Process Mapping the Revenue Cycle

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At first blush, process mapping would seem to be nothing more than flowcharting. Actually, it *is* flowcharting—but with double the operational power: With process mapping, organizations create not only an "is" map, which is a flowchart that tells you where you are, but also develop a "should" map that tells where you want to go. Together, these two process maps can lead healthcare organizations to major improvements in the revenue cycle.

What makes process mapping so valuable? John "JT" Trusten, of Colorado-based organizational improvement company The Knowledge Webb, puts it this way: "Processes are the engine of your business. To achieve sustainable growth, you must be able to improve your processes, and that means understanding how they work.

"Process mapping allows you to identify productivity opportunities, best practices, and root causes of problems, create workflow consistency, and determine who owns an action item within the process and who's accountable for it."

Perhaps the best part is that process mapping can be applied to almost any process, big or small. "We typically use it for any high-volume, rules-based procedure," says Eric Burton, CFO of Hudson Headwaters Health Network in Glen Falls, N.Y. "One example in the billing cycle is copay collection; the process map lays out the detailed steps the receptionist is supposed to follow when a patient comes in with a self-pay balance."

At the other end of the spectrum, Rita Bowen, director of health information management at Erlanger Health System in Chattanooga, Tenn., is implementing one map for the entire revenue cycle, from scheduling through billing, to standardize processes in accord with their new information system. "Printed on engineering paper and taped to the wall, it practically goes around the room," she says.

Step by Step

Here, in a nutshell, are the basic steps in process mapping:

1. *Identify the critical business opportunity.* "If you're going to put 10+ key people in a room all day long, which is what it will take for most mapping exercises, there better be a darn good business reason for doing so—improving your ROI, for example," says Trusten. This step should be taken by the organization's financial leaders.

2. *Identify key processes with the greatest influence on that opportunity.* This will be either all or some of the key areas of revenue cycle management, such as patient access or charge capture.

3. *Create a project team.* Trusten recommends that you start by identifying the executive sponsor for the project, often the CFO, who will establish expectations and priorities, coach the team, break down any organizational barriers, and assume overall accountability.

4. *Do the "is" map prework.* Prework includes developing the business purpose or value proposition for the mapping project, defining the scope of the project, identifying subject matter experts who actually perform the steps in the process on a daily basis, and pinning down meeting logistics.

5. *Develop "is" map.* Once everyone meets and goals are communicated, the actual process of identifying process steps may begin. "You might say to the team of subject matter experts, 'OK, walk me through what occurs in the revenue cycle management process when someone has a lab test,'" says Trusten. "Start with admitting. Write each step on a Post-it® note and put it under the appropriate function on a large sheet of paper on the wall."

