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## *Healthcare and Project Management*<sup>1</sup>

# **Project Management Approaches in Healthcare**<sup>2</sup>

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### **Abstract**

The use of project management and the benefits of using a project management approach for the successful execution of projects are well known. However, there needs to be more clarity in selecting a project management approach for a specific project. According to the PMBOK® Guide – Seventh Edition, “Development approach is the means used to create or evolve product, service or result during the project life cycle.” Based on the increasing need for iteration, the development approach can be predictive (least iterative) to adaptive (most iterative) with a hybrid in the middle. In the context of this paper, the authors consider the predictive approach to essentially mimic a waterfall approach and the adaptive approach as agile.

This article discusses the selection, application, and benefits of management approaches for healthcare projects – most notably, ensuring quality-driven and timely patient care. It is beyond the scope of this article to discuss the details of each approach and debate if this differentiation between project approaches exists. A project is executed in a specific environment and context, such as a business problem it is supposed to solve. The project manager (PM) is responsible for selecting the most appropriate and available way to achieve the targets and results. A good PM will draw from various approaches, tools, and working methods and use project tailoring approaches to derive the best-fit approach to suit the project’s unique characteristics and context.

**Key terms:** Project Management approach, agile, waterfall, hybrid, PMO, project tailoring

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<sup>1</sup> 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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<sup>3</sup> Sunanda Gundavajhala was invited by Dr. Bhide to co-author this month’s series article in order to deepen the discussion of different project management approaches based on project type and context. Ms. Gundavajhala has 25+ years’ experience in project, process and operations management and is the author of multiple papers and books on related topics. See her profile at the end of this article.

Mary\*: Hello, doctor! I hope you are keeping well. I know it has been a few weeks since we talked. I have started working as an intern in a hospital administration department. Knowing my interest in healthcare, my close friend who works in the hospital suggested me this position. I had to go through a couple of rounds of interviews and was happy to know I was selected. I am excited about my role.

Author: Oh yes! I am well and hope you are too. I was wondering where you had disappeared! Congratulations on your new role! How was your onboarding?

Mary: Absolutely. I can now apply the learning from our discussions on healthcare project management. As part of the onboarding, I was introduced to different departments in the hospital. I wanted to discuss the selection and benefits of project management (PM) approaches for healthcare projects.

Author: Of course, Mary! I am glad you are excited to apply all our discussed concepts. Let us see what you have observed and what questions you have.

## **Introduction**

1. How will different project management approaches improve patient care?
2. What roles do stakeholders play in supporting these projects and their approaches?
3. How can I monitor if the project approach is on track?
4. What is project tailoring?

Prescribing one project management approach for all projects is as good as saying “one-size-fits-all.” It is equally impractical to say that each project needs a new management approach. Project managers need to understand the factors impacting the projects, the ecosystem of the projects such as (industry, geography, resource availability, geopolitical nuances, market landscape, etc.), and project complexity and only then dish out the right recipe to successfully deliver the project. When discussing different project management approaches such as waterfall, agile, or hybrid, one tends to conclude that these techniques are specifically for software development projects. That’s not true. Knowing and understanding these approaches’ underlying principles and philosophy is critical to their tailoring and application to projects in various industries, including healthcare.

Mary: Let me get started. We were taken to the hospital’s Emergency Department (ED) to observe its working. That was a wise step on our manager’s part, as it’s here that the patient care projects are initiated. The teams in ED were working at a breakneck speed. The team ground rules, protocols related to evidence-based medicine, and treatment methodologies in health emergencies were hung on the walls of the ED for ease of access and reference.

An ambulance had wheeled in a patient with lower limb trauma. One set of team members resuscitated the patient to stabilize his condition. Other team members were helping the medical teams with a health history and medical insurance details to get started on the logistics of hospital admission. We observed that about 4 to 5 tracks of patient care were initiated simultaneously. The team worked with utmost agility to ensure the care delivery was immediate, definitive, and apt for the patient's clinical severity. We noted the team interactions to ensure the patient was stable and prepared for early control surgery. I noted that the clinical staff, especially the treating hospitalist, collaborated with other teams from the hospital to ensure adequate preparedness to handle the situation at hand.

