

*Healthcare and Project Management*¹

Knowledge Management in Healthcare Projects²

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Abstract

We live in the age of knowledge. Knowledge workers are the critical resource, armed with tools to create, access, apply, and transfer knowledge as crucial success factors. However, a critical impediment to the goal of healthcare is the need for sufficient knowledge to perform activities of the healthcare value chain. Therefore, it's essential to break down knowledge silos to allow a free flow of knowledge for consumption.

Knowledge transfer in healthcare refers to sharing and disseminating information, skills, and expertise among healthcare professionals, researchers, and stakeholders to improve patient care and outcomes. It involves the exchange of best practices, evidence-based interventions, and research findings to enhance the quality, safety, and efficiency of healthcare delivery.

This paper discusses various knowledge forms and knowledge-sharing methods within the healthcare system. The article also discusses impediments to knowledge transfer and ways to facilitate knowledge exchange.

Key terms: Knowledge Management (KM); knowledge transfer; lessons learned; communication; Artificial Intelligence (AI)

Mary*: Hello, doctor. Good morning. How are you today?

Author: Good morning, Mary. I am fine. Thank you! Over the past few months, we have covered many topics ranging from a generic industry perspective, the universe of projects, ethics in healthcare, patient care as a project, project management methodologies used in healthcare projects, shortages in healthcare, team management principles, etc. As discussed in global healthcare project management¹, knowledge management is another critical topic. We also wanted to cover feedback management in healthcare projects. Let's discuss that today.

¹ Editor's note: This series of articles about project management in healthcare is by Dr. Deepa Bhide, a practicing pediatrician with additional experience in information technology and project management. She has recently experienced healthcare from a patient's perspective while recovering from a broken ankle. In this series, Dr. Bhide reflects on programs, projects and project management in all aspects of healthcare from industry, provider and human patient perspectives. Learn more about Dr. Bhide in her author profile at the end of this article.

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Mary: That's a great idea. It will complete the vital pieces of this healthcare and project management puzzle.

Author: Knowledge management (KM) is vital in healthcare. What do you think?

Mary: Yes. As in all other industries, KM plays a pivotal role in healthcare. The sector is litigation-prone, compliance-obsessed, and collaboration-dependent, so KM is even more key to healthcare. I know that structured, standardized documentation of the policies and protocols and clinical documentation related to patient care helps avoid medical malpractice. Healthcare professionals collaborate through patient-related documentation to discuss specific diagnostic or therapeutic modalities. More importantly, KM is a lifeline for healthcare professionals, and in need of support, they can reach out to the knowledge base for clinical insights.

Author: You are right. Let's look at a few instances of KM.

Here's an exciting story² from Nightingale Hospital, UK, during the Coronavirus pandemic. In a time of uncertainty in medical decision-making, insights from front-line staff were critical to gaining knowledge about the virus and its impacts. The healthcare workforce depended on limited data and the expert advice of colleagues worldwide who cared for COVID-19 patients. In the face of a lack of clinical leadership, doctors were reaching out for advice from evidence-based strategies, high-impact medical journals and academic institutions, and more informal networks to get the information and support they need, which can include notes from fellow workers. One such system, the "Bedside Learning Coordinator System" (BLC), was trialed at the Nightingale Hospital London. Using a semi-structured form, BLCs captured insights and observations from the staff about what was and was not working well. As a result, the team of Nightingale Hospital came together to update a treatment algorithm for COVID-19 based on the latest evidence of treatment practices from those who delivered patient care. This system based on agile and adaptive developmental approaches was an excellent example of knowledge creation. It exemplified nano-agility in KM to tide over the crisis and work as a life-saving measure for the patients suffering from the Coronavirus.