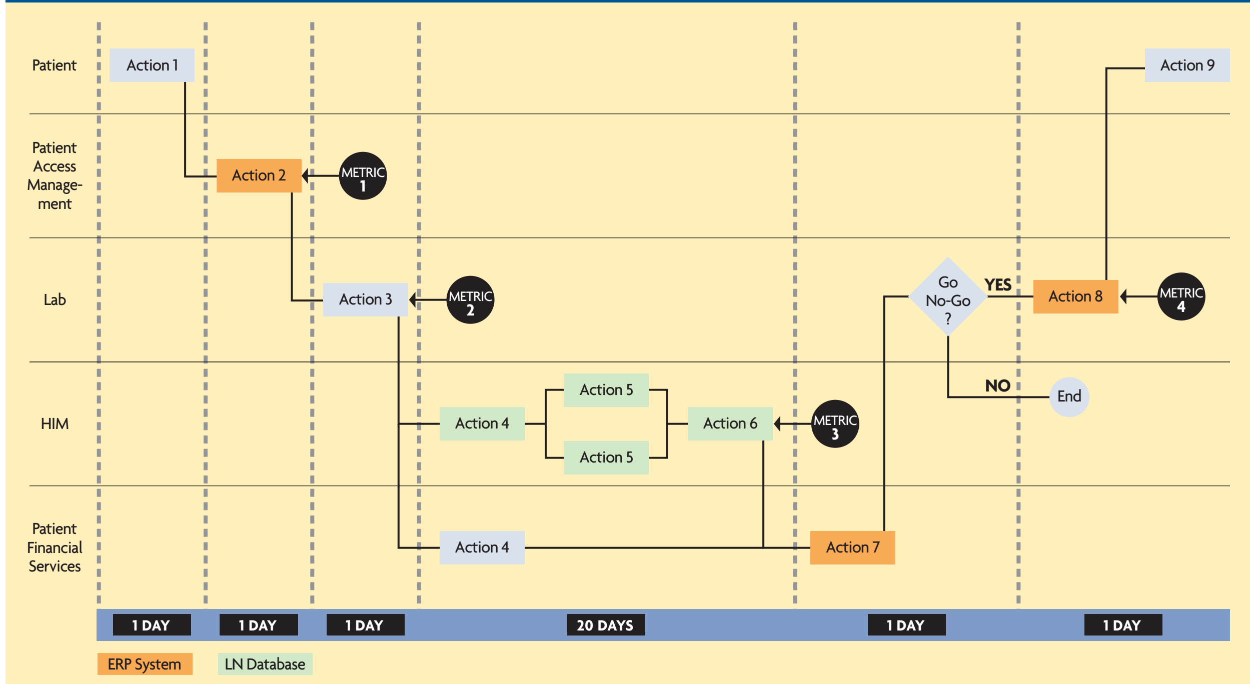
6. *Look for disconnects and opportunities.* This is where you put on your Sherlock Holmes hat. Areas with greatest potential for improvement typically include those with too many go/no-go decision points, too many feedback loops, duplication, non-value-added steps, role or authority ambiguity, bottlenecks, and places where you are misusing or, more likely, underusing the available technology. Why are we doing Step C? How is it different from Step J? Is there a different technology we could purchase to make that step easier or faster? These are the types of questions that typically arise at this stage. Make sure everyone involved with the process in any way has a chance to review and discuss the map that develops.

7. *Create the "should" map.* Validate your original value proposition: Are the purpose and outcome the same? All of the opportunities that you identified in the "is" mapping should be business requirements in the development of the "should" map. The map should also identify functional managers and best practices. In fact, many organizations prefer to start this step with a best-practice map and customize as they go along.

8. *Review, finalize, and distribute the "should" process map.* This should never be a cut-and-dried process, cautions Trusten. "You need to communicate the new vision and expectations, set new goals, and arrange for training. Have a plan for informing people about progress during implementation."