In the ED, the team's focus in the first round (iteration) was to bring the patient's vital parameters, such as blood pressure, pulse rate, respiratory rate, temperature, oxygen saturation, etc., to a manageable level. I also saw them get into a huddle/stand-up to know what was happening and what should be done next. The doctors and nursing staff observed the patient and his blood work to make quick actions/procedures. Their feedback (both clinical and blood work) was essential to determine the patient's next steps. The hybrid was the most common methodology used in the ED.

ED procedures must be driven by proven processes/principles and yet need to respond to the individual patient or IT systems that should not fail. The hospitalist was the facilitator of the agile methodology. Though focused on a narrow scope, his sphere of influence was broad. Other than having a high-level view of immediate care being delivered to the patient, he was seen helping teams with avoiding chokepoints to facilitate ease of movement for subsequent steps. I noted a culture of accountability. I also noted the step-wise processes involved in quality-check processes, compliance, and patient confidentiality processes, documenting patient data in the existing hospital information systems, and more.

I pondered on the project management approach the team had selected. At one end, I saw the agile play out, and the waterfall stayed steady at the other.

Author: Oh, it seems like you got to observe one of the core processes that define the healthcare industry – emergency care management of a patient.

Mary: Yes. As we moved from the ED, we were given a demo of processes related to other departments such as the Outpatient department (OPD), Inpatient service (IP), Nursing department, Rehabilitation medicine, Pharmacy, Radiology department, etc. Each one had unique processes and working methods.

We met their Chief Technology Officer (CTO) and spent time with the in-house Information Technology team. The CTO, a seasoned technocrat with a few decades of experience in Health Information Management Systems (HIMS), showed us a suite of applications their team was developing for hospital use. He quickly quipped, "We use agile to create and migrate these applications to the cloud. The requirements were well

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established in the face of strict regulatory requirements. So, we could move step by step across the “Software Development Life Cycle (SDLC),” we used the waterfall model to develop the HIMS project. We involved multiple stakeholders, from doctors, nurses, paramedics, administrative staff, diagnostics, patients, regulatory authorities, etc. It was a massive project, and we used a phased, plan-driven approach where all requirements were scoped out first and signed off by stakeholders. But if there would have been flexibility in the process and flexible regulatory requirements, an adaptive approach would be a better choice.

My mind was cluttered with the departments and the approaches they must follow to execute their projects. The CTO and his words were lingering in my mind. Is agile the de facto method for software technology? What about the other processes?

I would like your views on the various PM approaches used in healthcare.

Author: Good question! PM approaches need to blend seamlessly with the healthcare context for a good project outcome. I avoid using a specific PM approach, for each has pros and cons. In my experience, I have seen that we start projects that have defined requirements to go the waterfall way, more so when they are large projects, which also causes project overruns. HIMS project was one such project. These led to exploring new working methods such as agile, hybrid, etc. You have seen how hybrid works in the ED setting. Then there is the waterfall that suits other healthcare projects. A few scenarios to evaluate the selection of PM approaches (indicative list only).

1. Emergency department setting and other critical care processes.
2. Health Information Management Systems - Software application development.
3. Community Health Program - Hearing ability screening in newborns from underprivileged communities.
4. Positive patient experience projects across the value chain of his care.
5. The drug development process in the pharmaceutical industry.

Mary: When analyzing an approach for a particular project, do we need to consider any project-specific considerations?

Author: Oh yes, a few questions to consider are as follows<sup>1</sup>

- The different types of stakeholders and contexts involved. Stakeholders in patient care are varied. They have diverse interests in the project.
- Knowledge of budget, timeline, resources, risks, and critical project factors. The healthcare industry is trying to borrow and adapt the concept of economies of scale to derive financial rewards while maintaining the quality of patient outcomes. Cost saving is crucial to any healthcare setting.