Let's look at another example. The global effort to eradicate Poliomyelitis (a form of acute flaccid paralysis of limbs) was the most significant public health initiative before the onset of COVID-19. Billions of doses of polio vaccine (oral and injectable) have been delivered to children worldwide to eradicate wild poliovirus (WPV) from around the globe. Collaborating with seven academic and research country partners, researchers from the Johns Hopkins Bloomberg School of Public Health have captured the lessons learned from the Global Polio Eradication Initiative (GPEI) in a project called Synthesis and Translation of Research and Innovations from Polio Eradication (STRIFE)³. A successful eradication program requires globalization and connectedness across multiple groups of stakeholders and cooperation at international, national, and local levels. These challenges exist in any global disease (e.g., Coronavirus, Ebola, SARS). GPEI provided

lessons learned to strategize and execute activities to achieve global health objectives and address public healthcare challenges. The efficient capture and dissipation of lessons learned program have yielded multiple benefits, such as procurement of vaccines and other commodities for polio surveillance, strengthening of primary healthcare, creation of a supportive healthcare infrastructure and delivery, mechanism for dealing with public health emergencies, and training for field staff on vaccination. It has also rendered benefits such as building trust and social support among remote populations and collaboration among diverse stakeholders. To know more, I'd like you to look at "Lessons Learned from the Global Polio Eradication Initiative (GPEI)⁴."

Along the same lines, I would like to quote another scenario. To contain the spread of COVID-19, numerous worldwide public health measures such as "lockdowns," stringent sanitation measures, laboratory testing, using masks, social distancing, etc., were undertaken. However, vaccines offer the most effective means of containing the pandemic. As per the World Health Organization's (WHO) COVID-19 vaccine tracker and landscape⁵, in 2023, nearly 180 vaccines are in clinical development, and 199 are in clinical development. This extremely high number of projects initiated for vaccine development demonstrates the urgent need for vaccine rollout. The COVID-19 vaccination project has been prioritized by global, regional, and national bodies comprising academia, the pharmaceutical industry, academia, political agencies, and regulatory agencies. Imagine the deluge of knowledge that must have been created, documented, and exchanged/transferred to make this project a reality.

Mary: It looks like COVID-19 has accelerated the creation and dispersion of knowledge, triggering many KM projects worldwide. But how about KM in medical schools? Aren't medical schools the seat of KM for healthcare?

Author: Well, yes and no. Yes, as KM gets initiated formally in medical schools. No, as KM continues beyond medical schools. Traditionally, with a minor variation regionally, a structured curriculum of subjects of medical and surgical specialties is covered as a part of medical school training of 4 years, followed by a rotating internship as practical training. The graduate training is followed by specialty training of 2 to 3 years in a specific specialty, for example, general surgery, pediatrics, mental health, etc. The newly qualified physicians are thus prepared to start their clinical practice as clinicians. The changing role of physicians in the contemporary world necessitates that they have problem-solving and strategic decision-making abilities to deliver professional and organizational goals. Therefore, healthcare professionals must possess the following technical and medical skills.

- Supporting skills such as IT tech-savviness, data analysis and interpretation, training, and mentoring (teaching colleagues/students), paperwork such as keeping medical records, use of evidence-based medicine in practice, patient safety, ethics, legal issues, dealing with emergencies and so on

- Interpersonal skills include communication, collaboration, teamwork, leadership, emotional intelligence, and self-awareness. In keeping with the nuances of the healthcare industry, the healthcare professional must also be prepared to build trust with colleagues and patients, cope with uncertainty and time management, and health/stress management. In my experience, while healthcare professionals understand what project management means, formal training in project management will be helpful.

While medical schools prepare the trainees for technical, medical knowledge to ensure a complete preparedness of the new graduates for independent clinical practice, the current curriculum in many medical schools needs to understand these additional skills that are as important as medical skills. In addition, medical curricula must be relooked at to integrate support, project management, and interpersonal skills to deal with current and upcoming changes.

Mary: These are very interesting scenarios, and I agree with you. How about KM related to the technological advances in healthcare? Is technology obviating the need for KM?

