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Building and Implementing an Operational Plan

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Abbreviation: PACS = picture archiving and communication system

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Radiology practices engage in planning processes with varying frequency. Organizational planning can occur on three levels. Strategic planning is an infrequent event occurring every 5–7 years. It is aspirational and is guided by the mission and the vision of the organization. Operational planning is a yearly process in which businesses articulate their goals for the year. Creating a yearly operational plan provides departmental employees with a road map for the upcoming year and helps to tie their daily activities to the larger strategic plan of the organization. Finally, a project plan provides details describing how a specific goal will be met. The differences among these three types of plans (strategic plan, operational plan, and project plan) are described. The article then focuses on operational planning, providing a rationale for building an operational plan and then a description of the method used in the authors' division to build an operational plan.

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SA-CME LEARNING OBJECTIVES

After completing this journal-based SA-CME activity, participants will be able to:

- Describe the purpose of strategic planning.
- Describe the purpose of operational planning.
- Identify the differences among a strategic plan, an operational plan, and a project plan.

See rsna.org/learning-center-rg.

Introduction

Operational planning is a yearly process in which businesses articulate their goals for the year, specifying what they want to accomplish and their specific measures of success. Although operational planning is routinely used in businesses, it is uncommonly used in medical practices; in the rare instance that operational planning is implemented, the planning often occurs at a high level within an organization. Smaller business units within the organization infrequently plan in any detail. The purpose of this article is to *(a)* describe how operational planning differs from strategic planning, *(b)* provide the rationale for how operational planning can help a radiology practice, and *(c)* describe the method we use for operational planning in our small imaging informatics group. Although the article describes how our imaging informatics group has developed and used this process, we believe that a similar process can be used by any radiology practice.

Strategic Planning Compared with Operational Planning

Strategic planning is a forward-thinking process (1–14). When organizations undergo strategic planning, the goals are lofty and often represent a vision of where the organization would like to be in 5–7 years. As such, strategic planning represents a major undertaking for any organization and only happens cyclically, once every 5–7 years. Although organizational leaders, such as the chief executive officer or the board of trustees, are ultimately responsible for developing the strategic plan, this type of planning typically involves a diverse group of stakeholders so that the organizational leaders can be best informed by the knowledge of the employees and the marketplace (1,2,8,11,13,14).

TEACHING POINTS

- Strategic planning is a forward-thinking process. When organizations undergo strategic planning, the goals are lofty and often represent a vision of where the organization would like to be in 5–7 years.
- The goal of an operational plan is to directly tie the day-to-day activities of the frontline staff to the strategic plan of the organization.
- Completing the milestones became an important step in our team's day-to-day work, and the percentage of milestones completed became a surrogate of the "on-timeness" of our operational plan.
- When making assignments, the leadership team keeps several things in mind. First, as described previously, we look at the overall project plan and make sure that each team member has at least one project, while ensuring that no team member has more than he or she can handle. Based on skill and the specific team member's experience with past projects, the leadership team has an understanding of the volume and complexity of projects that any one person can handle. Second, we use the operational projects as a method to promote employee growth.
- The project plan is a detailed description of all of the events that will be used to complete the project.

Strategic planning is considered aspirational. Thus, it is important that the strategic plan is guided by the mission and the vision of the organization (1,2). A strategic plan that is in conflict with the mission and vision of the organization is unlikely to be successful. When completing a strategic plan, an organization should answer three questions: *(a)* Where are we now? *(b)* Where do we want to be at the end of the strategic plan? *(c)* How will we get there (1)? The best strategic plans define measures of success for each strategic goal (5,6,11,13,14). These measures provide the organization with objective targets to strive for and provide employees with the knowledge of how their work will be evaluated.

Strategic planning can be used in radiology practices (6). Examples of strategic plan goals are presented in the following paragraphs:

1. We aim to diversify our practice to protect against the changing health insurance landscape and the local population shift. To successfully diversify, our practice will *(a)* open at least two local-regional stand-alone imaging centers on the basis of our known geographic coverage gaps; *(b)* investigate additional potential revenue streams, and select at least one new revenue stream to invest up to $5 million; and *(c)* attempt to negotiate a new multiyear agreement with each of our top five payers (by claims submitted). The goal of negotiation will be to increase the percent of dollars reimbursed, compared with the amount of dollars billed, from 45% to at least 55%.

2. We aim to become known as one of the premiere academic practices in the Midwest. To accomplish this goal, our department will *(a)* be ranked in the top five in the Midwest with regards to National Institutes of Health grant funding, *(b)* hire at least three grant-funded physician-scientists or scientists with a doctor of philosophy degree, *(c)* publish at least 100 articles highlighting original research in journals with an impact factor of 1.5 or higher, and *(d)* open and fill fellowship programs in every division within the department.

Note that although both of the previous goals describe how the practice will achieve success, the strategic plan does not provide the details of how each goal will be accomplished. The details of how these goals will be met are provided in the operational plan.

