White Paper

Change Management & HIS Implementation

A practical application of change management at MOH hospitals in Saudi Arabia

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Executive summary

This white paper provides an overview of several key change management approaches to be considered when implementing Health Information System (HIS) in hospitals. It also covers some of IQVIA's on-ground and real-life change management experiences, such as the implementation of HIS in 24 Ministry of Health (MOH) hospitals in three different regions in Saudi Arabia.

Effective change management is a key aspect of successful implementation of new change within an organization in any sector. When it comes to the **healthcare sector**, it is even more important to have effective change management, due to the sensitive aspects involved (i.e. ongoing patients flow, variable health statues, and privacy of patient information). This white paper provides an overview of several key change management approaches to be considered when implementing Health Information System (HIS) in hospitals. It also covers some of IQVIA's on-ground and real-life change management experiences, such as the implementation of HIS in **24 Ministry of Health (MOH) hospitals** in three different regions in Saudi Arabia.

The intention of this white paper is to have an insight on one of our change management experiences. It also demonstrates to the reader how tailored and successful change management requires a high level of expertise and caliber that has led to the successful implementation of the HIS project with a high adoption rate amongst end-users.

Introduction

Every project at its heart goes through and deals with change, and such change needs to be tracked, controlled and monitored. There is a need for a full understanding and realization of the complexity of the change that happens, and, in return, the required change management activities. Change management in this case will help advance the project from the current state to the **desired future state**, with a special focus on the people-side of change.

Change management and project management are two key functions required for a successful implementation of any new technology, new process, or any organizational change. Project management involves defining team and budget requirements, setting millstones and timeframes, planning, executing, and monitoring the project, alongside many other important activities. Since our focus in this white paper is on change management, we are not covering details on the project management concept. However, it is worth mentioning the activities that would fall under project management so the reader can differentiate between the two, and showcase how they correlate and depend on each other to achieve a successful implementation of a new change.

Change management runs through every industry and every project, especially for digital transformation projects. Technological advancement and adoption are increasing dramatically in all industries, including the healthcare sector. When it comes to the implementation of new technologies, it is evident that change management is required due to the impact that it brings along for the people involved in terms of the new ways of working that they need to adapt to. These changes are associated with the different ways of operation and business processes. Thus, to assure successful implementations of newly introduced systems, the three pillars, the '**People, Process and Technology** (PPT) Framework,' must be considered. The implementations of HIS in hospitals is a good example of the technological advancement in the healthcare sector and the associated challenges.

Figure 1: People, Process and Technology (PPT) Framework

People
(change management)

Technology
(solutions &
data analytics)

Process
(business process
management)
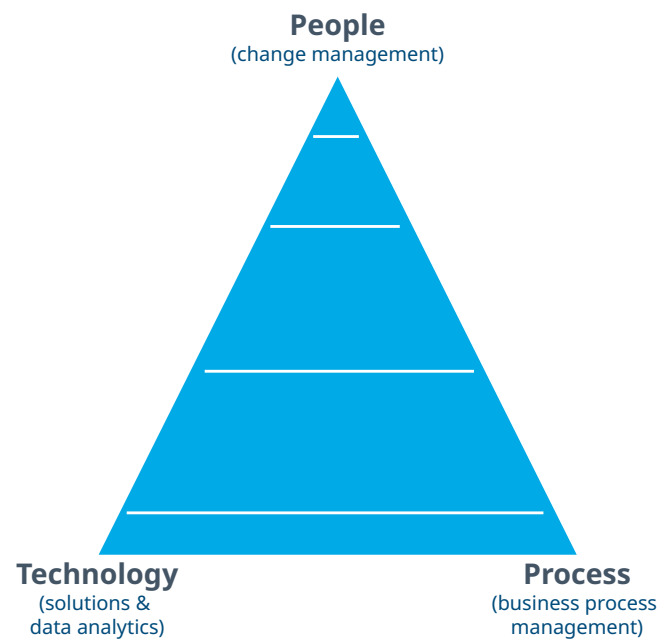
Because of the potential benefits of HIS, numerous healthcare organizations around the world have implemented HIS to manage health records electronically and to ultimately enhance, develop, and improve the process of healthcare delivery. While the uptake of HIS is increasing around the world, this uptake is usually accompanied with challenges and complications. These challenges happen due to the lack of a comprehensive and holistic approach for the adoption of HIS. A comprehensive and holistic approach requires the consideration of every aspect of the healthcare organization; technological, organizational, human, and cultural. Change management focuses on the two key aspects, human and cultural, that impact heavily on the other aspects of the healthcare organization.

