

CHAPTER

1

JANUARY

LEARNING OBJECTIVES

After reading this chapter, you should be able to

- Recite the massive amount of dollars that flow through the health care industry
- Describe the importance of health care financial management in America
- Explain the role and objective of health care
- Describe the twofold purposes of financial management
- Recognize the categories of providers that make up the health care industry
- Determine how a hospital finance administrator begins to operate within the structure of annual calendar of finance events
- Build a hospital pro forma financial statement in order to determine if a major project should be approved

“Daddy, what do you do all day at work?” the seven-year-old asks plaintively.

“What do you mean?” blinks Samuel Barnes, the daddy.

2 Fundamentals of Health Care Financial Management

"You know, like when you go out so early in the morning and then don't come back until after other daddies are already home. What are you doing? Why does it take so long?" asks the curly-haired tot.

Sam has to think for a moment. "Well, honey, that's a good question. I guess I'm out there trying to make the hospital I work for as successful as it can be."

"But what do you do?"

"Susie, I'm in charge of all the money that comes into the hospital. I'm also responsible for all the money paid out to the people who work there. I also make sure that all the other people who send us stuff that we use to make the sick people better, like food and medicine, get paid."

"Daddy, do you ever have any money left over after you pay these people?"

"Well, Susie, that's the whole point. To be successful, you want to have as much left over as you can."

"But what do you do with all that leftover money? Do you put it in the bank like I do with my allowance?"

"Well, sort of. But instead of putting it into the bank, we put it into a kind of bank that lends it out to other people who need money in their businesses. They then pay us back with a little extra money to thank us for letting them use our money for a while. That's called interest."

"So the hospital has all this leftover money and then you have even more money from these other people paying you interest. I'm glad that you work at a company that's making money because I heard on the news that some people were losing their jobs. I guess you or any of the people you work with won't lose their jobs."

"Actually, Susie, I wish I could tell you it was that clear-cut, but it's not. Part of my job is to make sure that the hospital makes as much money as we decided we wanted to make before the year starts. Sometimes that means we believe we will need less people working for us if we think less people will come to the hospital to be taken care of."

"But," Susie asks quizzically, "how can you know about all these things?"

"Ah, honey," he says, "that's a long story."

It is one minute past midnight on January 1. Outside, the New Year's revelers are just beginning their celebrations. Inside the bowels of the powerful computers of Ridgeland Heights Medical Center (RHMC), a fictional health care system, a different kind of ritual is taking place. At this moment, the automated pricing mechanism is executing its programming, effectively increasing the fifteen thousand or so charges related to individual services or supplies provided to patients. These increases, so carefully planned, are meant to help the organization improve its bottom line.

How these charges came to be, and why they are important, is only a small part of the story that constitutes the art of health care financial management. Financial management in practically any industry has its own policies, procedures, and practices. In most cases, generally accepted accounting principles (GAAP) and financial procedures require estimates and approximations based on the company's, and the estimator's, previous experience within the industry. This experience is often timeworn. Financial statements are produced month after month, year after year. Over time, most companies doing business in any industry report financial results in conformance with industry standards.

A standard is an approved or acceptable model as determined by an authority or by general consent. In the health care industry, standards represent the ability to properly report operating results for any particular period of time requested as well as the net assets of an organization.

For RHMC, the price increase, although not entirely desired by the organization's administration because of its possible negative public relations, is vital to its continued financial success. The size of the price increase is a function of change in volume, severity, and expense, all forecast and budgeted by the medical center. These changes are the result of strategic planning initiatives, newly planned services, shifts in the payer mix, and demographic fluctuations. They are also related to expense increases or decreases projected as a result of the change in volume. And finally, they are related to the community's perception of the health care organization's specific pricing for individual services and total cost of care.

This book examines these issues and many more. To begin to understand health care financial management and many of its key components, we must build a framework from which to operate. This framework takes the form of a diary and a primer. It chronicles a year in the life of one health care institution and one health care financial administrator. It explores how this organization, the board of directors, and the clinical and financial executives go about making decisions and how these

4 Fundamentals of Health Care Financial Management

decisions are then implemented. It further explores the organization through the natural life cycle of the institution, day by day and month by month, just as a real institution operates.

This book offers practical and informative points on health care decision making, usually from the financial point of view. In the end, the objective is to create greater understanding of *how* the industry operates on a detailed financial level and *why* it must do so. Our fictional medical center, Ridgeland Heights, was chosen because its bed complement of 256 falls in the range of a great many hospitals in the United States today. According to *Health, United States, 2006*, a recent edition of the annual compilation of U.S. health care statistics published since 1993 by the National Center for Health Statistics (NCHS) of the U.S. Department of Health and Human Services (HHS), of the 36.9 million admissions to all hospitals in 2004, some 6.9 million were made to hospitals in the range of 200 to 299 beds. When you add up the admissions of hospitals in the range from 100 to 399 beds, the result is 19.4 million, 53 percent of all admissions (NCHS, 2006, tab. 100). Consequently, this book is representative of more than half of the typical hospitals in the country.

Before we begin to explore health care financial management systems and techniques, it is necessary to first define some terms.

WHAT IS HEALTH CARE?

Health care is the field concerned with the maintenance or restoration of the health of the body or mind. This may seem obvious, but maybe it's not. The health care industry currently encompasses much more than just hospitals and doctors. Although together they are associated with the majority of industry expenditures, a considerable number of other reputable health care providers make up the remainder. Figure 1.1 shows the current breakdown of expenditures within the health care industry.