The operational plan differs from the strategic plan in a number of areas (Table) (2,3,10,15–18). First, while a strategic plan provides a vision for where the organization wants to be in 5–7 years, an operational plan provides a yearly plan detailing how a specific goal will be met (2,10,15). The second difference is in how the plan is developed (Fig 1). A strategic plan is developed by executive leadership and is carried out with the sponsorship of organizational leaders (2,10,15). This differs from an operational plan, which is developed by managers and is carried out by frontline workers. The third difference between the different types of plans is in their guiding principles (2,10,15). A strategic plan is guided by the mission and vision of the organization, while an operational plan is guided by the strategic plan. The fourth difference is in the scope of each plan (2,10,15). Because a strategic plan is aspirational, the scope of the plan is large, and thus, it changes infrequently. An operational plan is more tactical and details how a small component of the strategic plan will be achieved. As the operational plan moves further down the management chain, the goals become more specific and the planning becomes more detailed until it reaches the level of a project plan where each step of the project is specified along with specific dates on a time line. It is important to note that the operational plan does not need to address each element of the strategic plan each year. At times, strategic goals must be staged because components of one goal are dependent on components of another goal. The final difference between plans is in the questions that must be answered in order to build an operational plan (2,10,15). An operational plan must answer four questions for each goal: *(a)* What is the specific goal of the project? *(b)* Who is responsible for completing the project? *(c)* When must the project be completed? *(d)* How much will the project cost to complete? In the final question, the

Differences between Strategic Planning and Operational Planning

Difference	Strategic Plan	Operational Plan
Scope	Vision of where an organization wants to be at the end of the plan	Yearly plan detailing how a specific goal will be met
Length	5–7 y	1 y
Plan developers	Executive leadership	Managers
Staff who complete the plan	Organizational leaders	Frontline staff
Guiding principles	Organizational mission and vision	Strategic plan
Planning subunits	Operational plans	Project plans

"how much" refers to money as well as human resources. In many cases, the answer to this final question comes during the budgeting process or the detailed project planning step.

A high-level operational plan for year 1 of the previous strategic plan is presented in the following paragraphs. Note that the operational plan ties each operational plan initiative to a specific strategic goal from the strategic plan.

1. Strategic goal 1a: By the end of the fiscal year, the business manager will *(a)* compare the city's population by "zip code + 4" with our patients' addresses, and determine our top 10 underserved zip codes, defined as the number of our patients in each zip code + 4 divided by the total adult population in each zip code + 4; and *(b)* use these data, along with local zoning ordinances, to identify the top five target zip codes for a new imaging center.

2. Strategic goal 1b: By the end of the fiscal year, the business manager and practice physician leadership team will research and hire a practice consultant to help identify new business opportunities.

3. Strategic goal 1c: By the end of the fiscal year, the practice physician leadership team will *(a)* interview and retain legal counsel with expertise in medical practices and insurance negotiations; and *(b)* review the current contracts with our top five payers, and enter negotiations with at least one insurer.

4. Strategic goals 2a and 2b: By the end of the academic year, the department will hire a vice-chair for research.

5. Strategic goal 2c: By the middle of the academic year, the radiologist-in-chief will develop an academic merit system that incentivizes and rewards scholarly activity among the faculty members.

6. Strategic goal 2c: By the end of the academic year, 60% of the faculty will be included as an author of at least one manuscript submitted for publication.

7. Strategic goal 2d: By the middle of the academic year, the musculoskeletal and emergency imaging divisions will have submitted to the graduate medical education office an application to open a fellowship.

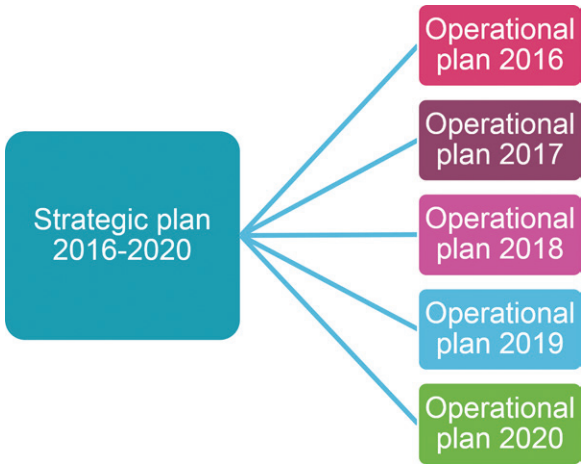

Figure 1. Diagram shows the relationship of operational plans to a strategic plan. Strategic plans are aspirational and change infrequently. They detail how an organization hopes to change during the course of the plan. Operational plans are more tactical and detail the exact steps needed to achieve a specific goal or series of goals.