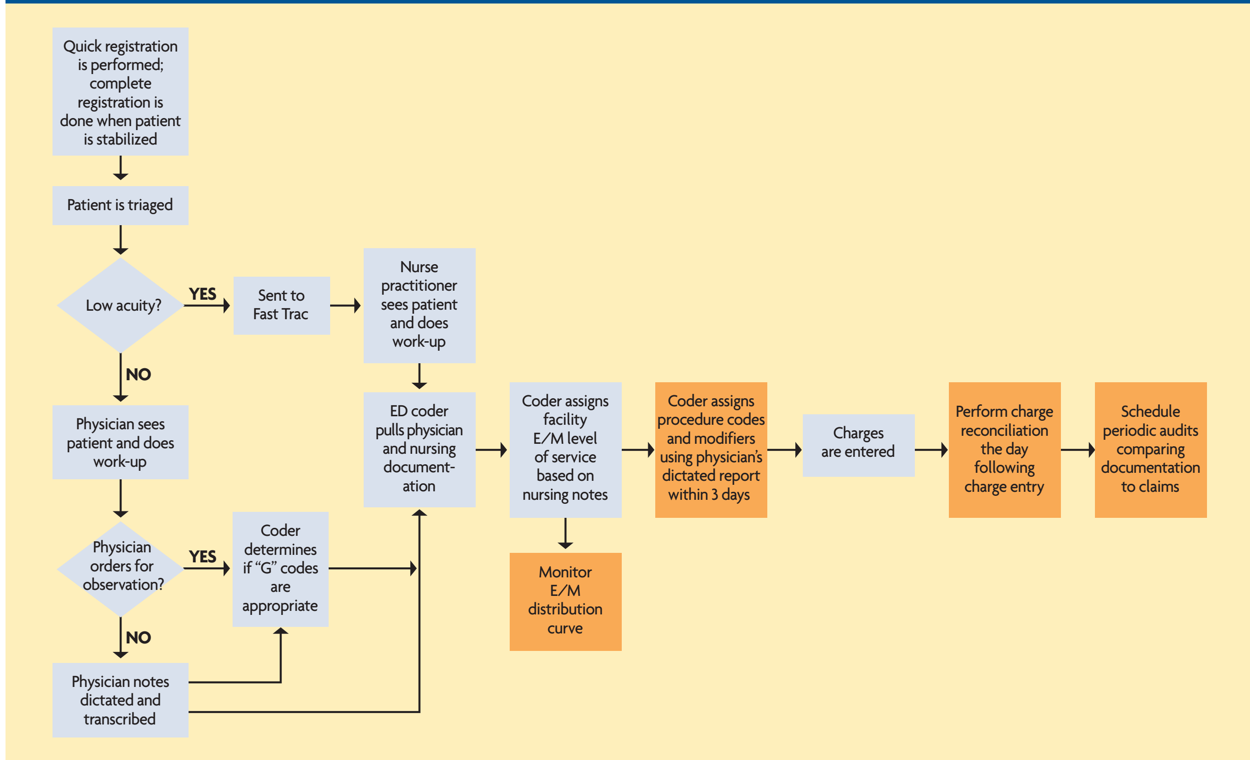
What if you can't get from here to there in one fell swoop? That's what "could" maps are for. For example, says Trusten, "If you don't yet have the technology to send reports automatically to patient access management each month, then set up a manual process for doing this—running the report and faxing it, for example—and map that."

Exhibit 1. Process Map Example with Accessories



Source: The Knowledge Webb. Used with permission.

Exhibit 2. Emergency Department 'Should' Map



Source: Erlanger Health System. Used with permission.

Different organizations use different forms of process maps, and this is fine. Six Sigma, for example, uses a particular kind of map. As shown in Exhibit 1 on page 3, one popular variation is a map that uses "swim lanes" to document where processes go back and forth between departments, which is very helpful in spotting rework or duplication. Basic flowcharting, as shown in Exhibit 2, also works well in most cases.

Who's Who

The best process maps are those generated by groups representing all of the areas that relate in any way to the process in question. That's because hospital departments tend to operate in silos, with everyone sure of what they themselves do and possibly even what the next area up or down the line does, but after that, it can get a little vague. Assumptions are often made about what happens to data once the data leave a department and people may not be aware of how their work affects other areas. Also, having everyone together in one room creates empathy, making it a little tougher for people to point fingers regarding disconnects or blithely assume someone else has time to take on extra work when a gap is identified.

The exact line-up will vary from hospital to hospital and project to project, but the following areas are frequently invited to take part in process mapping the revenue cycle:

- Scheduling, preregistration
- Registration verification
- Financial counseling
- Charge capture
- Documentation coding
- Bed control
- Billing
- Payment posting
- Account follow-up
- A/R management
- Contracting
- Medical records/Health information management
- Case management
- Utilization review
- IT
- Clinical areas (e.g., lab, ED, outpatient surgery)

It's equally important for people at all levels of the process to participate, including top managers and line staff. Trusten explains why. "If I ask a manager about the steps in the process, he or she might say, 'We do step A, then step B, followed by step C.' So far, so good. But if I ask the subject matter expert on the front line, he or she may say "I try to do step A; sometimes it works and sometimes it doesn't. If it doesn't, I have to make a call to resolve the problem. Sometimes I leave a message. Sometimes they call back. If I don't hear from them after a certain period of time, I try calling back. We can play telephone tag for quite awhile before I can move on to step B."