It is important to recognize the breadth of this nearly \$1.9 trillion industry. The health care industry is huge and has grown that way in the most dramatic fashion over the past four decades, really starting its climb in 1966 with the advent of the Medicare and Medicaid programs. These programs are explored in greater detail in Chapter Four. However, suffice it to say here that they opened the floodgates of money to the industry. At the time the programs began, the industry absorbed 5.7 percent of the gross domestic product (GDP) in the country (NCHS, 2006). GDP is the market value of goods and services produced within the United States. In the thirty-seven years 1996–2003, health care's percentage of GDP grew to 15.9 percent, an astonishing 279 percent

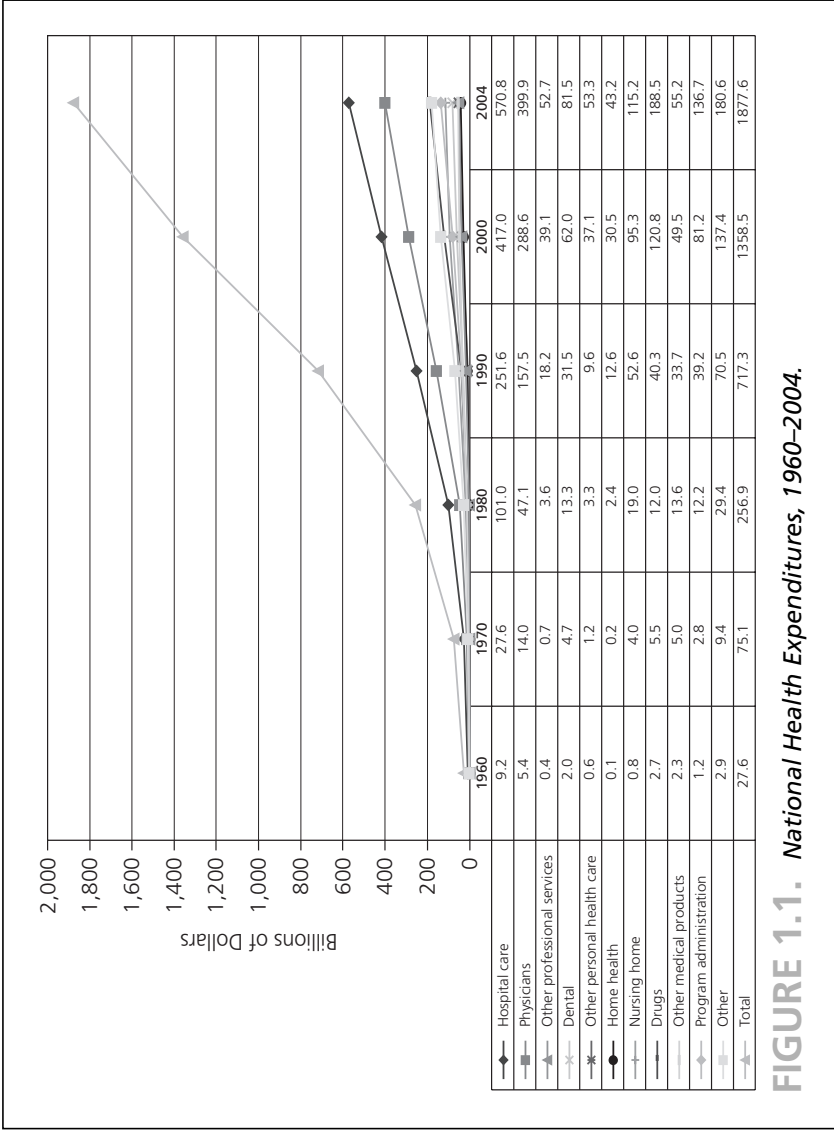


FIGURE 1.1. National Health Expenditures, 1960–2004.

Source: NCHS, 2006, tab. 123.

6 Fundamentals of Health Care Financial Management

increase (NCHS, 2006). This means that as a nation, we have decided, either by intent or accident, to expend a considerable amount of additional national resources and wealth in the pursuit of our health. Not only is health care now the largest industry in America, but it is growing at a rate greater than general inflation, meaning that it will be absorbing an ever-greater percentage of GDP as time goes by.

It is also important to note that the 15.9 percent of U.S. GDP absorbed by health care leads the industrialized world by a large margin. The next five highest countries are Switzerland at 11.5 percent of GDP going toward health care, Germany at 11.1 percent, Iceland at 10.5 percent, Norway at 10.3 percent, and France at 10.1 percent (NCHS, 2006). So significantly more is spent on health care in the United States than anyplace else in the world. There are many reasons for this. First, Americans have more discretionary income than anyone else and have chosen to spend some of it on health care. Second, Americans have been trained since the end of World War II to expect unlimited treatment for illness. This training has come from organized medicine—defined as the American Medical Association, the American Hospital Association, the American College of Surgeons, and many more groups. Health care is big business, and major administrative services have sprung up to handle the load.

Figure 1.1 highlights the financial scope of the health care industry. As noted, it is almost \$1,900,000,000,000—that's a lot of zeros. It is estimated that by 2008, the industry will be spending well over \$2.4 trillion. This means that tremendous resources are available to the companies that service patients—and tremendous opportunities. This money should be consumed in pursuit of the best possible outcomes, offered in the most consumer-friendly way and at the least possible cost. This is the role and objective of health care. The financial manager plays a large role in trying to achieve these outcomes through involvement and leadership in budget planning and reporting, charge setting, contract negotiations, and general financial consulting to the organization's department managers.

WHAT IS MANAGEMENT?