Rationale for Building a Strategic Plan

The goal of an operational plan is to directly tie the day-to-day activities of the frontline staff to the strategic plan of the organization (2,10,15). Although this goal sounds theoretical, we believe that our own example of working on the radiology informatics team before we began operational planning brings clarity to this goal.

Between 2008 and 2010, the radiology informatics team had a new physician-leader (A.J.T.) who had just completed his medical and radiology training. This new leader helped to give the team direction and pushed the team to accomplish more than they had in previous years. During this time, the team implemented several major projects, including selection and implementation of a replacement for the picture archiving and communication system (PACS); selection and implementation of a replacement

Radiology Informatics - Operational Plan 2012			% Complete – Target vs Actual			
Area	Operating Initiatives	Initiative Owner	Q1	Q2	Q3	Q4
Outreach	Complete Phase II solution for teleradiology		0/0	0/0	0/0	0/0
	Determine overall strategy for outside study import/export		0/0	0/0	0/0	0/0
Information Technology	Institutional vendor-neutral archive		0/0	0/0	0/0	0/0
	PACS disaster recovery solution		0/0	0/0	0/0	0/0
	Radiology report search engine deployment		0/0	0/0	0/0	0/0
	Voice dictation system upgrade		0/0	0/0	0/0	0/0
Development	Radiology Daily Dashboard – Phase II development		0/0	0/0	0/0	0/0
	Creation and deployment of PQI Tracking Database		0/0	0/0	0/0	0/0
	Guidance Dose Reduction project		0/0	0/0	0/0	0/0
	Radiology Alert System upgrade		0/0	0/0	0/0	0/0
	Creation and deployment of Radiology Informatics service checklist		0/0	0/0	0/0	0/0
	Completion and deployment of radiology website		0/0	0/0	0/0	0/0
	Creation and deployment of staff credentialing database		0/0	0/0	0/0	0/0
Research	Create online research data entry request form		0/0	0/0	0/0	0/0
	Automated DICOM PHI anonymization tool		0/0	0/0	0/0	0/0
	Create online Case Report Form (CRF) to include integration with PACS		0/0	0/0	0/0	0/0
Staffing	Fill open informatics position(s)		0/0	0/0	0/0	0/0
	Implement new on-call coverage		0/0	0/0	0/0	0/0

Figure 2. Example of our radiology informatics operational plan for fiscal year 2012. The plan is organized around our five strategic domains: outreach, information technology, development, research, and staffing. Multiple projects exist within each strategic domain. Each project is assigned an owner (redacted), and we are able to track the progress of each project in the final column. *DICOM* = Digital Imaging and Communications in Medicine, *PHI* = protected health information, *PQI* = practice quality improvement, *Q* = quarter.

for the voice dictation system; selection and implementation of a replacement for the radiology information system; multiple system upgrades; selection and installation of multiple peripheral software solutions, such as for three-dimensional postprocessing and report search systems; and multiple new processes, including a new peer review system and department-standardized structured reports. Although the team accomplished a lot, the pace was frantic, and team members complained that they had no input into the projects that they were working on and that they often felt blindsided by new projects.

To address these complaints, the radiology informatics leadership team (A.J.T., T.J.O., J.A.M.) began to slowly implement operational planning. The initial operational plan was simple. The leadership team identified five strategic domains on which the team was focused, and then the team brainstormed project ideas around each domain (Fig 2). Eventually, the team identified 18 projects as part of the operational plan. The projects were each assigned an owner, and the project owner was asked to write a project charter. The purpose of the project charter was to identify a goal for the project and build a high-level project plan with major steps specified for each quarter of the year.

Although this system improved communication of the yearly goals and projects, a new problem was identified. Even though the project owners understood their project and had clear goals, they did not know how to plan a project. The quarterly steps were often incomplete or too generic and did not account for different possibilities as the project progressed. Because of these issues, the team was often rushing at the end of the year to complete their projects. Some projects that should have been easily completed within the time frame were either completed late or not completed at all. To address these issues, the radiology informatics leadership team made additional changes to the operational planning process.

The biggest change was in naming one of the existing radiology informatics team members (L.A.P.) as the team project manager. This team member was selected for the project manager role owing to her organizational abilities as well as her work in leading major departmental projects. Our new project manager had no prior formal training in project management. After being assigned to the role, she completed a hospital-based project management course and a hospital-based quality improvement course.