There are several change management approaches to tackle the human and cultural aspects. Yet there is no 'one-size-fits-all' approach, especially in the healthcare sector, and approaches vary from one setting to another. Thus, at IQVIA, we use a hybrid 'best-of-breed' approach that combines key best practices of general change management approaches alongside tailored change management approaches for the health industry. This hybrid approach helps to address the
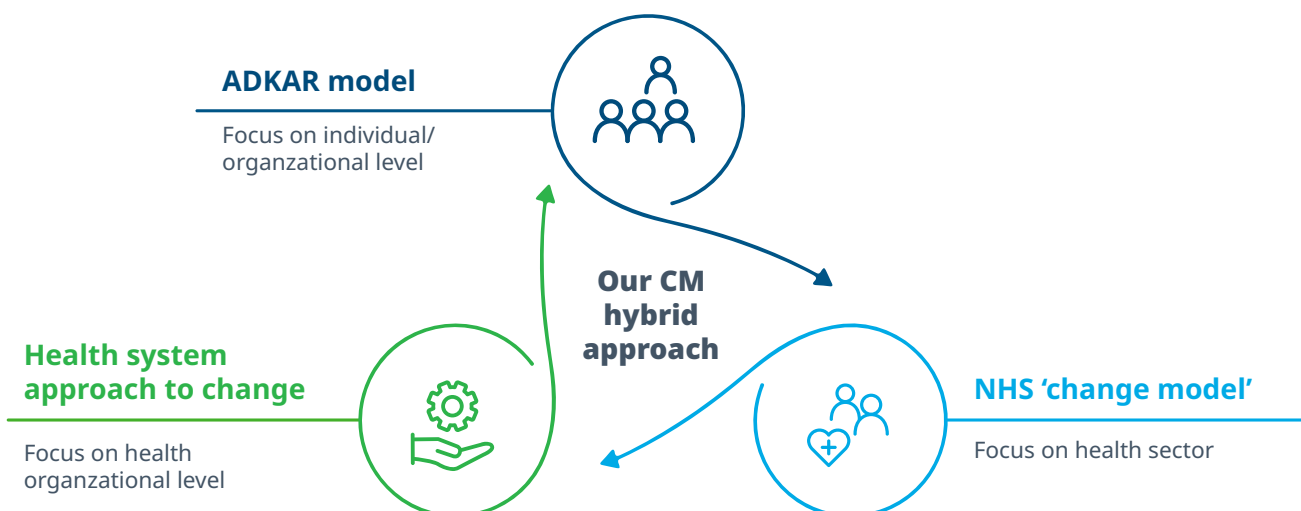
required comprehensive and holistic understanding of the interface between the new technology (i.e. HIS with the human behavior and cultural aspects of the implementation). The following sections provide i) an overview of the hybrid change management approach that is being used at IQVIA, ii) a real-life example of one of IQVIA's on-ground change management experiences with HIS implementation in Saudi Arabia, iii) and how our change management services helped in realizing the desired outcomes for the HIS implementation project.

IQVIA's hybrid change management approach

At IQVIA, we use a hybrid change management approach that combines different models to focus on individual and organizational levels in general as well as in the healthcare context. Our hybrid approach combines three models of the best practices, namely the ADKAR model, the NHS 'Change Model' and the Health System Approach to Change. The success of our hybrid approach is evident by our previous experiences in different projects delivered in the healthcare sector within the region.