Author: Good question! The IT and the digital revolution have gripped industries worldwide. Healthcare is no different. Electronic Medical Records (EMRs), mobile health (mHealth), Artificial Intelligence-enabled population/patient data analytics, digital security and privacy solutions, telemedicine solutions, various applications to support patient care processes, and more have invaded the healthcare landscape. Evidence-based medical reference databases (e.g., PubMed, Medline Plus, and more) form the anchor of healthcare professionals, supporting them at the point-of-care requirements and their professional development. Healthcare professionals must know and use these technologies from a knowledge management perspective for better patient outcomes. Open AI-based ChatGPT, a Large Language Model (LLM), is a new entrant in this field, promising activities such as clinical documentation, patient education, creation of clinical references, acting as a medical chatbot, and so on. Well, I know some failures of new technologies that were proclaimed moonshots but needed more due diligence.

Mary: These are informative situations of building, exchanging, and utilizing knowledge across different segments, stakeholders, and concerns in healthcare. What are the forms of expertise in healthcare?

Author: Absolutely. Let's look at a few forms of knowledge specific to healthcare. Forms of knowledge in healthcare can be looked at from various perspectives. Here are a few examples. In most cases, there is robust technology support for these.

1. **Knowledge Classification:** A systematic organization of knowledge bases is needed to ensure efficient utilization and implementation and systematized Nomenclature of Medicine Clinical Terms (SNOMED CT), a common global terminology for clinical terms, International Classification of Diseases (ICD-10), a coding system for medical diagnoses, Logical Observation Identifiers Names and

Codes (LOINC), a way of documenting health measurements, observations for laboratory tests, National Drug Code (NDC) Food and Drug Administration's identifier for drugs, etc. These are ontologies of healthcare datasets with concepts and relationships between them.

2. **Knowledge Representation:** Reference databases in clinical pathways (e.g., Map of Medicine, ClinicalPath, Care Pathways, etc.) provide clinical and administrative guidance to the healthcare professions to optimize and manage patient care.
3. **Knowledge Transfer:** leveraging social media, opportunities for academic conferences, medical school alums knowledge-sharing meetups, knowledge harnessing workshops, mentoring (medical fellowships), communities of practice (noninstitutionalized hubs between experts), job rotation (e.g., rotating internships for physicians to gain knowledge in all specialties) and similar are some channels for knowledge transfer.
4. **Knowledge Application:** ultimately, positive patient outcomes can only be realized by successfully applying available medical information. Case studies covering the length and breadth of clinical diagnoses are available in leading medical journals such as the British Medical Journal (BMJ), Journal of American Medical Association (JAMA), The Lancet, New England Journal of Medicine (NEJM), and so on. These databases offer practical tips for the healthcare professional to apply their knowledge.
5. **Knowledge Analysis** refers to statistical correlations based on research to understand the percolation, absorption, and application of imparted or imbibed knowledge. Knowledge transfer can help decrease the number of preventable medical errors. Quality indicators given by agencies, such as the Joint Commission International (JCI) Standards for Healthcare Quality and Performance, the Agency for Healthcare Research and Quality (ARHQ) in the US, the National Accreditation Board of Hospitals and Healthcare Providers (NABH) in India is a framework for quality assurance and quality improvement for hospitals.

I also look at KM or knowledge transfer/exchange (KT/E) in the following aspects. There are innumerable examples, even in the healthcare industry, of each one of these aspects. I am quoting one or two per aspect. Here are a few examples based on the information described earlier in the article.

1. Speed of knowledge transfer: e.g., "Bedside Learning Coordinator."
2. Type of knowledge transfer: e.g., The Global Polio Eradication Initiative project, medical school education, etc.

3. Stakeholders of knowledge transfer: e.g., the COVID-19 vaccine project signifying underlying collaboration between stakeholders
4. The technology used for knowledge transfer: e.g., mind mapping or diagramming tools to share knowledge, ChatGPT and other AI-based tools, natural language processing (NLP), machine learning (ML), self-service portals, knowledge bases, etc.

In the earlier conversation, we discussed taking up feedback management and how it differs in healthcare settings. Here are a few examples.

1. The critical nature of the work and the high stakes involved in the healthcare industry create a unique situation.
2. Healthcare project teams deal with life-and-death situations and emotionally charged environments; hence, feedback needs to be given with the proper emotional sensitivity.
3. An increased need for continuous learning and professional development.
4. Feedback that supports the needs of an interdisciplinary and multi-skilled team.
5. An industry that heavily relies on evidence-based medicine principles, data-driven insights, and research.