With this new project manager role, the leadership team empowered the project manager to

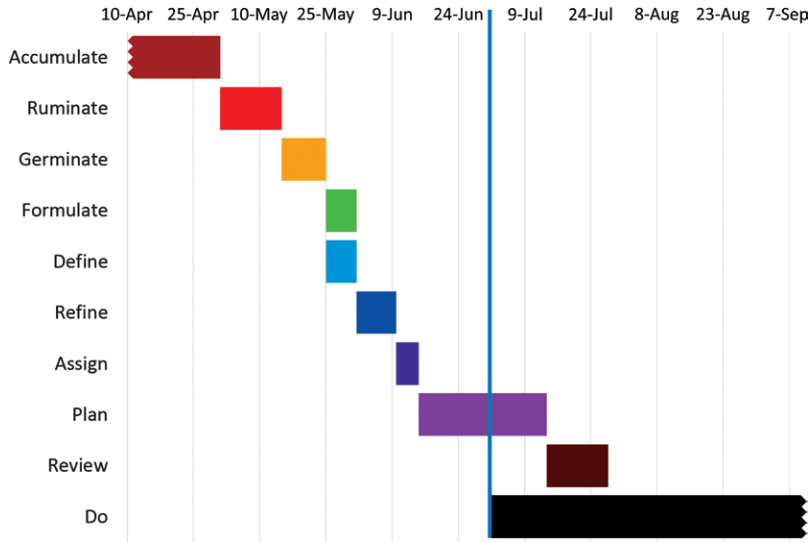

Figure 3. Gannt chart shows the major steps of our operational planning process. Note that the accumulate step and the do step extend beyond the time frame shown. The blue line represents the start of our fiscal year on July 1.

help other team members plan and enact their projects. Our project manager brought more organization to our process. Together, we identified milestones for each project and assigned dates for each milestone to be completed. Completing the milestones became an important step in our team's day-to-day work, and the percentage of milestones completed became a surrogate of the "on-timeness" of our operational plan. We also used approaching milestones as a way to identify projects that needed additional resources or interventions from the leadership team.

Operational Planning Process

Although our current operational plan process works smoothly, we anticipate that it will continue to change as our team's goals and its members change. Our current process for operational planning is presented in the following sections of the article (Fig 3). Even though this process works for us, it is presented as an example, not as a how-to guide. We believe that each team must find a process that works for them. In addition, our process is presented in a linear manner, with estimated times when each step should be completed. In reality, our process is not linear and is not time dependent. Steps in the process can occur out of order or simultaneously with other steps.

Throughout the description of our process, we use several terms that need to be defined. Our *radiology informatics leadership team* is comprised of the physician-leader (A.J.T.), the team manager (T.J.O.), the technical lead (J.A.M.), and the team project manager (L.A.P.). The term *team members* refers to members of the radiology informatics team who are not a part of the leadership team. Although people of different backgrounds and education can fill each role, we believe that a strong leadership team is crucial because this group translates the larger institutional or departmental vision to the frontline employees. As projects increase in number and complexity, a project manager becomes essential to coordinate the project portfolio. Our team currently is made up of 11 members, including the leadership team and project manager.

Accumulate

The goal of the accumulate step is to identify all of the potential projects that could be included in the operational plan. To accomplish this step, we keep a running list of potential projects (Fig 4). Any team member can add to the list. Potential projects are identified by way of a number of forums, including team meetings, meetings with departmental leadership, meetings with vendors, discussions among team members or team leadership, and discussions with customers (radiologists, technologists, and businesspeople). Our team usually begins adding items to the potential list of projects 6–9 months before the start of the next fiscal year. However, idea generation usually does not begin in earnest until 8 weeks before the start of the fiscal year. At this point, the leadership team puts out a call for potential projects.

Ruminate

The ruminate phase is when the leadership team begins to build the operational plan. During this stage, the leadership team is actively thinking about each potential project and how it fits into the larger strategy of the department. During this phase, the leadership team also begins to actively discuss each potential project and prioritize the projects. Although some teams have created a prioritization rubric, our prioritization process is less formal (19). We first separate each project into its strategic domain. Then we assign each project

Task Name	Category	Project Owner 1	Project Owner 2	Rating	Goal ready for revi...	project plan created	Preliminary Goal	Goal Feedback
Abstracts and Publications	Outreach				☐	☐	Submit abstracts to no less than 2 meetings during this fiscal year for consideration by related professional organizations (RSNA, SIIM, SPR, etc.) or publications.	
Graz Fetal MRI Second Opinion Teleradiology	Teleradiolo				☐	☐	Implement a process for CCHMC radiologists to provide second opinion interpretations on Graz, Austria fetal MRI exams. Goal is to be live by the middle of August, 2015.	In the project plan, we can include checkpoints on Intelemage and interface team progress with the contingency that if progress is not being made, a manual process will be implemented.
Teleradiology Process	Teleradiolo				☐	☐	Goal1) Implement a teleradiology process for CCHMC neuroradiologists to read MRI exams on NICU patients. Initial goal is to go live with the FY15 manual workflow within 8 weeks of requirements live in Intelemage version 4, Goal 2) 16 weeks following availability of both interface and Intelemage resources, go live with an interface to send results from CCHMC	
Adult Reads Implementation?	Teleradiolo				☐	☐	Establish a teleradiology process for CCHMC radiologists to electively send a study of an adult patient to UC for interpretation. The goal is to have the CCHMC part of the solution complete and prepared for testing within 6 months of workflow(s) approved by UC (Sept. 25th, 2015).	
Teleradiology Project	Teleradiolo				☐	☐	Establish a teleradiology overnight process for CCHMC radiologists to read select radiographs, CT and MRI exams for Children's Hospitals. Studies sent to CCMC will be based on clinician request. The goal is to go live within 6 months of workflow approved by project leadership.	
Detailed Review and update of all Documentation?	Technolog / Support				☐	☐		
Diagnostic Monitor Replacement	Technolog / Support				☐	☐	Goal 1) Evaluate existing diagnostic monitors and make decision on replacement, Goal 2) If decision is to replace monitors, document requirements and test potential replacement monitors, Goal 3) If replacement option found, submit PO by the middle May, 2016.	*Based on required replacement (thought Alex mentioned we WILL be replacing monitors due to age)* Goal 1) Evaluate and demo diagnostic monitors with staff to make decision on replacement model. Goal 2) If feasible, document requirements and establish project budget for PO submission PO by the middle May, 2016. · 2Q-4Q FY timeline starting with RSNA trip to kickoff vendor evaluation. Vendor contacts and evaluation will immediately follow moving into requirements, decision, then PO.