- Mandatory regulatory constraints and ethical considerations<sup>2</sup> on the project – typical to healthcare.
- Familiarity factor around project management approaches. In healthcare, clients include patients and other stakeholders.
- Project size and complexity. Complexity in the healthcare industry revolves around the diversity of tasks, subjectivity in decision-making, variation in clinical settings, implementation of new technologies, and the uniqueness of individual patients and their diseases.

Patient and hospital-care activities may not be amenable to sequential processes where one must wait long to see results. A mix of quick outcomes, yet a step-by-step approach, needs to be considered.

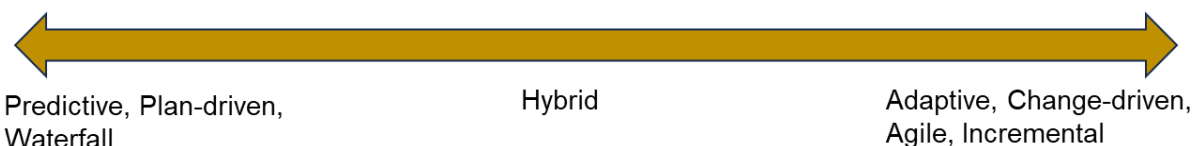


Fig 1: Project Management Approaches

While agile (adaptive) is best used during uncertain conditions with unpredictable supplies and demands, the waterfall (predictive) approach may be better for stable environments with predictable input and output.

Mary: From our earlier discussion on healthcare industry details and the universe of healthcare projects<sup>3</sup>, in projects related to global healthcare, different factors like “complexity,” “environment,” and “stakeholders” come into play. So, will agile be a good approach for such projects?

Author: In these cases, with the complexity and size of the projects, it will likely be a hybrid approach. Agile, waterfall, and Lean Six Sigma may be used in different stages depending on the project.

Mary: When we discussed the “Universe of Projects,” you spoke about population health and community health program. Many projects are executed in the community health category, so I am curious about the methodology in such cases.

Author: I love your enthusiasm for analyzing these scenarios and thinking about various projects. Let me take the example of “hearing ability screening in newborns from underprivileged communities.” Let us walk through the factors that play here, and we can arrive at the approach.

As you are aware, community-based projects fall under population health. Multiple stakeholder categories include the government, non-governmental organizations, community/state and national agencies unique to the country, investors, and funding agencies such as the World Bank, physicians, healthcare workers, caregivers, medical supplies providers, and many more. The project needs detailed planning, funding and approvals, clarity on the scope, and scientific nudging methods. Therefore, a waterfall model with different phases suits this best. There could be different phases where approvals are taken, awareness/education on the need, getting the equipment for testing, staffing, etc. This type of community health project needs a full-blown work breakdown structure (WBS), scheduling, and stakeholder management, and it will be a plan-driven approach. While the outcome/result is clear, due to the complexity of stakeholder management and the project scope, waterfall/plan-driven works well in this scenario. When the hearing screening for newborn babies is done, there can be an iterative approach to ensure that the learning from each cycle is funneled into the following process, making the required changes and moving on.

Mary: Oh yes! I can see how things are considered while deriving an approach. Patient experience is critical for healthcare. It is a patient-centric approach that is key to the industry. What project management methodology works for that?

Author: Creating a positive patient experience across the entire patient care value chain is a huge project. At the highest level, needs to be a waterfall model, but there are so many different sub-projects within which would require deeper analysis and a different management technique. Regardless of the approach, one of the end goals of patient care is a positive patient experience - putting the patient experience at the front and center! This is a function of quality at all processes and sub-processes of the patient care value chain.

At a top level, the patient experience starts with the time they enter the hospital and how efficiently they are moved until they exit. Many processes are involved, from patient registration to billing and discharge, which can be optimized to improve the patient experience. Please be reminded that I was a patient during my ankle fracture recovery<sup>4</sup>, which was a first-hand experience for me to experience what the other patients experience. Long patient wait times have been a long-standing complaint among patients. Frustration and dissatisfaction peak as the patients wait for the required service without information. Reducing patient wait times can be a low-hanging fruit to improve the patient journey/patient connectedness.

