



Why Use a Methodology to Manage Healthcare Information Technology Projects?

Frequently Asked Questions (FAQs)

**HIMSS Project Management Task Force Deliverable
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Completing a Healthcare Information Technology (HIT) project successfully is daunting because most of these projects fail. A project management methodology applies industry best practices proven to increase the likelihood of success. Success means completing an HIT project within scope, on time, and within budget, while delivering the quality expected by your organization.

A Guide to the Project Management Body of Knowledge, created by the Project Management Institute (PMI), includes nine Knowledge Areas, or areas of expertise, required to successfully manage a project. The Project Management Task Force prepared FAQs, with answers that explain these Knowledge Areas, including healthcare specific examples of their impact on project success. Click on the FAQs below for more information.

FAQs

[How do I put the project together?](#)

[What does the project include?](#)

[How long will the project take?](#)

[How much will the project cost?](#)

[How do I complete the project successfully?](#)

[Who participates in the project?](#)

[How do I share project information?](#)

[How do I avoid project failure?](#)

[How do I buy what the project needs?](#)

Project Management Knowledge Area	Key Project Management Processes	Examples of Impact on Project Success
<p><u>Integration Management</u> – How to coordinate all aspects of the project so that all project elements come together at the right time to complete the project successfully.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Prepare Project Charter</u> – Develop a document to formally authorize starting the project. • <u>Develop Preliminary Project Scope</u> – Define and document the project boundaries, requirements, deliverables, and methods of deliverable acceptance. • <u>Prepare Project Management Plan</u> – Define, prepare, integrate, and coordinate all subsidiary plans used to plan, execute, control and close the project. • <u>Direct and Manage Project Execution</u> – Conduct the work defined in the Project Management Plan. • <u>Monitor and Control Project</u> – Collect, measure, and disseminate performance information, and assesses measurements and trends, to affect process improvements. • <u>Conduct Integrated Change Control</u> – Control factors that create changes verifying and monitoring occurrence of approved changes. • <u>Close Project</u> – Finalize all activities and formally close the project or project phase. 	<p>Preparing a project charter gives the executive sponsor (i.e., someone in an executive leadership position who will champion the project) and project team an opportunity to make sure they are in agreement on the major deliverables that will be produced by the project before it begins.</p> <p>A recent ambulatory care EMR project failed because there was a gap between what the clinicians expected and what the project delivered.</p>

<p>Scope Management – How to clearly define and understand what the project will accomplish or produce.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • Plan Scope – Manage the definition of project scope, including verifying and controlling how the project defines the Work Breakdown Structure (WBS). • Define Scope – Develop a detailed project scope statement. • Create WBS – Subdivide major project deliverables and project work into smaller,manageable components. • Verify Scope – Confirm acceptance of project deliverables according to pre-defined criteria. • Control Scope – Manage changes to project scope. 	<p>Define and manage changes to the scope of the project to ensure a firm basis for estimating and controlling schedule and cost.</p> <p>A large public hospital’s administrative, financial, and clinical system implementation failed because they did not adequately define what was included (and excluded) in the project.</p>
<p>Time Management – How to ensure completion of the project within an approved schedule.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • Define Activities – Identify the specific activities that the project will perform to produce all of the deliverables. • Sequence Activities – Identify and document dependencies between activities. • Estimate Resources by Activity – Estimate the type and quantity of resources required to perform each activity. • Estimate Duration by Activity – Estimate the work period required to complete each activity. • Develop Schedule – Organize the project activities, including their sequence, duration, resource requirements, and constraints, 	<p>Define the schedule at the beginning of the project based on clearly defined scope. Taking the time required to complete the processes required to prepare, execute, and control a schedule increases the likelihood of timely project completion.</p> <p>A public hospital had a project failure. They prepared a recovery project including several months to plan the schedule. This contributed to a successful on-time project completion.</p>

	<p>according to a timetable.</p> <ul style="list-style-type: none"> • <u>Control Schedule</u> – Manage changes to the project schedule. 	
<p><u>Cost Management</u> – How to ensure completion of the project within an approved budget.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Estimate Costs</u> – Develop an approximation of the costs required to complete all project activities. • <u>Prepare Budget</u> – Organize estimated costs by the activities required to complete all project deliverables and cost baseline. • <u>Control Costs</u> – Manage changes to the project budget. 	<p>Scope definition, followed by schedule definition, provides key information for better estimating, budgeting, and controlling project costs.</p> <p>A hospital selected an HIS vendor to supply administrative and financial systems. The hospital added clinical systems without fully estimating scope change. Without clear scope definition the actual project costs exceeded budget estimates by 110%.</p>
<p><u>Quality Management</u> – How to ensure that the project team will complete the project and associated deliverables to achieve the project objectives.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Prepare Quality Management Plan</u> – Define applicable quality standards and how the project will comply with them. • <u>Conduct Quality Assurance</u> – Apply planned, systematic quality activities, to ensure that the project supports its requirements. • <u>Conduct Quality Control</u> – Monitor specific project results to determine if the project complies with specified quality standards and identify ways to eliminate causes of unsatisfactory performance. 	<p>Quality management relies on definition of, and compliance with, project management best practices or standards. The project manager collects metrics, to identify deviations from the standards and to specify and implement corrective actions.</p> <p>A vendor delivered several software modifications with defects. A hospital spent months testing vendor software, identifying errors, returning the software to the vendor for repair, and repeating this cycle without significant improvements. Eventually the vendor refused to repair any more defects unless they received more money. The hospital refused to pay. The hospital eventually cancelled the project because the parties failed to adequately define standards regarding software defects and acceptance criteria for vendor payment.</p>