Figure 4. Screen capture (from *Smartsheet.com;* Smartsheet, Bellevue, Wash) shows how our group begins our operational planning process. In the accumulate step, only the first column at left ("Task Name") is filled out. This column represents a list of all of the potential projects for the upcoming fiscal year *(FY)*. In the ruminate step, each project is categorized by its strategic domain in the second column ("Category") and is prioritized in the colored "Rating" column, in which green represents projects of high priority, yellow (not shown) represents projects of medium priority, and gray represents projects of low priority. In the define step, an entry is added in the "Preliminary Goal" column for each project. In the refine step, the team members provide feedback. The feedback is recorded in the final column at right. After the goals are refined, the project owners are assigned (third and fourth columns). *CCHMC* = Cincinnati Children's Hospital Medical Center, *Graz* = Medical University of Graz (Graz, Austria), *NICU* = neonatal intensive care unit, *PO* = purchase order, *Q* = quarter, *RSNA* = Radiological Society of North America, *SIIM* = Society for Imaging Informatics in Medicine, *SPR* = Society for Pediatric Radiology, *UC* = University of Cincinnati.

a high, medium, or low priority. The priority assignment is based on the needs of the department, the project's alignment to departmental or hospital strategic goals, and contractual obligations.

After prioritizing each project, we begin to build the operational plan. The goals of this draft are to make sure that each strategic domain has at least one project, that each team member has at least one potential project, that one team member will not have too many projects, and that the potential projects can actually be accomplished during the fiscal year. At the completion of this step, projects that are unlikely to be a part of the final operational plan are removed. The goal is to have completed this step 6 weeks before the start of the fiscal year.

Germinate

The germinate phase is when the potential operational plan projects are socialized among team members. This socialization occurs at one or two team meetings. Typically, the list of projects is shown in a meeting, and the team leader facilitates a short discussion about each project. This discussion is an opportunity for the team to provide input regarding the potential project, identify key elements that are missing from the project plan, review the timing and overlap of the potential projects, and discuss the goal for each potential project. Importantly, no decisions are made at the team meetings. Instead, team members are encouraged to talk about the potential projects among themselves and provide feedback to the leadership team. At this time, the leadership team also asks the team members to identify projects that they would like to lead.

Formulate

On the basis of the team's feedback, the second draft of the operational plan is created by the leadership team. Once again, attention is paid to ensure that the operational plan contains projects within each strategic domain and that each team member has at least one potential project. To keep the team engaged, project assignments are not disclosed at this point. Our goal is to complete this draft of the operational plan 1 month before the start of the fiscal year.

Define

After the operational plan is drafted, the leadership team begins to develop the goal for each project. When possible, we try to identify objective measures of success for each project. The quality of the measure varies by project. For example, if the project relates to the installation of a

new system, the goal is typically to "go live" with the system's first productive use by a certain date. Other projects are more typical of improvement projects and have a well-defined specific aim. For example, the goal of our project to prepare our department for a conversion from the coding system of the *International Classification of Diseases, Ninth Revision* (ICD-9), to the coding system of the *International Classification of Diseases, Tenth Revision* (ICD-10), was to decrease the percentage of final radiology reports with an unspecified ICD-10 code from 43% at baseline to 27% by October 1, 2015 (20).

In earlier versions of our operational planning process, we asked the team members to develop the goals for their projects. However, after 2 years of doing goal development in this manner, we realized that it was the job of the leadership team to provide guidance on what defines success for each project. To keep our team members engaged with our process, we present each goal as a draft and encourage active participation in the refinement process. Our objective is to present the draft of the operational plan to the team, including the draft project goals, 1 month before the start of the fiscal year.