Figure 2: IQVIA's Hybrid Change Management Approach

ADKAR model
Focus on individual/organzational level

Our CM hybrid approach

Health system approach to change
Focus on health organzational level

NHS 'change model'
Focus on health sector

1- ADKAR model

The ADKAR model is a very well-known and widely used framework developed by Prosci®. The five components of the ADKAR model, Awareness, Desire, Knowledge, Ability and Reinforcement, focus on the individual as well as the organizational level of the project. At the individual, level we focus on enabling and empowering individuals to adopt to change successfully. At the organizational level, we assist the project management team by providing the needed tools to support the people side of the change. This can be achieved via change management plans, gap assessment and root cause analysis of resistance and creating corrective actions to overcome any obstacles related to the people-side of the change. The effectiveness of the project management and change management teams can be at their highest level when such collaborations and integrations between them are conducted. Yet some organizations request change management involvement after challenges with the people side of the project had already begun. That is why it is highly recommended that change management involvement starts at the early stages of the project, which aligns with the Prosci® Change Management framework.

2- NHS 'change model'

The NHS 'Change Model' is a framework that is used by the National Health Service (NHS) in the United Kingdom for any transformational or sustainable change in the healthcare sector, in the interest of patients and the public. This NHS 'Change Model' was developed in 2012 by hundreds of senior experts and leaders, healthcare providers and professionals. Since its development, it has been constantly refreshed and enhanced. It encompasses eight components that cover all aspects that need to be considered to enable an effective, transformational, and sustainable change. These eight components are Our shared purpose, Spread and adoption, Improvement tools, Project and performance management, Measurement, System drivers, Motivate and mobilize and Leadership by all.

This NHS 'Change Model' can be used for any change, whether it is large, medium, or small in size. It could also be used within a small team, at a departmental

level, an organizational level, or even on an entire system. This model also helps in having an integral and interconnected approach for managing change. For all these valuable reasons, we at IQVIA combine the NHS 'Change Model' within our change management approach.

An example on how the NHS 'Change Model' is being applied in IQVIA's Change Management approach is that during the pre-implementation phase of a new system, we ensure that there is a rooted, internalized and shared purpose amongst the employees and we engage all stakeholders and are open to any feedback or suggestions. Additionally, we focus heavily on performance, measurement, and data analysis capabilities. Such focus assists in several aspects such as: tracking system adoption, ensuring that the captured transactions on the system are complete and accurate, and ensuring the quality of the data. This is also being achieved by setting the right Key Performance Indicators (KPIs) with a high-level framework that includes regular reporting of these KPIs and automation level and usage. Having this focus on adoption KPIs is a key aspect to consistently ensure the realization of the change management approach that is being applied, which will lead to a high adoption rate.

3- Health system approach to change

The Health System Approach to Change framework was developed to help the transition of formal teamwork into the military healthcare setting. The framework is the result of decades of research, learned lessons and healthcare providers feedback, all of which resulted in a well-developed strategy and framework with a team-driven evaluation-based approach in a health system. This framework focuses on three levels: the individual level, the leadership level, and the organizational level. For the individual level, the focus is on measuring the staff knowledge on the new change (pre-training assessment), supporting the training, motivating the staff, and post-training assessment to measure the staff awareness level and knowledge and to ensure efficient knowledge transfer has been conducted.

On the leadership level, the focus is on establishing the sense of urgency, developing collation, ensuring the availability and the application of effective communication process amongst all parties, and achieving short term team wins to maintain the momentum and motivation, among other important aspects. On the organizational level, the focus is on having a safe and harmonized culture that is built on trust and transparency. Such an approach for change can help improve patient outcomes by ensuring sufficient and appropriate training is in place, improving patients and staff satisfaction, and improving staff retention.

This 'Health System Approach to Change' framework is imbedded in IQVIA's Change Management approach by focusing on aspects such as conducting stakeholder analysis to assess different employees at different levels and investigate how the targeted approach was taken to address the transition. Some elements of the targeted approach include training evaluation and competency testing, ensuring the right criteria for the change agents selection are in place, proactively and continually investigating to identify any individuals who are resistant to the change, and identifying resistant departments.

Then, based on the findings from these investigations, appropriate change management activities are conducted to pay careful attention to their needs and requirements, resolve any arising issues, and deal directly with their concerns. The end-result of such activities is having users who are ready mentally to such change with high level of desire to adopt the new change or system with full efficiency and effectiveness. For all the aforementioned factors, 'Health System Approach to Change' is also combined within the approach that we use at IQVIA for our change management practice.

