

Raymond D. Aller, MD, and Hal Weiner

The many facets of a laboratory IT budget

Creating an information technology budget for the laboratory may seem like a fairly straightforward, if painstaking, exercise. But a number of factors that can affect the laboratory's bottom line are frequently overlooked during the budgeting process, according to two health care consultants who spoke with cap today.

It's a given that budgeting should begin with establishing a baseline of technology assets, including people, equipment, licenses, and contractual obligations, but labs should pay particular attention to their lab information system and software interfaces, says Dick Taylor, MD, chief medical officer of MedSys Group and chief medical informatics officer of Geisinger Health System. "Interfaces are the lifeblood of the lab," he adds. "The questions you should be asking are, Which ones do you have, and which do you not have that you and your customers want? And, are you budgeted to manage the support and maintenance of those interfaces over time?" Equally important is updating the costs as technology assets are added and retired, Dr. Taylor maintains. "It costs to have an IT asset, but it also costs to retire it, because you may have to migrate data or change workflows. You may have a replacement, but that replacement may not work exactly the same way."

When budgeting for new software, laboratories tend to focus solely on the cost to purchase, install, and test a new system, says Dan O'Connor, vice president of client relations for Stoltenberg Consulting, a health care information technology consulting firm. "What often gets missed is related to the big picture of the organization. Is there a server that supports it [the new system]? Are there costs from a data center perspective? How about the costs of integrating that system with other systems that need that data, whether it's an EHR or another external system? And, who incurs the cost of all that testing that's done outside the lab? Is that project cost? Is it departmental cost? You need to think about and talk about those things when you're putting together a budget."

Other considerations related to updating or replacing information technology include changes to workflow, secondary equipment costs, and ongoing support costs, O'Connor points out. "From a training and development perspective, every time you're changing a piece of equipment, you have to look at how that affects the workflow within the lab. If there's four hours of training, that's four hours of lost productivity for those people, so there's costs associated with that." When budgeting for a new analyzer, "look at your operational side and make sure you're not purchasing reagents for the old equipment," he says. "Consider if the slides are the same; is there other media used for the new system that's the same or different? Look at your current inventory and figure out how the new system might affect that." Another factor that's often missed is the cost of maintenance agreements that continue after implementation, O'Connor notes, adding that these should be included and carried forward in the budget.

Understanding the difference between fixed and variable costs is key to maximizing the laboratory's return on IT investment, says Dr. Taylor. "If you have a portfolio of lab instruments, middleware, interfaces, and an LIS that's either part of or separate from the EMR, those costs are fixed, regardless of patient volume," he explains. "The only way to get rid of them is to retire assets or to decrease the portfolio of services offered. Too often, organizations view new assets [variable costs] through the same lens as they view fixed costs." Because fixed costs are difficult to reduce, organizations tend to first cut their variable costs—those related to discretionary projects—and in doing so "completely destroy investment in the future. Your variable costs are where you transform the organization and invest new money, so you need to be very clear that you can't cut variable costs without cutting the investment return."

That doesn't mean every discretionary project is worth the investment, Dr. Taylor notes. "Any discretionary project should have a demonstrable positive net present value, unless there's a benefit to patients or to the organization

that is strong enough to justify an ongoing deficit. Otherwise, if you can't figure out how it's going to be positive, then either you aren't counting it right or what you're doing doesn't make sense."

Keeping tabs on smaller projects is another key to smart investing. "If you start an interface, deliver it," Dr. Taylor advises. "Bring in the new test, integrate it, do the job fully, and complete it. Too many folks end up with a portfolio of things kind of half done. And that stuff is costing you money and delivering no value."

On a larger scale, understanding how the lab's budget fits into the hospital's overall budget is also critical "because hospitals and health care systems are political entities, as well as financial ones," says Dr. Taylor. The lab can better defend itself against across-the-board cuts, he adds, if it knows where it stands in the larger institution with regard to costs versus revenue generated. The more laboratory decision-makers know, he continues, "the more they can respond tactically to changes." —*Jan Bowers*

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NovoPath integrates software with Philips IntelliSite system

NovoPath announced that it has integrated its NovoPath anatomic pathology software platform with Philips' IntelliSite pathology solution and whole slide imaging system.

"Using the NovoPath AP LIS together with Philips' digital imaging solutions will provide lab managers and pathologists a top-of-the-line, integrated viewing and resulting solution of digitized slides," Rick Callahan, vice president of sales and marketing for NovoPath, said in a press release.

[NovoPath](https://www.novopath.com), 732-329-3209

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ONC offers tool to improve patient data collection

The Office of the National Coordinator for Health Information Technology has posted a tool on its website to help providers and payers improve the collection and exchange of patient demographic data.

The tool, called the Patient Demographic Data Quality Framework, "enables organizations to quickly assess the current state of data management practices, discover gaps, and formulate actionable plans and initiatives to improve management of the organization's data assets across functional, departmental, and geographic boundaries," according to the ONC. It includes 76 scorable questions that are designed to foster collaborative discussion within a health care organization.

The framework, available at www.bitly.com/PDDQ-framework, consists of five categories: data governance, data quality, data operations, platforms and standards, and supporting processes. A health care entity can implement any combination of the categories or any of 19 data-management process subcategories.

The tool focuses on patient data collection in a variety of areas, including laboratory, pharmacy, claims and billing, and patient registration. Its content is derived from the CMMI Institute's Data Management Maturity model.

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Inspirata purchases Artificial Intelligence in Medicine

Cancer informatics and digital pathology workflow solutions provider Inspirata has acquired Artificial Intelligence in Medicine.

"AIM has an outstanding group of NLP [natural language processing] engineers and data scientists as well as a solid leadership team that will remain in place and continue to focus on R and D and business growth," said

Inspirata CEO Satish Sanan in a press release. "This acquisition also establishes a solid footprint for Inspirata in Canada, allowing us to better grow our customer base to our north."

AIM develops and commercializes tools that use artificial intelligence and natural language processing to extract cancer-related information and data from pathology reports, molecular testing reports, treatment plans, and other documents.

[Inspirata](#), 813-570-8900

Upcoming LOINC conference

The Regenstrief Institute and LOINC Committee will hold a spring 2018 clinical LOINC conference in Salt Lake City, March 21-22.

The conference will combine a day of hands-on workshops with a public meeting of the Clinical LOINC Committee. LOINC is an extensive, standard coding system for identifying laboratory test results and clinical observations.

For more information or to register for the meeting, go to <https://conference.loinc.org>.

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