Refine

The refine step is another opportunity for the team to have input in the operational planning process. During this step, the draft of the operational plan and the goals for each project are presented at a team meeting. Team members are able to provide feedback to the leadership team with regard to the appropriateness of the plan and the individual project goals, the possible overlap of the project end points, and any potential missing key elements. This discussion typically occurs 2–4 weeks before the start of the next fiscal year.

Assign

Although the leadership team has been discussing potential project assignments starting with the ruminate phase, the assignments are not disclosed to team members until this later step. When making assignments, the leadership team keeps several things in mind. First, as described previously, we look at the overall project plan and make sure that each team member has at least one project, while ensuring that no team member has more than he or she can handle. Based on skill and the specific team member's experience with past projects, the leadership team has an understanding of the volume and complexity of projects that any one person can handle. Second, we use the operational projects as a method to promote employee growth. As we evaluate the total plan, the leadership team tries to identify projects that will teach a new skill set to a particular team member. This identification of projects is based on past performance and varies by employee. For example, when we hire a new employee, we look for comparatively simple projects, such as the rollout of new hardware, which teaches the employee about project planning, large-scale organization, and departmental layout. Midcareer employees are assigned more complex projects on the basis of their prior performance. For example, an employee who has not yet shown mastery of a larger project is assigned implementation of a smaller and/or contained system such as a tumor tracking software system. Once the employee shows mastery of a minor system, he or she is tasked with implementation or an upgrade of a major system such as the PACS. Typically, the first time that an employee is assigned to a major project, he or she is paired on the project with our technical lead. In this sense, the rising employee gets to act as an apprentice and learns all of the details that are needed to upgrade a major system. Our most seasoned employees are often assigned multiple major projects. These employees have already proven that they have the organizational skills to manage these projects and lead the planning and oversight of other team members. Finally, when making assignments, we look at the plan in total to make sure that no employee has multiple time-critical projects with project completion dates near each other. In this sense, we are trying to ensure that each team member can focus on his or her projects at critical times. The assign step is completed approximately 2 weeks before the start of the fiscal year.

Plan

After team members are assigned projects, their first step is to build a project plan. The project plan is a detailed description of all of the events that will be used to complete the project (19,21,22). The level of detail included in the project plan depends on the complexity of the project. A simpler project may only require 20 tasks, but a more complex project can have several hundred tasks, including multiple phases that are dependent on other tasks (Fig 5). The team's project manager helps the employees to organize the plan and build its first draft. Note that there are a number of different project management strategies that one could use (ie, agile or waterfall). Although these strategies provide a framework for a project manager, they play less of a role in our operational planning process and are thus beyond the scope of this article.

It is important to note that a project plan will often grow in complexity as the project unfolds.

Status	Task Name	Quar...	Start	Finish	Assigned To	Durati...	% Complete
	PROJECT GOALS AND SUCCESS MEASURES (type in the box below)						
	Goal 1) Evaluate existing diagnostic monitors and make decision on replacement, Goal 2) If decision is to replace monitors, document requirements and test potential replacement monitors, Goal 3) If replacement option found, submit PO by the middle May, 2016.						
	Tip: Type applicable quarter number in the "Quarter" column to automatically set row color.						
	Diagnostic Monitor Replacement						
	Evaluate existing monitors	Q1	08/03/15	09/11/15		30d	100%
	decision on need for replacement	Q1	07/31/15	07/31/15		1d	100%
	Determine requirements for new monitors (configuration, models, etc)	Q2	10/19/15	11/27/15		30d	100%
	Investigate having vendors evaluate our existing monitors	Q2	10/19/15	11/27/15		30d	100%
	Evaluate replacement monitor options at RSNA 2015	Q2	11/27/15	12/02/15		4d	100%
	Onsite demos for radiologist evaluation	Q3	12/14/15	03/14/16		66d	100%
	Contact vendors evaluated at RSNA, Finalize (our) demo requirements and solicit vendor specs.	Q3	12/14/15	01/04/16		16d	100%
	Work with Alex to plan evaluation process (simultaneous evaluation or individual, survey online or paper, etc.)	Q3	01/11/16	03/14/16		46d	100%
	Finalize demo selection and scheduling for selected vendors	Q3	01/04/16	02/05/16		25d	100%
	Evaluation criteria and requirements (on paper during demo)	Q3	01/11/16	03/14/16		46d	100%
	Setup onsite vendor demo monitors per earlier decision (set up studies and process for rads)	Q3	02/01/16	03/14/16		31d	100%
	Radiologist evaluation of potential monitors	Q4	03/14/16	04/04/16		16d	100%
	Record radiologist comments and opinions and generate a final decision survey.	Q4	03/14/16	04/04/16		16d	100%
	Decision on replacement monitor vendor	Q4	04/25/16	05/13/16		15d	100%
	Work out budget, funding, contract issues with Sally and staff?	Q4	04/25/16	05/20/16		20d	100%
	Submit PO for 1/2 replacement monitors? (TBD with staff)	Q4	05/20/16	05/20/16		1d	100%
	Rollout plan for replacement - ? monitor shifting	Q4	05/20/16	06/30/16		30d	100%

Figure 5. Screenshot (from *Smartsheet.com)* shows one of our relatively simple project plans. Once a project is assigned, the project owner creates a project plan. The different colors on this screenshot highlight the work required within each quarter *(Q)* throughout the year. *PO* = purchase order, *RSNA* = Radiological Association of North America, *TBD* = to be determined.