When it comes to "should" mapping, says Trusten, you still want the subject experts there but now the active participation of the functional managers is essential; only they can make key process change decisions and ensure a successful implementation. "When the HIM coder says 'Sure, I can do that task,' the HIM manager can say, 'There's no way on earth you're going to take on more work.'"

Among the most important interfaces when it comes to mapping the revenue cycle is the one between finance and information services (see "Promoting Collaboration Between Finance and Information Management"). How closely and how well these two areas work together has a major impact on the utility of the "should" map.

Promoting Collaboration Between Finance and Information Management

How well information and finance people work together on process mapping is, of course, a function of their larger relationship. Collaboration between the two groups is not a one-size-fits-all proposition. To Eric Burton, CFO of Hudson Headwaters Health Network in Glen Falls, N.Y., it's clear that manipulation and analysis of data should be housed in finance. "You look to the Information Services shop to spoon-feed the finance folks the data they need in a format they can use. For example, IS gives us a monthly download of a big revenue database and then finance staff works with those data."

At Mammoth Hospital in Mammoth Lakes, Calif., on the other hand, CIO Keely Ferguson is implementing a very different model, in which IT, which already had the information management systems in its bailiwick, will now have responsibility for the entire revenue cycle up to PFS, including charge entry, data support, and, indirectly, scheduling and registration. "Basically the idea is for us to get information up to billing as clean as possible, and then finance will take over. But IT will also be overseeing data quality, which will be auditing the entire process."

At many hospitals, the CIO reports to the CFO. Not at the Medical University of South Carolina. There, vice president and CIO Frank Clark, PhD, who is, on paper, a peer of the CFO, considers that he works *for* the CFO—and the chief academic officer, chief hospital administrator, and dean of the college of medicine, all his peers—as much as for the president.

"We in IT are enablers, supporters," says Clark. "We don't have our own agenda. Our agenda is the agenda of the enterprise."

Clark and Ferguson offer the following tips from the CIO's perspective on how to make the finance-IT collaboration a smooth one:

- Encourage IT people to form close, strong business relationships with their counterparts in finance.
- Encourage IT people to learn about the financial aspects of the organization to the extent possible.
- Encourage IT people to use the content language of finance instead of computer jargon.
- Try to recruit IT people who already have some experience, training, education, or understanding of the financial sector.
- Provide opportunities for people in finance to learn about basic IT concepts, such as databases, file structure, portals, and web access.
- Push IT people out into the organization; to the extent possible house them physically in and among finance staff.
- Include finance people in the IT governance framework. (For example, the Medical University of South Carolina has a finance and administration information council, for which IT provides staff support.)
- Always make sure you understand workflow and business processes first, before throwing technology at a problem.
- Use data as a neutral meeting ground to avoid exacerbating turf issues.

When Mercy Medical Center-Sioux City, Iowa, went live this past September with a new information system, Johnny S. Tureaud, director of Patient Financial Services, was looking at a massive process mapping job—mapping up to 100 new processes. Along with including various revenue cycle units and case management/utilization staff, he says it was imperative to have staff from information services in key roles on the committee since they had the best knowledge of system capabilities. "We had one of them lead the 'should' mapping sessions to help us identify ways to optimize the system's performance," he says. "She kept us from trying to do something the system couldn't do and pointed out areas where we could automate."

Measure Before, Measure After

It seems obvious that measuring is a way of determining if a process map is achieving its purpose: You have either brought A/R days below 60 or you haven't. But measuring is just as important in the "is" stage as it is during the "should" stage.

Mapping the revenue cycle makes it easier to see the links between critical steps, explains Patrice Spath, health care quality specialist at Brown-Spath & Associates in Forest Grove, Ore. "By measuring the performance of these critical steps you'll be able to identify the weakest links and begin to understand how they are constraining your system. Don't initiate process changes until you know your baseline performance and what kinds of results you would ultimately like to have."