The feedback in healthcare projects needs to be constructive, supportive, and empathetic, acknowledging the stress and pressure they might be under, focused on patient well-being (the core objective), clarity in communication, respecting the privacy of the team members and patient, ethical considerations and most importantly a “feed-forward” for continual learning.

Mary: That’s so cool. I wasn’t aware of these unique attributes for feedback in healthcare projects. Thank you for sharing the same.

Looks like there is so much organized work done already. What is the biggest impediment to knowledge management in the healthcare industry?

Author: You are right. As in other industries, healthcare is buzzing with information of all sizes and shapes. The age of Information Technology simplified all steps of this value chain. Yet, for the most part, clinical knowledge remains in silos. By far, the hierarchical culture of healthcare organizations is the biggest impediment to free-flowing expertise within the organization. Many healthcare organizations or setups primarily operate as a hierarchical structure with a pyramidal form of leadership. I also think the critical nature of work and lack of sufficient time to devote to learning impede continual knowledge enrichment for medical professionals.

Mary: Information technology has enabled many activities in the knowledge management process. I see a significant role in conversational AI-based applications like ChatGPT or other KM and KT/E chatbots. What would be a future-looking role from a KM standpoint?

Author: That's a brilliant question. I agree that AI-based tools will automate knowledge activities and make jobs redundant in the knowledge industry. Some roles may become redundant with changes in technology, automation, or shifts in organizational priorities. However, the positions that become redundant will depend on the nature of the organization, the industry it operates in, and the current and future needs of the organization. As some routine tasks get automated, project teams may need to adapt their skills to remain relevant. Organizations must stay agile and adaptable to changing circumstances and continually assess their workforce to ensure they have the right people in the right roles to support their objectives.

Situation 1: AI-based mobile health applications, by their portability and accessibility, are the patient's choice for managing their health, especially chronic conditions that need constant monitoring. These applications range from personalized insulin injection calculators for patients with diabetes and dementia patients using AI-enabled devices to improve activities of daily living such as handwashing and attending to small chores without the need for a caregiver's assistance to self-management tools for chronic conditions. This indicates a growing recognition of the integration of AI in consumer health information and support and calls for increased research in this area.

Situation 2: With the opening of the internet in the early 1980s and social media sites following that, there are tons of publicly available medical images and knowledge bases on various medical specialties. One such open dataset is OpenPath, an open-source digital pathology platform designed to facilitate collaboration and advancement in Pathology. This is a rich source of information and can be harnessed for AI-based insights. For example, Pathology Language-Image Pre-training (PLIP), a foundation AI model, was trained on vast data and generated output like a Google for Pathology! It can read the images and text and help classify and catalog them. PLIP can help users search for similar cases using images or natural language, thus facilitating quick information, research, and knowledge sharing among the medical community.

Situation 3: "Generative AI provides a significant boost to knowledge workers, study finds (<https://www.legaldive.com/news/harvard-business-school-study-generative-ai-boston-consulting-group/693973/>)" – this Harvard Business School study conducted in collaboration with Boston Consulting Group (BCG), involved 758 consultants to assess their performance on complex tasks with and without AI assistance. The study found that AI helped improve the productivity (by 12.2%) of the consultants and the quality (by 40%) of their outcomes. An interesting finding of the study was that the skill level was a non-issue. The study provided valuable understanding of the capabilities of AI, beneficial vs. detrimental. It also gave a glimpse of how the knowledge workers engage with the AI tool – completely or partially.

Look at how things are moving in the knowledge field and the real-world implications of AI on knowledge work. These scenarios are just a few examples of how AI is foraying and intruding in our day-to-day work.

Mary: That's amazing and terrifying too! Isn't this automation creating a sense of fear amongst the knowledge workers and all others about losing jobs?