We expect this evolution of the project plan and understand that the employee learns more about the project as he or she moves forward in time. Therefore, early in the year, we focus on the main steps of the project and trying to develop milestones. We define *milestones* as time-limited steps that must be completed for a project to progress (16). For example, milestones can be key decision points, such as whether to accept a version of a software application, or can be key tasks, such as completion of user training materials. Although the project plan may evolve as the project progresses, milestones stay fixed.

A project plan can be created by using a number of different project management or project planning software applications. Multiple tools are available, with varying degrees of sophistication. When our group was evaluating the software options, we looked for several features: the ability to view projects in either list mode or as a Gantt chart; the ability to build rules into different fields so that one action, such as selecting a check box, could trigger another action, such as changing the color of a row; the ability to attach source documents to the plan; and the ability to have our plans available in the cloud so that they could be shared easily both inside and outside our organization. We have found this last feature to be incredibly useful as we have worked with vendors. We often share our project plan with them so that they know what our team is doing and when.

Review

The first draft of each project plan is typically created within the first 2 weeks of the fiscal year. After this time, the team reviews the project plan and the milestones in one or two team meetings. During the team meeting, we discuss the milestones, paying particular attention to two things. First, we focus on the dates of the different milestones across the team and the likelihood that a milestone can be met. We have found that often team members set aggressive milestones. If we believe that a milestone is too aggressive, the leadership team will encourage the employee to push it back to a later date. Second, we look at the milestone task and make sure that it is suitable to be a milestone and that it truly represents a key point of the project. At times, we shift the milestone to a different point in the project that we believe better suits it.

Do

After each project plan has been approved, the team members begin working on their projects. This work happens in an appropriate time frame for each project and represents the major work effort for the year for the employee. The team's project manager helps the employees to organize meetings and acquire the resources needed to help the project to progress. Although the do phase is the longest phase of the process and lasts for the length of the project, it is not covered in

detail in this article. Each team member completes his or her project according to the specific project plan. The suite of projects is actively managed by the project manager and the leadership team, as detailed in the following sections.

Monitor

Throughout the project, the leadership team routinely checks the progress of the projects. We have found that this monitoring occurs best in two separate forums. Each month, we ask the project manager to attend the leadership team meeting, during which she reviews each project, describes any issues or roadblocks with any of the projects, and discusses how the employees are progressing toward their milestones. During these monthly meetings, we also discuss the employees and how they are leading the project. This discussion gives us an early opportunity to take corrective actions, if necessary. Finally, we discuss whether the leadership team is needed to either make a decision or help remove a barrier to progress.

The second type of check-in occurs on a rolling quarterly basis. During a team meeting, we focus on one individual's suite of projects and ask him or her to present an update to the team. Recently, we have added structure to this process and require the team members to use a specific format in their presentations. First, we ask the employee to state the overall goal of the project. This statement ensures that all of the team members know what we are trying to accomplish. Next, the employee is instructed to give an overall assessment of how the project is progressing. We ask him or her to rate it as either being on task (green), at risk (yellow), or unlikely to succeed (red). The third task is to describe the milestones completed and the upcoming project milestones. This discussion serves as a reminder of all of the work that the employee has already completed and the work that the employee still needs to complete. During this step, we ask that the employee provide an assessment of the likelihood that upcoming milestones will be completed on time. The fourth step is to describe upcoming tasks outside of milestones and recent accomplishments with regard to the project. Finally, we ask the employee to state any decisions that are needed or issues that are anticipated that will prevent the project from advancing. This last point is where the leadership team can intervene and help with the project's progression.

Assess

The assess phase typically occurs simultaneously with the monitor phase. During the monitor phase, we ask the project manager and the team members to assess the progress of their projects. Although their assessment is often correct, the leadership team makes a more formal assessment of the project. This more formal assessment is made while thinking about the entire project portfolio, the employee's past performance, and the quality of his or her current work. The leadership team uses a similar stoplight method of assessment. If the leadership team thinks a project is at risk, we plan a series of interventions that are scaled in their level of intrusiveness.