Before looking for a definition of *financial* management, it is important to define *general* management. In most for-profit, investor-owned firms, management's overarching objective is to maximize the owners' or shareholders' wealth. To accomplish this goal, management has been assigned certain roles and responsibilities, involving the skills of leading, planning, organizing, coordinating, motivating, and controlling. In the case of the health care industry, an overwhelming majority of

hospitals and skilled nursing facilities are classified as not-for-profit through section 501(c)(3) of the Internal Revenue Code. Still, even though their employers are not-for-profit, health care industry managers should be required to produce the best possible bottom line. They simply need to do so in the context of providing optimal patient care outcomes in the most efficient and satisfying manner.

In the for-profit world, “management must administer the assets of the enterprise in order to obtain the greatest wealth for the owner” (Berman, Weeks, and Kukla, 1994, p. 4). Therefore, management’s goal is to find the combination of earnings and risk associated with producing those earnings that yields the highest possible value.

In the not-for-profit world, earnings or profits are called margin. In the case of both for-profit and not-for-profit health care firms, the profit or margin is what remains after expenses, or costs, are subtracted from revenues. To reiterate, the role of management is to produce the best possible financial outcomes while minimizing risk to the organization. Not-for-profit health care providers place a somewhat greater emphasis on social goals than for-profit providers, but in the end, management’s success or failure—as defined by each organization’s board of directors—is primarily related to the quality of its bottom line.

WHAT IS FINANCIAL MANAGEMENT?

Financial management can now be defined as strategizing the organization’s financial direction as well as the performance of its day-to-day financial operations.

Therefore, financial management has a dual purpose. The first is to determine the strategic financial direction of the organization. This function is usually performed at the executive level of the financial ladder by the chief financial officer (CFO). The primary job is to prepare and present the organization’s strategic financial plan to the board for endorsement and approval. In many organizations, this job may also include the treasury function, which is charged with investing the organization’s financial assets in the most prudent manner as set down in board-approved investment policies.

The second purpose is management of day-to-day financial operations. The organization’s second-in-command finance officer, often called the controller, usually carries this out. This function means making sure that the payroll and the suppliers are paid and that the revenues generated by the operation are billed out in an accurate and timely manner and collected efficiently with a minimum of write-offs.

Financial management has a role within the overall context of general management. Sound financial management aids the general managers in carrying out their management responsibilities. According to Berman, Weeks, and Kukla (1994), “Financial management tools and techniques can aid management in providing the community with quality services at least cost by furnishing the data that are necessary for making intelligent capital investment decisions, by guiding the operations of certain hospital subsystems, and by providing the systems and data needed to monitor and control operations” (p. 4).

Making data available and helping analyze the financial implications of the information across the health care organization’s setting are therefore the primary roles of financial management. Financial management involves the finance staff in a number of highly visible and important matters:

- Setting prices for the services provided (often called gross charges). In recent years, this has also meant that these list prices have to bear some resemblance to cost if the hospital wants to be able to defend its practices within the context of “transparent pricing,” a trend that has taken on considerable importance in the eyes of consumer groups and in many cases the state and federal governments.

- Producing and analyzing the discounts (often called contractual allowances) taken by a third-party payer—defined as anyone other than the patient who pays for the patient’s services. The large third-party payers are Medicare, Medicaid, and hundreds of managed care organizations (MCOs)—often called health maintenance organizations (HMOs), preferred provider organizations (PPOs), or point-of-service organizations (POSs)—all across the country.

- Recording and analyzing cost information across the organization and at the department level. This involves comparing actual costs to budgeted costs and determining variance analysis; it may also involve a detailed cost accounting program.

- Preparing and reporting financial projections to help successfully guide the organization in its future endeavors. A short-term projection of up to a year into the future is called a budget, and a long-term projection of two to five years into the future is called a strategic financial plan.

WHY IS FINANCIAL MANAGEMENT IMPORTANT?

Financial management has a primary and a secondary role in the financial health of the health care organization. Its secondary role is reporting financial results periodically, usually monthly. Its primary role, however,

is as a broker of information. The people who control the information usually have quite a bit of power in any organization. The finance division of most organizations, and in most industries, has generally been the storer and reporter of information.

No organization can achieve success without the proper financial information on which to base its decisions. The whole purpose of having and using information is to make the most appropriate decisions. Making decisions is every manager's number one priority. Making the *proper* decisions is a function of experience and appropriate information.

Also, keep in mind that there is a significant difference between information and raw data. Data streams inundate most managers all day long. Raw data are often useless, and sometimes harmful, in the process of making the best decision. The value of information is that it brings *context* to the data, presenting them in a format that enhances a manager's ability to understand what is happening and to make a good decision.

Management has been described as the art of making decisions under uncertain and difficult conditions. Thus financial management can be said to be important because, if applied properly, it maximizes the operating manager's ability to make difficult yet good decisions in the face of uncertainty by presenting information in the best possible format. In addition, it allows the finance division to maximize reimbursement (net revenue) for the health care organization. (This is covered in Chapter Four.)

Michael Nowicki (2004) provides a good description of the six major objectives of health care financial management, in addition to the accounting and reporting functions, which he identifies as the following:

1. To generate income
2. To respond to regulations
3. To facilitate relationships with third-party payers
4. To influence method and amount of payment
5. To monitor physicians
6. To protect the organization's tax status

RIDGELAND HEIGHTS MEDICAL CENTER: THE PRIMARY STATISTICS

Ridgeland Heights Medical Center is a (fictional) medium-sized medical center in a northern Chicago suburb. For IRS purposes, it was classified as a community, not-for-profit hospital under Internal Revenue

Code section 501(c)(3) because of its charitable mission, dating back to 1925. In addition to its current complement of 180 acute care medical and surgical beds, it also has a 20-bed maternity unit, a 22-bed Medicare PPS-exempt psychiatric unit (“PPS-exempt” means that it is not subject to Medicare’s prospective payment system), a Medicare-certified home health agency (HHA) and hospice, and a 30-bed hospital-based skilled nursing facility (SNF).

