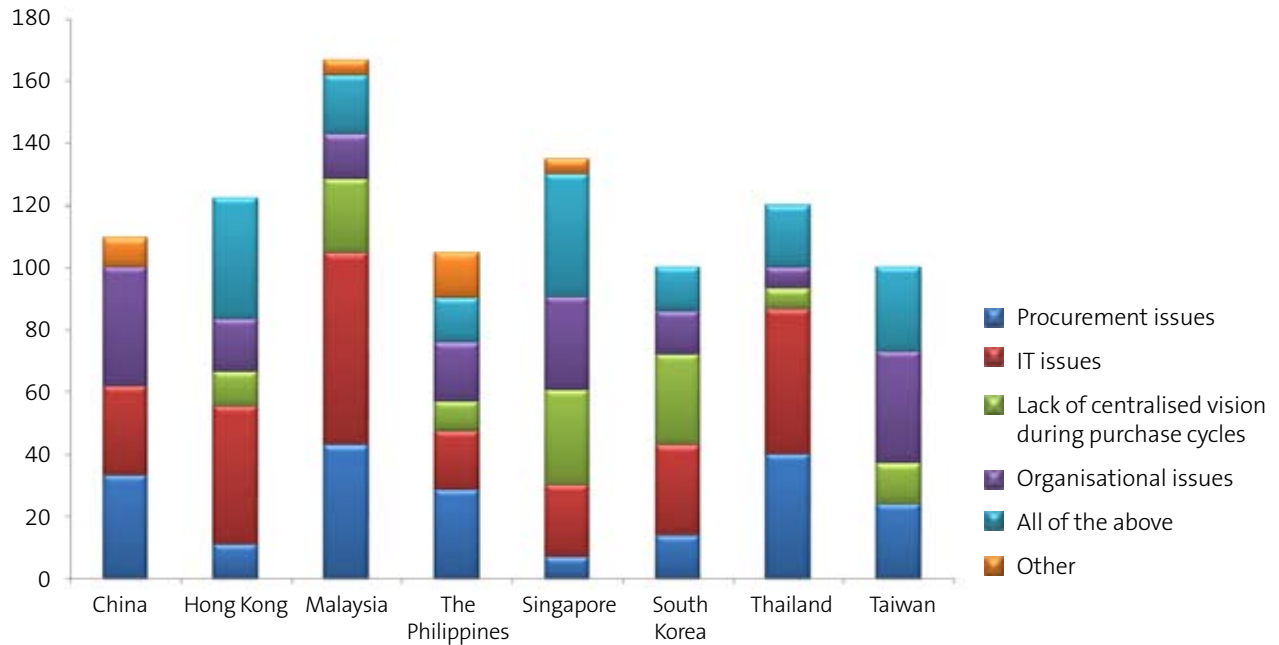
The follow-up question in the study was whether or not paper-based patient records were responsible for added errors or increasing risks to patients. Naturally, human error could also be involved when digital processes are used instead of paper-based ones, but many such IT innovations have been designed to reduce or remove the human-error factor. Figure 5 below illustrates responses to this question, recording the perceptions that human error play in record keeping and the relation it may have to increasing the risk to patients.



► *Figure 5 – Whether or not manual paperwork contributes errors and increases risks to patients (% of respondents by location).*

Getting Networked – Connectivity in Healthcare

In the final part of the study, participants were asked why they thought multifunction devices (MFDs) were not yet connected to the organisation’s IT network. By MFDs, researchers meant copiers, printers, scanners, email utilities, all linked to archives, data repositories and all-in-one information/IT solutions. Figure 6 below provides a percentage breakdown by location, showing which 4 or more reasons could be used to explain the lack of an MFD platform.



► Figure 6 - Why multifunction devices have not yet been connected to the network (respondents by location, multiple selections allowed).

From the respondent data, it would seem that the greatest factors hampering connectivity in the healthcare organisation relates back to procurement and technical issues. In many cases, simply getting the technology in house is the main barrier, and in many other cases departments must find solutions that will specifically help the organisation within its context. A review of the data suggests that much as staff may want new technology and see it as a means to reduce inefficiency and mitigate patient risk, there remains the barrier of getting the hardware and software and ensuring that it actually works ‘on the ground’.

CONCLUSION

Planning Ahead – Is Asia's Healthcare Sector Ready for the Future?

aimed at describing and capturing the fractured image of IT in healthcare in Asia, especially under the major changes that are anticipated to follow in the coming medium to long term. As healthcare costs and needs from a bigger, older and more discriminating population rise, so too will the challenges bloom for public and private healthcare organisations. Not only will physicians, nurses and support staff need to have the technical skills to serve their patients, but so too will the administrative and operational systems also need to work smoothly and efficiently.

- Healthcare professionals across the region and organisational hierarchy see ERM as a critically important area of concern, where new technologies and customised solutions to patient information must be adopted. Where some countries have adopted more comprehensive IT platforms, they are being used and valued. In countries where these networked ER M solutions have not yet been adopted, the need remains.
- Healthcare professionals from across the organisation in both private and public sectors recognise that outsourcing is one way of quickly adopting and launching solutions, but the need to have these solutions customised to the local context is crucial.
- Quality Management around data collection, institutional transparency and improved ERM processes was the most important strategic concern for the future.
- IT Departments play the greatest role in deciding how IT budgets will be spent for local decisions within an organisation, yet for greater implementation it is up to the Department Heads and the Executive office to set the vision. If organisations haven't yet scaled up to meet the challenge, it may be due to a lack of effective leadership or resistance to change, even if the benefits are clearly perceived.

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