Spath suggests the kind of measures that can be used to examine the organization's potential for improving the revenue cycle:

- Rate of insurance verification and authorization for preregistered patients
- Rate of insurance verification and authorization for unscheduled patients within one business day
- Rate of accurate and complete daily charge captures
- Rate of errors in billing and demographic information gathered during the patient registration process
- Rate of deposit collection prior to provision of outpatient services
- Percentage of Medicare patients admitted to observation status who would have qualified for inpatient status
- Percentage of self-pay patients evaluated for medical assistance eligibility

Tips for Implementing 'Should' Maps

- Implement changes that involve multiple departments and/or substantial resources and training incrementally: Start in one department, measure, refine, and move on to the next.
- Appoint a cross-functional project team to oversee implementation.
- Identify key milestones that have to occur and assign ownership to each.
- Develop timelines, and stick to them.
- Where possible, combine training of different departments involved in the same process—for example, cash posting, billing, and collections for denials management.
- When using new technology, observe the process in action to make sure it's being used appropriately.
- Revisit a map at least annually, sooner when you see deviations from target measurements, when trends in errors appear, when new technologies or new edits emerge, or when personnel or resources change.
- Consider employing an outside consulting firm for large-scale process overhauls. Such firms can provide a fresh perspective and knowledge of best practices based on experiences with other clients.

Once you have implemented the "should" map, Spath recommends establishing routine compliance audits for critical steps and sharing results with the pertinent departments. "Monitor revenue cycle productivity, data capture, and errors and compare your rates to external benchmarks," she says.

And once you've done that, keep doing it. Long-term monitoring, say the experts, promotes compliance with procedures, provides valuable feedback for front-line staff, and serves as an indicator when something is not working right.

Caution Ahead

The biggest challenge in process mapping is trying to keep the process realistic in terms of the technology that is actually available, according to Tureaud. "There's a temptation to use best-case design, which usually involves automating as much as possible," he says. "But unless you have a huge investment in technology, you're probably not going to be able to achieve that ideal state. Go for best practices when they're practical; when they're not, get as close as you can within the limits you have to work with."

Another challenge, says Tureaud, is simply the amount of time it takes to do it right—first finding the time, and second justifying it to leadership. "It's a major investment," he says. "You have both a direct expense, because you're paying people to participate, and an indirect expense, because you're taking those people out of productivity." If process mapping is new for the organization, you may need to go outside for data that demonstrate the value.

Meanwhile, various pitfalls loom to trip up the unwary:

- Jumping ahead to the fix while you're still doing the "is" map
- Forgetting to notify key people when policies, rules, or regulations change
- Failing to adequately educate new people
- Not allotting sufficient resources to get the job done (the importance of the executive sponsor)
- Making the map too detailed or not detailed enough
- Dealing with people at too high a level, who aren't immediately involved in the process

One of the most common errors organizations make is not adequately defining their goal(s) before they start process mapping, thus getting off track before the train starts. Often what occurs at such times is taking on more territory than necessary. For example, if you're concerned with the 72 edits that CMS (currently) applies, you will need to look at every part of the revenue cycle that might elicit one of those edits—which, essentially, means the entire cycle. But if you're trying to reverse a pattern of claim rejections due to improper inpatient/outpatient classification for planned surgical procedures, you may only need to map the surgical scheduling process to make sure that schedulers have access to the inpatient-only list of procedures, and know when and how to prompt physicians who are scheduling an inpatient-only procedure to provide an order to admit the patient as an inpatient at the same time.

Revenue Cycle Optimization

Process mapping can be key to revenue cycle optimization. By developing a better understanding of how revenue cycle functions are currently working and comparing these functions with improved practices, healthcare providers best position themselves to streamline processes, develop more effective process controls, and achieve sustainable improvement.

Process Mapping in Practice

See three case examples of how hospitals used process mapping to resolve specific revenue cycle challenges and actual tools they used at www.hfma.org/map_revcycle.

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