Author: Well, I agree that AI models can handle some tasks efficiently, easing the load on knowledge workers. However, complex problem-solving, strategy, and innovation skills cannot be automated and require people to perform them at even greater complexity. In addition, people must increase their emotional intelligence, empathy, and interpersonal skills to succeed. Therefore, the Knowledge Office or Knowledge Manager role will be essential in KM – a critical organizational asset. A Knowledge Manager will be responsible for developing and implementing strategies for managing and sharing knowledge within an organization. Other than the activities such as knowledge capture, transfer and sharing, training, and reporting, this role will be responsible for developing information architecture, continuously assessing and improving knowledge management for continuous improvement, and ensuring that the organization's knowledge management practices comply with legal and regulatory requirements, such as data privacy laws.

Mary: I am keen to know how knowledge is shared between the healthcare workforce in a hospital setting. Also, the digital revolution in healthcare and KM is speeding up. How does knowledge sharing happen to keep oneself abreast of the latest technologies? The generated ocean of knowledge does not necessarily translate into improved patient care.

Author: I agree with you. That's one of the biggest impediments to knowledge sharing in healthcare. In healthcare, knowledge is gained primarily through treating patients. Each patient care setting is a unique project. The lessons learned and best practices form the knowledge base within this individual. The knowledge can be expressed as explicit (readily available and in a shareable form) or remain tacit (personal and subjective, made with cognitive mapping, experience collection, and practical skills). Tacit knowledge depends on human-human interaction to be transferred. However, given the experience that healthcare workers gather while treating patients, these insights also need to be documented and shared with appropriate groups. Teaching activities such as clinical training on the job (ward rounds with senior clinical faculty), teaching projects, creating references for point of care support, use of information and communication technology to dissipate knowledge, calling for formal (for example, morbidity meetings) or informal meetups to discuss interesting clinical cases are some knowledge sharing practices and activities in a healthcare setting such as a hospital or a primary healthcare center. Planning and providing continual feedback, clinical audits, and developing clinical risk registers are other supporting activities that must be included in the universe. The healthcare settings must obtain PMO support from the international, national, and state health regulatory bodies.

The need to know and use new technologies has moved from good-to-have to must-have. That said, hospitals and other healthcare settings are now integrating the training of these technologies and applications into the boot camp for their workforce. Also, in collaboration with the clinical departments, the IT and healthcare professionals are now

engaging in training workshops to ensure they are kept abreast of the latest technologies and have continual learning.

I have recently encountered an exciting application called Complementarity-Driven Deferral to Clinical Workflow (CoDoC) tool by Google DeepMind (<https://www.deepmind.com/blog/codoc-developing-reliable-ai-tools-for-healthcare>): This AI model harnesses human and AI collaboration and integrates a human, such as a clinician, in the patient's decision-making process, deferring the decision to a clinician. It will be an interesting read for you.

Mary: Do you have a real-life example of knowledge work for any healthcare setting?

Author: I recently consulted for a large multi-specialty hospital setup, having multiple facilities across the state. The healthcare workforce comprised 700 physicians, non-clinical workers, and other supporting staff involved in the patient care process. The task was to set up a learning and development (L&D) process. We planned to leverage the newly acquired Learning Management System (LMS) to enhance the staff skills, facilitate knowledge sharing, improve patient care, and drive organizational excellence. The project scope included learning needs assessment (LNA), deploying LMS and training the staff, developing content, designing curriculum, creating personalized learning plans for staff members, and analytics and reporting performance evaluation metrics. The project was completed in the given time and budget, and I am told the outcomes are positive. Content development, design, and learning plans formed the bulk of the project. We used the hospital's database engineers to classify the datasets and prepare them to be integrated into the LMS. Besides the hospital leadership, the LMS team, and staff representatives, we appointed an L&D manager to oversee the project and design the subsequent steps for continual learning. Both the clinical and non-clinical teams were very engaged in the project. They helped us in creating/reviewing training materials, including e-learning modules, case studies, and practical simulations. Their expertise ensured the accuracy and clinical relevance of the content. They also participated in actual training delivery, adding their hands-on and valuable experiences while facilitating the courses. The clinical staff served as mentors for less experienced and non-clinical staff, providing guidance and support for skill development, clinical decision-making, and best practices in patient care. Bringing that clinical flavor was critical to ensure the correct type of training was imparted. It was an interesting project and an excellent opportunity to work with a knowledge team.