Ridgeland Heights also owns ten primary care physician practice sites, which employ thirteen full-time physicians. This practice is managed through a corporate-affiliated management services organization (MSO), which also manages six nonowned primary care physician practices.

In addition, RHMC is half owner of a physician hospital organization (PHO), the other half owned by an independent practice association (IPA), a group of physicians legally organized to negotiate contracts with managed care organizations. The PHO negotiates contracts on behalf of both the medical center and the IPA. In many instances, this is well received by the managed care companies because of its time-saving and cost-reducing principles.

Volume indicators are critical to understanding any institution. A volume indicator generally defines the level of financial viability. RHMC provides both inpatient and outpatient services. Table 1.1 highlights the inpatient volumes for the year just ended as well as the current budgeted year.

Although the medical center always received a majority of its gross revenues from its inpatient services, the 11,000 or so inpatient admissions are now dwarfed by more than 180,000 outpatient services each year. (See Table 1.2 for the analysis.)

This development brought a series of unexpected consequences to the medical center. Although the administration had for several years talked about redefining its service lines to be somewhat more aligned with the outpatient business, it had not yet done so. The continuing decline in the inpatient census coupled with outpatient increases drove the powers that be to complete plans for a renovation and expansion, primarily for improved and updated outpatient and physician services. At the same time, the medical center decided to take some dramatic action with regard to its dwindling inpatient census.

Managed Care Inroads

Over the past few years, managed care companies have made significant inroads into RHMC’s primary and secondary service areas. In

TABLE 1.1. 2007 Actual and 2008 Budgeted Inpatient Volumes, Ridgeland Heights Medical Center.

	Admissions			Patient Days			Length of Stay		
	Number of Beds	2007 Actual	2008 Budget	2007 Actual	2008 Budget	Percentage Variance	2007 Actual	2008 Budget	Percentage Variance
Medical and surgical	120	2,700	2,800	13,000	14,000	7.7	4.81	5.00	3.8
Intensive care	24	1,800	1,900	6,500	7,220	11.1	3.61	3.80	5.2
Pediatrics	10	600	660	1,500	1,716	14.4	2.50	2.60	4.0
Maternity	24	2,000	2,200	4,000	4,400	10.0	2.00	2.00	0.0
Births	26	1,950	2,145	3,900	4,290	10.0	2.00	2.00	0.0
Psychiatric	20	1,000	1,200	6,500	8,160	25.5	6.50	6.80	4.6
Skilled nursing facility	30	800	840	8,800	8,400	(4.5)	11.00	10.00	(9.1)
Totals	254	10,850	11,745	44,200	48,186	9.0	4.07	4.10	0.7

TABLE 1.2. 2007 Actual and 2008 Budgeted Outpatient Visits, Ridgeland Heights Medical Center.

	2007 Actual	2008 Budget	Variance (%)
Emergency department	19,000	20,000	5.3
Outpatient surgery	4,500	5,000	11.1
Same-day surgery	3,700	4,000	8.1
Observation patients	1,950	2,000	2.6
Home health services	26,000	30,000	15.4
Other outpatients	112,000	120,000	7.1
Totals	167,150	181,000	8.3

doing so, these companies have brought with them a utilization review philosophy that generally reduces access to care to those beneficiaries covered by insurance. This is not by accident. Employers, who usually foot the bills for employee medical insurance, grew tired of the seemingly never-ending round of double-digit premium increases each year throughout the 1980s. When old-style indemnity insurance, which generally paid the health care providers (hospitals, physicians, skilled nursing facilities, home health agencies, and so on) failed to reign in these increases, employers turned to managed care companies.

These companies claimed they could control the rate of premium increases using a series of strategies that would reduce both the number of health care provider contacts and the intensity of the services received. Here is a summary of the cost control strategies used by managed care companies:

Utilization Controls

- Preauthorization of necessity (before approval for service)
- Second opinion, to determine need for service or alternatives

- Concurrent review and case management of continuing service necessity during a hospital stay
- Quality management programs, monitoring treatment type and duration for outpatient services
- Patient outcome research, to determine the efficacy of new clinical services

Reimbursement and Payment Controls

- Minimizing level of payment to service providers through tough negotiation
- Approval of payment methodologies that minimize provider incentives to continue treatment
- Imposition of patient copayment to discourage use of services

RHMC's Actions to Counter Dwindling Inpatient Census

The rate of decline in the inpatient census was alarming to RHMC's administrators. They recognized that the decline in the inpatient census was partially causing an increase in lower-paying outpatient services. Still, to maintain viability as a full-service, stand-alone medical center, the administrators knew that admissions had to be increased. There were only a few ways to do it:

1. Steal market share from other service providers (always an option in any business in any industry; the secret is not in the trying but in the succeeding). This could be attempted in a number of ways:
 - Improved consumer marketing or more of it. Historically, this is not the most effective means. Health care is an industry that has always resisted consumer marketing because referral is generally through a physician, or more recently through managed care contractual coverage.
 - Improved physician marketing or more of it.
 - A better mix of clinical services. This would be a much more effective strategy given the reasons that previous marketing strategies have not worked. A health care organization that can meet the demands of physicians and payers, as well as managing its costs, is likely to survive and thrive in the current climate of downsized institutions.

2. Grow market share by providing services that are not being offered in the service area. This could mean being on the leading edge of technology (a potentially expensive place to be) or assessing the local market through focus groups and surveys to determine the current needs, wants, and desires of the community. An example is complementary or alternative care services, as mentioned earlier in this chapter.