Now, after this overview on the used models for change management that are clearly the leading models and some of the best practices of change management, the next part of the paper will cover a real-life example for a recent change management service that IQVIA provided for a major project in Saudi Arabia.

A real-life example of one of IQVIA's practical implementation of change management at MOH hospitals in Saudi Arabia

The Saudi Ministry of Health (MOH) Health Sector Transformation Strategy under the Vision 2030 emphasizes the implementation of change management for its transformational programs, and it is a key enabler to deliver success.

The Saudi MOH is going through enormous change, especially in the digitalization of the healthcare delivery process. A recent MOH project in 2020 was to implement an HIS in 24 hospitals across different regions in collaboration with our clients/ collaborators.

The catalyst of a successful implementation and adoption of a new HIS relies on ensuring the availability of a **successful organizational culture**, which is part of the targeted transformational vision of the Saudi MOH. In addition, the aim for our change management involvement was to support the HIS implementation journey, sustain the change and ensure that the return on investment was achieved.

Our change management approach is a human-centric approach, that enables the people-side of the project to reach ultimate and successful adoption

Our involvement started by providing a change management plan that demonstrated the change management approach that we would apply to lead a successful adoption of the newly implemented HIS. The plan also included the list of change management activities that would be conducted and how these activities would align with the project management team in each phase of the implementation. The

change management plan also included other critical aspects of change management involvements, such as resource roles and responsibilities, communication plan, **resistance management** plan, and expected deliverables and outcomes. In addition, the plan explained the importance of focusing on the people side of the project, which is the core of the change management involvement.

Our Change Management team included the Change Management Lead who was responsible for leading the execution of the Change Management Plan, overseeing, coordinating, and tracking the Change Management activities, and ensuring full coordination and alignment with our clients/ collaborators. In addition, **our team included diverse expertise**: Consultants, Senior Consultants, Business Operations and Capabilities Analysts. The on-ground Change Management team members provided awareness sessions to Heads of Departments (HODs) and **Super-Users** (SUs). The awareness sessions empowered the personnel with the needed knowledge and mindset about the importance of HIS and ignited their support and involvement to be part of the successful implementation journey. An additional part of the pre-implementation phase was conducting focus groups

with SUs and **Change Agents** (CAs) to provide them with the needed tools and tactics to achieve their roles and responsibilities. Another role of the focus groups was to make sure that the SUs and CAs were the right fit for their roles, which was part of the pre-implementation phase. During the training phase, the Change Management Consultants oversaw the training sessions and identified user's resistance and overcame them. This was important to ensure user satisfaction of the new HIS and full utilization and adoption of the system are achieved when it goes live.

During the implementation phase, the on-ground Change Management consultants were aiding the **End-Users** (EUs), SUs, HODs and CAs and intervened when needed to resolve unforeseen issues or challenges. Furthermore, the Change Management Consultants were internalizing the culture within the hospitals and ensured the smooth transition from the current state "As is" to the future and desired state "To be", and the new work process is aligned with the agreed workflow from MOH.

For the post-go-live phase, the focus was on providing monitoring, reinforcement, and sustainability. This was achieved by continually monitoring adopted

Key Performance Indicators (KPIs) on a periodical base. Also, **recognition and celebration events** were conducted, and certificates of appreciation were provided to the SUs and CAs. Reinforcement meetings with SUs and HODs were also conducted to ensure their continued involvement with their EUs is sustained and no issues remain prevalent. It was evident from our engagement with SUs that the most active and involved SUs were the ones that were proactive, had deep ability of explaining and sharing knowledge and experience, were team players, had positive framing and mindset, and had a high level of social, communication and emotional intelligence. These observations were highlighted by our team and provided some empowering tools and tactics to reinforce their set of skills.

This is only a brief summary of what our change management team has conducted during the three phases of HIS implementation. Other vital aspects were covered, including: how realistic was our change management plan, have the risks, issues and areas of resistance been identified and resolved, and were deliverables and desired outcomes aligned with the planed milestones and the optimal use of our Change Management team and CAs. We also addressed areas of improvement and future recommendations and embedded and internalized a long-term, sustainable, and excellent culture that will maintain the adoption of the newly implemented HIS. This was greatly achieved by applying the Business Process Management methodology, Design Thinking principles and innovating for agile transformation and smooth adoption.