Mary: Did you use AI-enabled applications in the project? What about the challenges of this project?

Author: Not yet. We plan to use Machine Learning (ML) and other AI capabilities to bring personalization to the LMS-based training. I have heard that the algorithms can access the user data for the user's past performance, combine it with the current performance, and predict learning status. Besides budget constraints and the other customary challenges for any other project, we see a lack of user engagement and ability for change

management as significant risks to the project. We plan to engage a change champion (a staff member from a clinical group) to help us manage the risks.

Mary: What, in your opinion, are some critical competencies for healthcare professionals who would like to work on AI? AI is becoming ubiquitous, and I guess they don't have an option but to learn these competencies to work with AI vendors, data scientists, and other professionals.

Author: According to this research titled "Competencies for the Use of Artificial Intelligence–Based Tools by Health care Professionals"⁶ by Russell et al., basic knowledge of AI, social and ethical implications of AI, workflow analysis of the AI-based tools, AI-enhanced clinical encounters, and evidence-based evaluation of AI tools. I would add knowledge of the project management framework to this list.

Mary: That makes sense. I note that the pharmaceutical and healthcare industries have comprehensive clinical documentation. There is a deluge of documentation that is sometimes difficult to retrieve. There are also standard methodologies/processes for such complete catalogs of documentation. Especially in a patient care process, the documentation is initiated from the first contact with the physician or a nurse. This documentation is available to all the stakeholders during their care process. Access to clinical documentation is regulated. How does all this play a role in knowledge management?

Author: That's a good question. Patient-related clinical documentation (CD) is a vital piece of knowledge for the healthcare industry. It's a digital or analog record of the patient's care process, detailing treatment options, medications, laboratory tests, and more, forming longitudinal patient records/Electronic Health Records (EHRs). CD can be looked at as patient-related knowledge and has many benefits. For example, CD includes the basis for personalized medications, feeds the revenue cycle management process and evidence-based medical treatment protocols, supports inter-provider communication, forms evidence for legal records, and helps create patient care registries in the public health domain. I am unsure if you have heard of "Learning Health Systems (LHS)." The Agency for Healthcare Research and Quality (ARHQ)⁷ defines LHS as "a health system in which internal data and experience are systematically integrated with external evidence, and that knowledge is put into practice. As a result, patients get higher quality, safer, more efficient care, and healthcare delivery organizations become better places to work." This concept is based on data practical experience that generates evidence-based insights to improve care. Learning Health System enablement requires commitment from the workforce for continual learning.

Mary: That's insightful. I see how the data, practice, and culture are so interconnected. The volume of such knowledge only keeps increasing with each patient visit. Do healthcare providers have the means to get to what they need to see for timely care? Are healthcare providers trained to use this knowledge?

Author: The thrust of healthcare professionals is not to create an abundance of this knowledge but to implement it to deliver the best care to the patient with the available information. I agree with you that voluminous documentation can delay the initiation of care. Technology helps here. Pieces of information that are critical to the patient are easily retrievable, and that ensures timely care.

Healthcare professionals in most hospitals and settings are trained to use digital knowledge systems and knowledge bases.

Mary: Do you think the hospitals will benefit from the knowledge of PM practices? If yes, how can we increase knowledge transfer of PM practices to hospitals and other areas of healthcare? How do you see project management integration in the knowledge management process in healthcare?

Author: Undoubtedly. Project management is a discipline and should be ubiquitous. I don't see a particular need. That said, knowledge management in any form, as we have listed earlier, including the CD process, should be considered a project. Project management of knowledge management involves applying project management principles and practices to implement and maintain knowledge management initiatives within an organization. KM benefits from project management practices. Fragmented and siloed knowledge reflects the healthcare industry's complex, multi-level, multi-professional, and multi-segment nature.

In the case of knowledge management, it will be good to talk about the various developmental approaches, such as predictive, hybrid, and adaptive approaches, which are often viewed as a spectrum.