3. Grow market share by recruiting additional physicians at RHMC and encouraging physicians who practice at more than one hospital to practice exclusively at RHMC. This could be accomplished through enhanced service lines, upgraded or new technology, and joint venturing on ambulatory care centers (surgery, rehabilitation, imaging) that will drive increased market share.

RHMC Decision Time

Through its administration, RHMC decided to try a mix of solutions. It would perform more targeted marketing and advertising to highlight services where it already had a substantial clinical advantage as well as services that it wanted to build on. Yet the RHMC administration understood that the concept of target marketing and advertising in health care is complex because it is difficult to identify the decision makers who ultimately purchase the service. For instance, is it the patient, the patient's family, the physician, the insurer, or someone else? The answer is, it depends on the particular health care service. Thus the administration intended to proceed carefully.

In addition, the medical center planned to build new services, particularly outpatient surgeries and services, which appear to be where industry growth will be greatest. Finally, it would put some of its limited financial and intellectual resources into developing more advanced clinical services (often called tertiary services) to differentiate itself from some of its other community-based, nonacademic teaching facility competitors.

Financial Management Implications

Almost every decision made by the health care organization's administration has implications for financial management. The intended consequences should be anticipated and desired at the time the decision is made. There will also be unintended consequences, unforeseen results that seem to occur no matter how carefully the decision is made. In light of these realities, the finance division is expected to present the most

appropriate *conservative* estimate of the likely projected financial results. This usually means producing what is called a *pro forma*, a projected income statement incorporating all known assumptions. This should be done using assumptions that represent best-case, worst-case, and most likely scenarios.

PRO FORMA DEVELOPMENT

Developing pro formas is extremely important to the financial well-being of the organization. A pro forma is usually performed when the organization is planning to develop a new service or acquire any type of equipment, the capital cost of which exceeds some internally generated amount of money. It is also usually performed in conjunction with the organization's strategic plan. This book goes into some detail on the concepts of strategic plan, strategic financial plan, capital goods, and capital budgeting in Chapter Three, but for now let's assume that RHMC always performs pro forma analysis for all capital acquisitions costing more than \$500,000.

Net Present Value and Internal Rate of Return

The art of pro forma development is best described as the ability to assemble a series of assumptions that lead to a go or no-go decision with respect to capital acquisition. This is generally accomplished by having the final result of the pro forma produce either a net present value (NPV) or internal rate of return (IRR) for the project.

NPV is defined as the present value of the future cash inflow of an investment minus the investment's cash outflow. Whereas NPV measures a project's dollar profitability, IRR measures a project's percentage profitability, or its expected rate of return (Gapenski, 1996). The computation summarizes quite a number of assumptions into a single percentage that has value for the decision maker. The organization may well have a "hurdle rate," established for its IRR for a new project. This is defined as the minimum percentage return that the organization expects to achieve through funding the project. The hurdle rate reflects the percentage return on its investment that the organization wants to realize. It is a function of the amount of interest income it could earn if it were to invest in the stock or bond market and the additional risk associated with the volume and rate projections used in the pro forma. By concluding a pro forma with an IRR, it is easy, at a glance, to determine whether the hurdle rate has been exceeded, thus giving the decision maker the appropriate information with which to make the go or no-go decision.

The reason for establishing a hurdle rate and internal rate of return involves money (that is, the capital resources used to pay for all purchases, whether operating expenses or capital expenses). Money, the organization's capital, is scarce. There is always a list of conflicting priorities to be funded. Therefore, it is imperative that any health care organization establish its own hurdle rate, know why it is doing so, and adhere to it to stay financially viable into the future.

Volume Assumptions

The most important feature of pro forma development is the “validity” or best-guess nature of the assumptions. The *most sensitive assumption* in any pro forma is that of *volume*. Absolutely no other assumption drives the bottom-line result as much as volume, because volumes drive three of the four essential elements of the income statement (gross revenue, net revenues, and variable expenses). The only element that it does not primarily control is fixed expenses. The age-old question is always how to verify, how to validate, or simply how to believe that the volumes being proposed are achievable in the future for a service that has never been performed at the organization in the past.

Various methods can be used to construct a best guess for volume. But again, because it is in the future, there is no guarantee that it will be achieved.

A good example of volume uncertainty and its potential validity can be seen in a pro forma that was developed at RHMC three years prior to the January of our discussion. The medical center decided it would make good clinical sense to install a magnetic resonance imaging (MRI) device, a highly sophisticated diagnostic radiology tool costing \$1.75 million for the machine and another \$250,000 for construction of the MRI suite. Up to that time, whenever physicians ordered MRI tests for patients, RHMC staff had to load the patients into an ambulance (at a cost of \$60,000 a year) to be taken to an MRI provider twenty minutes away. An in-house unit would give better patient satisfaction and better physician satisfaction as a result of faster turnaround time on results. But it was the responsibility of the finance division to determine whether or not it would be a good financial investment.

Working with the radiology department manager, RHMC's finance manager developed a series of assumptions (see Table 1.3). The radiology manager contributed the all-important verifiable volumes, while the finance manager developed the information on gross and net revenue. Volume is the most important number on the page because both revenues

TABLE 1.3. Pro Forma of Proposed MRI Service: Financial and Volume Assumptions, Ridgeland Heights Medical Center, July 2005.