Value realization of our change management approach

Below are examples of how our previously mentioned Change Management approach has assisted in **realizing key aspects of the HIS implementation project**:

- Users in the hospital realized the importance of their responsibility of making the HIS project successful.

- Users knew why this change was happening and what was in it for them (WIIFM).

- Users precisely knew their roles and responsibilities, and what was expected from them.

- User were equipped with required knowledge and skills to adopt the new HIS.

- Users knew the risks attached with the implementation and how they can overcome them.

- Users knew how to use the HIS in the best way to realize its full value and capabilities.

Furthermore, the effectiveness of our Change Management approach was evident by anticipating highly resistant employees and departments, so more focus and support were provided to those targeted individuals. IQVIA's Change Management team was able to persuade resistant users to engage in the HIS implementation process and conduct tedious tasks, such as uploading inventory drugs list, CSSD instruments, Blood Bank and Laboratory tests in the system, despite of their high workload. These individuals, who were initially identified as resistant, were chosen to conduct those highly intensive tasks because we were able to internalize in their way of thinking the value of their contribution and that an individual success is the team's success.

Another good example of how we were able to realize the value of our change management approach was by increasing the EUs and SUs attendance percentage to a very high level and ensuring that the expected percentage of attendees was met, and, in many cases, the actual percentage reached higher than the expectations. Additionally, one of the major challenges that we successfully resolved was converting senior physicians to adopt the new HIS. It is very important to consider that every person reacts differently to change. It is also important to consider the common misconception that change is negative and challenging. These observations are evident and witnessed by our previous change management projects that we delivered, and they were reported by numerous Change Management researches and best practices.

Key learning lessons

- Change Management is not optional nor luxurious. It is rather a necessity to maximize the return on investment of the project and ensure optimal adoption of the new change.

- People-side issues are always present in any project and require early interventions.

- There is no one-size-fits-all approach for Change Management Plans. It is important to customize and tailor the plan to fulfil the requirements of each project.

- There is a need for adoption KPIs and metrics to measure and monitor the adoption of the new system or change.

- Change Agents play a key role in the execution of the Change Management Plan. Therefore, it is essential to empower them with the needed skills, knowledge, training and tools to effectively facilitate the change.

- In order to ensure full engagement on both individual and organizational levels, it is important to conduct stakeholder analysis, have the right selection criteria, and build a departmental support and involvement to minimize the likelihood of resistance and have full support from all departments.

- Business Process Management methodology and Design Thinking principles and innovations are very useful tools to facilitate the change and for a very agile and smooth transition.

- Recognizing and celebrating small wins will lead to very strong support and full engagement from the End-Users, Super-Users, and Change Agents.

- Change Management brought clarity, trust, and direction to the employees during the uncertainty and insecurity of COVID-19 and the technological change that they were going through during the HIS implementation.

- Change Management has helped make the HIS implementation process to be more agile, especially due to the COVID-19 pandemic, which accelerated the change with the health and safety measures that were in place, and the new required workflows.

Conclusion

Successful change is evidently achievable and possible. Yet, it is very common to experience resistance to change when a new system, technology or process is being implemented, not because of the change itself, but because of the lack of a holistic and systematic approach to manage and accomplish the change. Thus, we can see in the literature that there are several models that have been proposed and tested and proved their efficiency in order to guide the change process and achieve the ultimate success of a project.

What we do in IQVIA is use a combination of three of the best practices of Change Management models, and the ones that have focus on the healthcare sector, to increase the success level of our practice and reach an optimal value realization of our approach.

To conclude, whenever applying change management for any project, it is vital to realize that, while the new change taking place in the project will help solve a problem within the organization and make improvements, further problems and challenges may arise, especially from the people-side of the change process. This is where the change management approach should focus on. Each project should have a defined and tailored change management plan to handle the change from the early stages, which will assist in ensuring that the project scope, efforts, costs, people behaviour, timeframe and quality are all under control and monitored efficiently and effectively.

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