We can apply Lean Six Sigma<sup>5</sup> to bring in process improvement whenever there are processes. By defining the workflow and process, you can see the different aspects that come into play, identify gaps, and bring in progress. Six Sigma applies this philosophy from Peter Drucker's statement, "What you can't measure can't be managed," This methodology involves the DMAIC (Define, Measure, Analyze, Improve, and Control) approach.

Mary: That is helpful. I was not aware of the DMAIC approach. What about the drug development process in the pharmaceutical industry? As I know, drug development is a complex process. Would agile be the methodology or a hybrid approach work?

Author: Yes, drug development involves multiple phases, from drug discovery, pre-formulation, clinical development, clinical trials, regulatory approvals, and many more. The overall approach is known as the “pharmaceutical development paradigm.” This uses a “Quality by Design<sup>6</sup>” approach, and the different stages use different methodologies. The “Quality by Design” approach builds quality into the product by design, meaning the critical quality attributes are defined at the beginning, and there is a heavy focus on quality and risk management in the product and process tying in the process control. For example, agile works better in the “chemistry, manufacturing, and control” phases since there is a need for cross-functional collaboration among teams. For quick iterations, pharma companies are moving towards a collaborative approach using agile principles, thereby reducing the overall project timelines, getting feedback from stakeholders, and reducing their “go-to-market” time in their digital transformation projects.

Mary: No one approach can be fixed; it’s all combinations of approaches to make the best possible choice in a setting. The project team must continually evaluate the progress and change/tailor the approaches accordingly. We spoke about the Project Management Office (PMO) earlier. Where does PMO fit in?

Author: The hospital’s PMO is responsible for the centralized, coordinated management of the projects. PMO’s primary goal is to increase its healthcare services’ efficiency and effectiveness. The PMO has oversight of projects and programs related to hospital departments. With prioritization, tracking, support, communication, managing interdependencies, and benefits realization as critical activities, PMO plays a role in strategy and supporting project operations. The PMO comprises project and program managers, process improvement experts, administrative staff, and, most importantly, clinical experts to ensure seamless alignment with vital clinical activities. PMO helps assess the fitment and viability of these PM approaches to hospital management processes.

Mary: So, does the PMO also have a role in the process and its PM approach identification? I would like to know what determines the success or failure of any PM approaches in healthcare.

Author: Yes. PMO helps in due diligence of which approach would best fit the given project and assists with training, documentation, and any similar support needed by the project teams. In short, PMO helps in the process of project tailoring.

Mary: What is project tailoring, and how is it essential in healthcare projects?

Author: According to PMBOK® Guide - Seventh Edition, tailoring is a process of adaptation of the PM approaches, governance, and techniques to make them suitable for the project work and the existing project context and environment. It's crucial to analyze the project factors influencing the end objective carefully. Here is a quiz for you! Name the best option in this case. What are the critical factors in the selection of a project approach? Here are the options.

- a) Stakeholder requirements and definition of project success.
- b) Organizational culture related to the waterfall or agile preference.
- c) Project management maturity of the organizations – healthcare has seen a lag in this dimension.
- d) The clarity in ownership by stakeholders/stakeholder engagement.
- e) All the above

Mary: I will go with option e).

Author: You are right. Governance and conflict resolution methods adopted by the organization, team knowledge and communication of various approaches, consistency, delivery of actual value, and gaining the trust of the clients and team members, organizational culture are a few others to consider. Patient-centric and vulnerable to constant changes, healthcare projects must be carefully monitored to facilitate the appropriate operating environment. A surgical technique for a specific case may need to be tailored to meet the patient's context before or during the surgery. These are quick decisions and can be life-saving!

Mary: I agree with you. Other than the project management approach, other environmental factors are critical to the success of the approach. Given the uniqueness of the healthcare industry, what are some essential aspects to consider?

Author: That is a valid point. You need to be aware of your organizational hierarchy, reporting relationships, roles, responsibilities, influence, and authority as a project manager based on the organizational structure you are working in. Let us look at a few example scenarios for you to understand better.