CAPITAL COSTS (\$)		2006	2007	2008	2009	2010	Total
Equipment (MRI)*	1,750,000						
Construction, renovation*	250,000						
Total	2,000,000						
VOLUMES		2006	2007	2008	2009	2010	Total
Inpatient		350	371	393	417	442	1,973
Outpatient		1,610	1,707	1,809	1,918	2,033	9,076
Total volumes		1,960	2,078	2,202	2,335	2,475	11,049
Total per day		8.00	8.48	8.99	9.53	10.1	
Charge per test		1,200	1,260	1,323	1,389	1,459	

(Table 1.3 continued)

REVENUE

Inpatient	420,000	467,460	519,939	579,276	644,705	\$2,631,379
Outpatient	1,932,000	2,150,820	2,393,307	2,664,390	2,965,349	\$12,105,866
Total revenues	\$2,352,000	\$2,618,280	\$2,913,246	\$3,243,665	\$3,610,054	\$14,737,245

PAYER MIX (%)

Medicare	34.20	35.00	35.50	36.00	37.00	
Medicaid	3.80	4.00	4.20	4.40	4.60	
Managed care	26.80	30.00	33.00	36.00	39.00	
All other	35.20	31.00	27.30	23.60	19.40	
Total payer mix	100.00	100.00	100.00	100.00	100.00	

CONTRACTUAL ALLOWANCES (%)*Inpatient*

Medicare	100.00	100.00	100.00	100.00	100.00	100.00
Medicaid	100.00	100.00	100.00	100.00	100.00	100.00
Managed care	55.00	55.00	55.00	55.00	55.00	55.00
All other	10.00	10.00	10.00	10.00	10.00	10.00

Outpatient

Medicare	60.00	60.00	60.00	60.00	60.00	60.00
Medicaid	80.00	80.00	80.00	80.00	80.00	80.00
Managed care	35.00	35.00	35.00	35.00	35.00	35.00
All other	15.00	15.00	15.00	15.00	15.00	15.00

(Table 1.3 continued)

FREE CARE (%)
All other

Inpatient	0	0	0	0	0	0
Outpatient	12.00	14.00	16.00	18.00	20.00	
INPATIENT CONTRACTUAL (\$)						
Medicare	143,640	147,000	149,100	151,200	155,400	
Medicaid	15,960	16,800	17,640	18,480	19,320	
Managed care	61,908	69,300	76,230	83,160	90,090	
All other	14,784	13,020	11,466	9,912	8,148	
Total inpatient contractual	236,292	246,120	254,436	262,752	272,958	

OUTPATIENT CONTRACTUAL (\$)

Medicare	396,446	405,720	411,516	417,312	428,904
Medicaid	58,733	61,824	64,915	68,006	71,098
Managed care	181,222	202,860	223,146	243,432	263,718
All other	102,010	89,838	79,115	68,393	56,221
Total outpatient contractual	738,410	760,242	778,693	797,143	819,941
TOTAL CONTRACTUAL (\$)	974,702	1,006,362	1,033,129	1,059,895	1,092,899
FREE CARE (\$)	81,608	93,346	104,540	113,183	115,056

*Useful life: 5 years.

and expenses are driven by it. In this case, the volumes were developed from two sources, one internal and one external.

The internal source was the number of MRI scans that RHMC was already sending to the outside provider annually. This number had great validity because it was historical. The external source was vendor-generated (usually suspect because the vendor is trying to sell its product). It consisted of the average number of MRI scans that should be needed at the medical center based on the number of current diagnostic radiology tests being performed. The vendor backed up the figures with a number of years of research. It is usually difficult to validate this type of claim, but it is important to try, particularly if the health care organization is considering spending \$2 million. A survey of RHMC physicians most likely to order MRI scans can be used to validate the reasonableness of the vendor projection. In addition, external benchmarks of user rate per existing radiological procedure are available to help validate the projections.

Revenue and Expense Assumptions

Other aspects of the pro forma become almost as critical to ultimate success or failure of the venture. In this case, the published price per scan (the gross charge) needed to be set at a prevailing market rate, so various individuals performed “secret shopper” phone calls to other MRI providers within a thirty-mile radius. This helped the finance manager set prices for the types of scan performed by the MRI machine that should maximize the return to RHMC and be acceptable to the community.

Maximization of net revenue is a function of the number of Medicare, Medicaid, and managed care patients expected and in what percentages of the total. This is important because none of these payers reimburses the organization by its set price. Instead, Medicare and Medicaid mandate what they pay (no negotiations, thank you very much), while each managed care payer attempts to negotiate the lowest price that the provider is willing to accept.

Direct variable expenses for this new service are purely a function of volume. The number of employees, also known as full-time equivalents (FTEs), who must be hired is a function of the number of scans expected to be performed and the amount of time it takes to perform the tests. Because staffing costs generally account for most of cost of providing a service, it is useful to project conservatively (that is, anticipate a lower volume).

Fringe benefits are always a significant expense in any pro forma that has staffing expenses. There are two ways to reflect fringe benefits. One is to determine the exact cost. Fringe benefits are commonly represented by these items:

- Old-age survivor and disability insurance (OASDI) withholding, which is also known as Social Security
- Medicare Part A trust fund withholding
- Medical, dental, and life insurance
- Short- and long-term disability
- Pension expense
- Tuition reimbursement
- The value of sick, vacation, and holiday time off

The only amounts easily quantifiable are these:

- OASDI, which the federal government has set at 6.2 percent of an employee's gross wages, with a cap (\$97,500 in 2007)
- Medicare Part A trust fund, set by the federal government at 1.45 percent of an employee's gross wage, without a cap

All other fringe benefits are much harder to quantify, if only because none of them are paid for as a percentage. Instead, they are all employee-specific, with criteria such as sex, age, family size, and employment longevity as factors.

Therefore, a second method to reflect fringe benefit cost on a pro forma is generally preferred and used. This is as a percentage of gross salary. Health care organizations differ in the percentage used to represent their particular institution. RHMC has settled on a 30 percent rate, which is reflective of its experience over a period of several years. Exhibit 1.1 shows an analysis of the fringe benefit rate.