<p><u>Human Resources (HR) Management</u> – How to identify, document, monitor, and control project personnel performance in terms of the roles, responsibilities and reporting relationships assigned to them.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Prepare Human Resource Plan</u> – Identify and document project roles, responsibilities, and reporting relationships. • <u>Acquire Project Team</u> – Obtain the human resources needed to complete the project. • <u>Develop Project Team</u> – Improve the competency and interaction of project team members to enhance project performance. • <u>Manage Project Team</u> – Track team member performance, provide feedback, resolve issues, and coordinate changes to enhance project performance. 	<p>A project team failed to have a single contact point with authority over the project. While there was a project manager, the immediate supervisor for each project team member often interfered with or tried to change the decisions of the project manager. The hospital eventually had to cancel the project because of severe delays caused by this issue.</p>
<p><u>Communications Management Plan</u> – How to ensure timely and appropriate generation, collection, distribution, storage, and disposition of project information.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Prepare Communications Plan</u> – Determine the information and communication needs of the project stakeholders, i.e., anyone affected by the project. • <u>Distribute Information</u> – Make information available to project stakeholders in a timely manner. • <u>Conduct Performance Reporting</u> – Collect and distribute project performance information including status reports, progress measurements, and forecasts. • <u>Manage Stakeholders</u> – Manage communication to satisfy requirements of, and resolve issues with, project stakeholders. 	<p>A clinical systems implementation had multiple issue lists. The project team could not grasp the number of, and relationship between, issues. A new project manager consolidated all issues into a single list, which eliminated duplicates. The project manager also instituted a proactive issues management process, which quickly identified and tracked each issue through its resolution.</p>

<p>Risk Management – How to minimize potential negative risks to successful project completion.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Prepare Risk Management Plan</u> – Define how to approach, plan, and execute project risk management activities. • <u>Identify Risks</u> – Determine which risks may affect the project and document their characteristics. • <u>Conduct Qualitative Risk Analysis</u> – Prioritize risks based on their probability and impact of occurrence. • <u>Conduct Quantitative Risk Analysis</u> – Analyze risks numerically, and rank and estimate their effect on achieving project objectives. • <u>Prepare Risk Response Plan</u> – Develop options and actions to reduce the adverse effect of identified risks on achieving project objectives. • <u>Monitor and Control Risk</u> – Track identified risks, monitor residual risks, identify new risks, execute risk response plans, and evaluate their effectiveness throughout the project lifecycle. 	<p>The vendor responsible for a lab interface was always slow to fix problems with a particular hospital's order entry system. The hospital had a new project that included an order entry system replacement. The hospital prepared a risk register and a response plan for each risk, including how to resolve vendor performance problems during repair of the lab interface. Having a proactive risk management process improved vendor problem resolution, avoiding a source of potential project delay and cost overrun.</p>
<p>Procurement Management – How to acquire goods and services in a manner that supports the project.</p> <p>Return to FAQs</p>	<ul style="list-style-type: none"> • <u>Prepare Procurement Management Plan</u> – Determine what, when, and how to purchase for the project. • <u>Plan Contracting</u> – Document products, services, and result requirements and identify potential sellers. • <u>Require Seller Response</u> – 	<p>A home health care company hired a physician to deliver an infusion therapy system. This system calculated complex drug therapies provide for ambulatory chemotherapy patients. There was no competitive bid to compare products, no contract clause to control timely delivery of the product, and no terms</p>

	<p>nd obtain tion, quotations, ids, offers and/or proposals.</p> <ul style="list-style-type: none"> • <u>Select Seller</u> – Review offers, choose sellers, and negotiate a written contract. • <u>Administer Contract</u> – Manage the contract and relationship between buyer and seller, including reviewing and documenting seller performance. • <u>Close Contract</u> – Complete and settle each contract, including the resolution of any open items and close each contract. 	<p>regarding software quality standards. While the home health care company received the product, it did not meet their expectations. They eventually settled a dispute with the doctor, brought the system in-house, re-wrote it, and implemented it at a cost of over double their original budget.</p>
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Resources

A Guide to the Project Management Body of Knowledge. (PMBOK® Guide), 2000 Edition.
Project Management Institute, Newton Square, Pennsylvania.

Information Technology Project Management, Fifth Edition 2007. Kath Schwalbe. Thomson
Course Technology.

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Projects, January 7 2008.* A deliverable of the HIMSS Project Management Task Force.
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