Organization Type	Project Manager's Authority	Resource Availability	Control over Budget	Example Project (Indicative and broadly suggestive list only).  <i>Disclaimer: Individual project/contextual variations may exist.</i>
Functional	None	None	None	Project manager in a hospital for setting up a knowledge base, training and support services and so on with dedicated departments to cater to these functions.
Matrix	Partial - Only on the project tasks	Part -time	To some extent	Project manager designated for the project from IT department for migrating the existing Hospital Management Information System to the cloud
Projectized	Complete - On the project	Full-time	Complete	Project Manager IT services company dealing with client projects, executing healthcare IT projects such as digitization of clinical documentation

Fig 2: Organizational Types and Project Manager's Authority

Mary: This is helpful. As we discuss these PM approaches, their variants, and their applications in patient care settings, I am curious to know how the healthcare fraternity views all this.

Author: You bring up a good point. As we have discussed, the healthcare industry has a presence of stakeholders with varied interests in patient care, ranging from treating physicians to the community. For promoting any change, it's essential to recognize critical stakeholders, directly and indirectly, influencing patient care processes. Also, note that there is engagement-centered shared decision-making with active interdependence on stakeholders in healthcare. This group is engaged and invested in patient care processes and accepts change openly if they are well-informed of the change and the outcome it will bring.

There are various ways in which healthcare workers, especially providers, look at the PM approaches and methodologies. Healthcare workers, including physicians and others, are positive stakeholders in a PM approach. It's good to get them involved right from the project's inception to the closure to earn their continued support.

Mary: That makes sense. How about patients or health plans? These two groups are key stakeholders in any change management or process implementation.

Author: For the patients and their caregivers/families, a positive patient experience with a satisfactory outcome is supreme. Like the healthcare providers, communicating a change or creation of workflow is crucial in getting them aligned to the end objective of these projects. Health plans are also similar. Their stake in patient care processes is quality patient care and financial viability. Hence any approach that helps manage this is, by and large, supported by this group.

Mary: I am better equipped to assimilate the day-to-day functioning of the hospital processes now. I see a specific rationale in the approaches used for a project and tailoring to fine-tune the strategy and make it work. One last question before calling it a day! What PM approach works best in resource-constrained projects?

Author: That's another good question. Here is an example to explain. Traditionally projects related to healthcare training services projects have used a waterfall approach. However, during the Covid-19 pandemic, when there was an acute shortage of healthcare resources and specially trained resources to take care of the deluge of patients, an agile approach to training healthcare workers needed to be adopted. Incremental changes needed to be brought in a nimble and agile training approach. Does this help you understand how a project approach can change in some unique circumstances?

Mary: Oh, yes! The Covid-19 example makes it so clear. Isn't this yet another example of project tailoring? Many more such transitions in project approaches must be used. I will keep a lookout for such examples from my observation. Thank you so much for enlightening me on this yet another core topic of healthcare and project management. For our next session, let's discuss global project management.

Author: Yes, it is. Tailoring is a continuous process in managing projects. I am glad this discussion helped you. Create notes of your observations, and we can discuss engaging scenarios in our next session.

I look forward to talking to you soon about global project management.

## **Conclusion**

Healthcare PM approaches are as varied as the nature of the healthcare projects. In an ever-evolving healthcare industry, new healthcare projects on the horizon include space medicine, AI-enabled healthcare decision-making, 3-D printing and genetic mapping, sensor-enabled home healthcare, new therapeutic approaches for chronic conditions such as stem cell therapy, and more. Regardless of the project and its objectives, the management approach must be comprehensive and impart a quick result.

Most projects do not fall under one standard PM approach. Zeroing in on one project management approach or combining multiple techniques is essential for achieving project success. Project tailoring is critical to determine the right course, and the project manager is the best judge in selecting, planning, and executing the PM approach.