Typically, the first level of intervention is discussing the project with the employee in private and expressing our concern for the project. Often, during these discussions, we learn of barriers to the project that the employee was unwilling or embarrassed to mention in the group setting. Once these barriers are identified, the leadership team can intervene and help the project to get back on track. If a second level of intervention is needed, the leadership team will then ask the project manager to set up weekly progress meetings with the employee. During these meetings, the project manager will ask the employee detailed questions about the progress of the project with regard to the project plan. In these instances, we typically have found that the project plan is usually deficient in some way. Either it has not sufficiently evolved from the more basic plan developed at the beginning of the fiscal year, or it is not organized to progress logically. It is common that these meetings with the project manager help to produce a more detailed or more organized plan. After this step, if we find that the project is still not progressing, we discuss whether we need to assign another team member to the project to help it progress. Although this intervention is rarely needed, there are times when one project proves to be either more complex than originally thought or too overwhelming for the employee to whom it was assigned. In either case, a change is made to the project in a delicate manner so that the project can progress and the employee is not shamed.

Besides assessing the progress of the projects throughout the year, a more formal assessment is completed at the end of the fiscal year as part of our employee performance management process. Early in the year, the leadership team sets a team goal regarding the percentage of projects on the operational plan to be completed. The team goal is used with other individual goals to guide employee evaluations and merit-based pay increases. We have found that the group goal is an important motivator that encourages teamwork across multiple projects. At the end of the year, the leadership team evaluates each project, comparing its outcome with its predefined goals. Projects that

have met their goals are considered to be successful, and incomplete projects are considered unsuccessful for the time frame. In many instances, the incomplete projects are completed in the first month or two of the next fiscal year. Occasionally, a project cannot be completed owing to no fault of the project owner. This outcome typically occurs when a project has dependencies outside the department's sphere of influence. For example, the operational plan may call for a system upgrade. If the vendor is late in releasing the upgrade, the team may not be able to safely test and implement the upgrade in the time remaining. If this problem occurs, the project is not counted in the final tally for performance management, either as a numerator or denominator.

Celebrate

The most important part of every project is its completion. This step represents a major accomplishment for the employee, our team, and our department. As such, we strive to celebrate our employees' accomplishments. Celebrations can occur in many forums and through many methods. Our leadership team strives to celebrate our employees in their daily work throughout the year. We have found several methods of celebration to be particularly important: public celebration, project recaps, small team meals, and larger team parties.

We believe that public celebration can and should occur frequently. This belief means that we compliment our employees in team meetings, external meetings, department-wide e-mails, faculty meetings, and in one-on-one interactions with the employees themselves and with other departmental employees. We have found that a simple thank-you or recognition of hard work adds a sense of pride to an employee's job.

A project recap is an important tool that we use at the completion of most major projects, particularly system upgrades and "go-lives" of new systems. During a project recap, we attempt to cover the highs and lows of the project. This tool can be difficult to administer because most people tend to focus on the negative. To combat this negative focus, we ask each team member to think of what he or she learned from this project so that it can be applied to future projects. This question allows us to celebrate new thought processes or new methodologies and to ensure that they are celebrated across the team. The team leadership takes this question as an opportunity to reinforce good work processes. We purposefully start with the things that went well and attempt to fill more than half of the meeting with praise. When people start talking about items that could have been improved, we redirect them and ask them to focus on positive aspects of the project. After we have reviewed the positive aspects of the projects, we ask the team how the project could have been improved. We believe that there is power in learning from our mistakes. However, we make sure that these lessons learned remain about the project itself and not about the project owner. We only allow 10–15 minutes for this portion of the recap. Finally, the team leaders recap the meeting, focusing again on the positive traits of the project.

Small team meals are also a powerful way to recognize success. The leadership team tries to celebrate major accomplishments with breakfast or lunch at a team meeting. Then, instead of using the meeting to discuss issues, we use the meeting to socialize. The team bonding that occurs during these small meals allows the team to grow closer.

Finally, team parties are an important part of team bonding and team celebration. We try to hold at least two parties per year, both held outside the hospital setting. The first party is typically a business lunch, for which we take a shuttle to a nicer restaurant in the city and spend 2 hours enjoying each other's company. Taking this type of lunch break in the middle of the workday ensures that all of the team members will be able to attend the celebration. The second party is usually a dinner party, either at a restaurant or at the physician-leader's house. Similar to other dinner parties, this one again represents an opportunity to socialize outside the work setting.

Conclusion

In this article, we have presented our methodology for developing an operational plan. The operational plan is derived from the strategic plan, as well as the strategic priorities of the hospital and our department. The operational plan serves as a road map for our team members. Before we began operational planning, team members felt disconnected from the planning process. Although they were able to complete projects, they had no knowledge of upcoming projects, no input into the project selection process, and no input into the work that they were being asked to complete. We have attempted to design a process that maximizes employee engagement and empowers our employees at each step. As we build our operational plan, we strive to identify projects that will help the employees to grow and gain the skills that will enable them to be successful in future tasks. Through this process, we are able to complete 18–22 major projects successfully each year with a relatively small group of employees.

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