The results, shown in Table 1.4, are presented in financial statement format with an IRR calculated over a five-year period. IRRs are easily calculated by any popular brand of electronic spreadsheet—a real time saver because the assumptions change constantly throughout the process. The 25.92 percent IRR seen in Table 1.4 is above RHMC's hurdle rate of 14.0 percent. Thus this project was accepted because it exceeded the hurdle rate and was going to improve customer satisfaction and make testing more efficient for the on-site clinical staff.

EXHIBIT 1.1. Analysis of Fringe Benefits Percentage, Ridgeland Heights Medical Center.

1A. OASDI at 6.2% of gross salary (up to a maximum of \$97,500 in 2007)		6.20%
1B. Medicare Part A trust fund at 1.45% of gross salary (no maximum cap)		1.45%
2. Non-FICA fringe benefits:		
Total non-FICA fringe benefit costs	\$4,600,000	
Total gross salaries	\$36,000,000	
Non-FICA fringe benefit percentage	12.78%	12.78%
3. Staffing replacement fringe benefits—average allowable days off:		
Sick	8	
Holiday	6	
Vacation	10	
Total allowable days off per year	24	
Total paid days per year	260	
Staffing replacement fringe benefit percentage	9.23%	9.23%
Total fringe benefits as a percentage of gross salaries		29.66%

Convinced that this was a worthwhile project, the medical center administration recommended it for approval to the finance committee of the board of directors, which approved it. But as with all major projects, the finance committee wanted to track the investment over time. It required that projects costing more than \$1 million be brought back to the committee annually for review.

So the finance manager, through finance staff, prepared an actual profit-and-loss statement for this program on an annual basis. The report was prepared in January 2007 so that at the February finance committee meeting, the CFO could present this second annual report on the MRI program that went live two years earlier, in January 2005. The results are presented in Table 1.5. As can be seen, this new clinical program is performing acceptably on the basis of financial return, doing better than budget on the bottom line in its first two years.

TABLE 1.4. Proposed MRI Service: Pro Forma Statement of Revenues and Expenses, Ridgeland Heights Medical Center, July 2005.

	2006	2007	2008	2009	2010	Total
REVENUES (\$)						
Gross revenues	2,352,000	2,618,280	2,913,246	3,243,665	3,610,054	14,737,245
Less: Contractual allowances	974,702	1,006,362	1,033,129	1,059,895	1,092,899	5,166,987
Less: Free care allowances	81,608	93,346	104,540	113,183	115,056	507,732
Net revenues	1,295,690	1,518,572	1,775,578	2,070,587	2,402,099	9,062,526
EXPENSES (\$)						
Variable Expenses Salaries						
2.0 Technicians	90,000	94,500	99,225	104,186	109,396	497,307
1.0 Clerical	27,000	28,350	29,768	31,256	32,819	149,192
Total salaries	117,000	122,850	128,993	135,442	142,214	646,499

(Table 1.4 continued)

Fringes @ 30%	35,100	36,855	38,698	40,633	42,664	193,950
Medical supplies	150,000	172,500	198,375	228,131	262,351	1,011,357
Reduction of ambulance cost	(60,000)	(63,000)	(66,150)	(69,458)	(72,930)	(331,538)
Total variable expense	242,100	269,205	299,915	334,749	374,299	1,520,268
Fixed Expenses						
Cryogens	35,000	36,750	38,588	40,517	42,543	193,397
Equipment maintenance contracts	-	115,000	120,750	126,788	133,127	495,664
Utilities	60,000	63,000	66,150	69,458	72,930	331,538
Legal and accounting (incl. billing)	40,000	42,000	44,100	46,305	48,620	221,025
Insurance	60,000	63,000	66,150	69,458	72,930	331,538
Office supplies	10,000	10,500	11,025	11,576	12,155	55,256

Marketing	100,000	105,000	110,250	115,763	121,551	552,563
Facility lease	200,000	210,000	220,500	231,525	243,101	1,105,126
Interest	—	—	—	—	—	—
Miscellaneous	10,000	10,500	11,025	11,576	12,155	55,256
Total fixed expense	515,000	655,750	688,538	722,964	759,113	3,341,364
TOTAL CASH OUTFLOWS (\$)	757,100	924,955	988,453	1,057,713	1,133,412	4,861,632
Net cash inflows or (outflows)	538,590	593,617	787,125	1,012,874	1,268,688	4,200,894
Less: Depreciation expense	400,000	400,000	400,000	400,000	400,000	2,000,000
Net operating profit or (loss)	138,590	193,617	387,125	612,874	868,688	2,200,894
Internal rate of return (\$)						25.92%
IRR (2,000,000)	538,590	593,617	787,125	1,012,874	1,268,688	

TABLE 1.5. MRI Service: Annual Statement of Revenues and Expenses, Ridgeland Heights Medical Center, January 2008.

	2006 Budget (\$)	2006 Actual (\$)	Variance (%)	2007 Budget (\$)	2007 Actual (\$)	Variance (%)
REVENUES						
Gross revenues	2,352,000	2,418,000	2.8	2,618,280	2,983,500	13.9
Less: Contractual allowances	974,702	1,056,062	8.3	1,006,362	1,226,784	21.9
Less: Free care allowances	81,608	76,549	-6.2	93,346	106,054	13.6
Net revenues	\$1,295,690	1,285,389	-0.8	1,518,572	1,650,662	8.7
EXPENSES						
Variable expenses salaries						
2.0 Technicians	90,000	93,456	-3.8	94,500	97,434	-3.1
1.0 Clerical	27,000	25,555	5.4	28,350	27,654	2.5