## **Stakeholders in healthcare**

According to PMBOK® Guide - Seventh Edition, a stakeholder is “an individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio” Stakeholders in the

healthcare system are a diverse group encompassing healthcare professionals (physicians, nurses, physician assistants, and so on), pharmacists/pharmaceutical firms, hospital administrators, insurance companies, consumers or patients, patients' caregivers and families, paramedical and ancillary staff such as laboratory professionals, ambulance drivers, medical suppliers. The group can also include governments, employers, and communities at large.

## References

1. Bhide, D. (2023). An Industry Perspective, Healthcare and Project Management, series article, PM World Journal, Vol. XII, Issue II, February.  
<https://pmworldlibrary.net/wp-content/uploads/2023/01/pmwj126-Feb2023-Bhide-an-industry-perspective-healthcare-and-project-management.pdf>
2. Bhide, D. (2023). Ethical Decision-Making in Healthcare, Healthcare and Project Management, series article, PM World Journal, Vol. XII, Issue V, May.  
<https://pmworldlibrary.net/wp-content/uploads/2023/05/pmwj129-May2023-Bhide-Ethical-Decision-Making-in-Healthcare-series-4.pdf>
3. Bhide, D. (2023). Universe of Projects, Healthcare and Project Management, series article, PM World Journal, Vol. XII, Issue III, March.  
<https://pmworldlibrary.net/wp-content/uploads/2023/03/pmwj127-Mar2023-Bhide-universe-of-projects-healthcare-and-pm-series-2.pdf>
4. Bhide, D. (2023). Patient Care as a Project, Healthcare and Project Management, series article, PM World Journal, Vol. XII, Issue V, June.  
<https://pmworldlibrary.net/wp-content/uploads/2023/05/pmwj130-Jun2023-Bhide-patient-care-as-a-project-pm-and-healthcare-series-6.pdf>
5. Lean Six Sigma Applications in Healthcare -  
<https://www.qualitydigest.com/inside/healthcare-article/lean-six-sigma-applications-healthcare-041416.html>
6. An industrial case study: QbD to accelerate time-to-market of a drug product -  
<https://aapsopen.springeropen.com/articles/10.1186/s41120-021-00047-w>
7. Bhide, D. (2023). Understanding and Managing Shortages in the Healthcare Industry, Healthcare and Project Management, series article, PM World Journal, Vol. XII, Issue IV, April. <https://pmworldlibrary.net/wp-content/uploads/2023/04/pmwj128-Apr2023-Bhide-managing-shortages-in-healthcare-industry-series-3.pdf>
8. PMBOK® Guide - Seventh Edition

\* - Name changed to protect privacy

## Glossary

CTO: Chief Technology Officer

ED: Emergency Department

HIMS: Health Information Management Systems

IV: Intravenous

IP: Inpatient service

OPD: Outpatient department

PM: Project management/Project Manager

PMBOK®: Project Management Body of Knowledge

PMI: Project Management Institute

WBS: Work Breakdown Structure

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## About the Authors



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**Sunanda Gundavajhala** brings 25+ of experience in Process Re-engineering, Product Development, and People Management across multiple verticals. She comes with experience in defining & improving business processes and systems for various functions and building new capabilities. As Head of Operations, Sunanda drives HR, Market Research, and Finance Strategy for DispatchTrack India operations.

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Sunanda holds a Master's in Business Management and Bachelor's degree in Chemical Engineering. She is a PMP (Project Management Professional) and DASSM (Disciplined Agile Senior Scrum Master) certified. She has consulted with many marquee clients and trained professionals in earlier stints in project/program management areas. Sunanda also volunteers for non-profit organizations for the hearing impaired on project strategies and has been a long-standing volunteer with the local PMI chapter leading social good projects. As a joint secretary of the alumni association, Sunanda is spearheading multiple initiatives for her undergrad school (Chemical Engineering Department at Osmania University) and mentoring the students. She has co-authored multiple Project Management and Business Ethics books and published articles in multiple journals. Sunanda lives in Hyderabad, India.



**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 a variety of 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](mailto:deepa.bhide@gmail.com).