The predictive approach is used when there are specific requirements with clarity in scope, schedule, cost, etc., at the beginning of the project. On the other end, the adaptive approach is practical when a high degree of uncertainty prevails and there is a need for frequent changes in the deliverables based on stakeholder feedback. An agile approach is often an adaptive approach. A hybrid approach is a combination of a predictive and adaptive approach. This approach is helpful when the deliverables can be modularized. The incremental approach (a part of the hybrid approach) is when the deliverable is produced throughout the process with a series of iterations.

Knowledge management follows a hybrid approach, creating knowledge in all forms we discussed over iterative cycles.

Mary: I agree. The more we see PM as a separate process, the less we integrate it with mainstream activities.

Knowledge management transcends beyond just documentation. As we discussed, it encompasses workflow management, behavioral change, people management, collaborative culture, and technology advances. PM is the binding factor that sets the knowledge process in the discipline.

Author: Absolutely. I encourage you to look beyond simple transactional knowledge. Knowledge sharing is as important as the knowledge itself. Having diverse, integrated learning is a must-have for a project manager.

Mary: Thank you for this yet another enriching conversation. I am curious to know our topic for our next meetup.

Author: Let me think through this. Thank you, Mary. Have a great week ahead.

Conclusion

Knowledge management is the backbone of any organization, enabling the sharing, storage, and retrieval of critical information. Knowledge management in the healthcare industry refers to identifying, creating, sharing, applying, transferring, and managing knowledge and information. Knowledge management aims to improve the quality of care, patient outcomes, and operational efficiency through better decision-making, innovation, and continuous learning. Knowledge management practices are essential to creating a learning culture in the healthcare system that continuously improves patient care and outcomes. In addition, knowledge management as a project is vital to ensuring that knowledge is effectively managed and shared within an organization, leading to better decision-making, improved performance, and increased innovation. In the world of AI, knowledge management is even more essential to train the models for accuracy and trust building.

By implementing effective knowledge management practices, healthcare organizations can foster collaboration, innovation, and continuous learning, leading to improved decision-making and positive patient outcomes.

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* - Name changed to protect privacy

Glossary

AI: Artificial Intelligence

ARHQ: Agency of Healthcare Research and Quality

BLC: Bedside Learning Coordinator System

CD: Clinical Documentation

CDC: Centers for Disease Control

EMR: Electronic Medical Record

GPEI: Global Polio Eradication Initiative

STRIPE: Synthesis and Translation of Research and Innovations from Polio Eradication

KM: Knowledge Management

LHS: Learning Health Systems

LLM: Large Language Model

LMS: Learning Management System

LNA: Learning Needs Assessment

ML: Machine Learning

PLIP: Pathology Language-Image Pre-training

PM: Project Management

PMBOK®: Project Management Body of Knowledge

PMI: Project Management Institute

UN: United Nations

WHO: World Health Organization

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About the Author



Dr. Deepa Bhide

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Dr. Deepa Bhide, MBBS, DCH, PMP, has over 20 years of professional experience where she has blended medical practice and research with IT and Project Management. She juggles consulting, training, and operations and is proficient in clinical medicine, project management, and healthcare information technology. Starting her career as a medical practitioner, she has worked with varied organizations before her current stint as director and clinical expert for Inventurus Knowledge Solutions.

Deepa's growing interest and work in these areas, born from her day-to-day patient interactions, helped her view Project Management as a backbone of progressive healthcare. Her paper on "Patient Care - A Project Management Perspective" has received global recognition and acclaim. With a physician background as a solid foundation to leverage IT/PM skills and knowledge, Deepa has blended her broad-based experience and learnings to present a unified, holistic, and wholesome view of Project Management and Healthcare, a cross-domain confluence. Through various webinars, events, talks, and writings across platforms, Deepa has been an evangelist in championing global project management during the COVID-19 pandemic.

A Gold medalist from Osmania University for standing First in the MBBS course, she pursued her DCH in Pediatrics and Child health. Deepa has served various roles in local and global Project Management Institute (PMI) regions. She remains actively engaged with PMI and has been a participant and speaker for various national and global meetings and online events.

Deepa lives in Hyderabad, India, and loves traveling, singing, and experimenting with global cuisine. She can be contacted at deepa.bhide@gmail.com.