Total salaries	117,000	119,011	-1.7	122,850	125,088	-1.8
Fringes @ 30%	35,100	35,703	-1.70	36,855	37,526	-1.80
Medical supplies	150,000	146,667	2.20	172,500	151,434	12.20
Reduction of ambulance costs	(60,000)	(60,000)	0.00	(63,000)	(63,000)	0.00
Total variable expense	242,100	241,381	0.30	269,205	251,048	6.70
Fixed expenses						
Cryogens	35,000	36,567	-4.50	36,750	37,550	-2.20
Equipment maintenance contracts	—	—	n/a	115,000	115,000	0.00
Utilities	60,000	60,000	0.00	63,000	63,000	0.00

(Table 1.5 continued)

Legal and accounting (incl. billing)	40,000	40,000	0.00	42,000	42,000	0.00
Insurance	60,000	60,000	0.00	63,000	63,000	0.00
Office supplies	10,000	12,100	-21.00	10,500	13,212	-25.80
Marketing	100,000	90,000	10.00	105,000	100,000	4.80
Facility lease	200,000	200,000	0.00	210,000	210,000	0.00
Interest	—	—	n/a	—	—	n/a
Miscellaneous	10,000	9,875	1.30	10,500	9,996	4.80
Total fixed expense	515,000	508,542	1.30	655,750	653,758	0.30
TOTAL CASH OUTFLOWS	757,100	749,923	0.90	924,955	904,806	2.20

Net cash inflows or (outflows)	538,590	535,466	-0.60	593,617	745,856	25.60
Less: Depreciation expense	400,000	400,000	0.00	400,000	400,000	0.00
Net operating profit or (loss)	\$138,590	\$135,466	-2.30	\$193,617	\$345,856	78.60
Volumes (number of tests)	1,960	1,860	-5.10	2,078	2,210	6.40
Gross revenue per test (\$)	1,200	1,300	8.30	1,260	1,350	7.10

LIVING WITH THE FINANCE COMMITTEE AND BOARD OF DIRECTORS' CALENDAR

An important aspect of proper health care financial management is understanding the information needs of the people who are the ultimate decision makers in any organization, the board of directors. This is true whether the organization is set up as a taxable or a nontaxable entity. The board sets the policy direction for the organization, which is then carried out by the administration through its management team.

The board and its standing committees expect and require certain information, in a certain format, presented at committee meetings held at specified intervals. It is essential that delivery of the information expected by the board be accurate and timely. Many health care organizations have a calendar, published before the year begins, specifying which topics are discussed throughout the year.

The board of directors' finance committee has specific authority in and responsibility to the organization, enumerated in the bylaws of the organization; for example:

- Present to the board for approval an annual budget consistent with the medical center's plan for providing care to meet patient needs
- Present a long-term capital expenditure plan to the board for approval
- Review monthly and quarterly reports on financial matters
- Review and approve the budget of any special project or committee, when appropriate
- Annually review the sources of funding for the organization in conjunction with preparation of the budget
- Recommend independent auditors for the medical center

RHMC's finance committee meets periodically to carry out its responsibilities. Exhibit 1.2 presents the finance committee calendar for the center. In addition to the routine matters that are brought forth at every meeting, the calendar clearly defines the topics to be formally reviewed in a defined time frame. As can be seen, the RHMC finance committee meets every other month except March, which is special because of an additional meeting dedicated solely to the organization's strategic financial plan. Every organization determines its own preferred timing between meetings. Common intervals are monthly, bimonthly, and in some cases, quarterly.

Each item the finance committee requires to be reviewed is important, if only because the committee members are on the governing board, and this information aids in conducting their fiduciary responsibility.

EXHIBIT 1.2. Annual Finance Committee Agenda, Ridgeland Heights Medical Center.

Routine Agenda Items, Every Meeting		Chapter in This Book
1. Approval of minutes		
2. Financial statement review, including review of financial ratios		2
3. Accounts receivable update		5
Bimonthly Standing Agenda Items		
February	1. Bond debt status	2
	2. Health insurance annual review	2
March	3. Strategic financial plan	3
April	4. Results of annual audit and management letter review	4
June	5. Human resource report, salary budget decisions	6
	6. Pension status and actuaries report review	6
August	7. Review next year's budget assumptions	8
	8. Annual materials management, inventory level review	8
October	9. Finalize and approve operating and capital budgets	10
	10. Review progress toward management letter comments	10
December	11. Review malpractice insurance coverage	12
	12. Review and approve auditors and fees	12
As-Needed Items		
	1. Information system plans	10
	2. Investment opportunities	

Routine Matters

There are several items that the RHMC finance committee reviews at each meeting. The most important are the monthly financial statements. Although the committee meets every other month, it still receives individual monthly financial statements for review. At the meeting, the most recent financial statement is reviewed, and the prior statement is mentioned only if some event warrants discussion. Preparation and review of the financial statements by the finance division are discussed in Chapter Two.

The other routine item presented at every meeting is an analysis of the organization's accounts receivable. Accounts receivable is often the largest current asset in a health care organization and has the most significant impact on daily cash flow. Smaller is considered better because any organization would much rather have cash assets to invest instead of non-interest-bearing receivables. Accounts receivable practices are discussed in Chapter Five; the all-important accounts receivable ratio, which is the number of days of revenue represented by the receivables, is discussed in Chapter Three.

The finance committee is primarily interested in the calculation of number of days of receivables, how this figure compares to recent months, and how it compares to the budget, in order to judge the performance of management. The committee is also interested in the amount of bad-debt write-off and whether or not it should be considered excessive. Finally, with respect to receivables, the committee is interested in the aging of the various open balances to judge whether management is allowing accounts to grow too old to collect.

Periodic Review Matters

As can be seen from Exhibit 1.2, a number of areas are subject to periodic review by the finance committee. Each item, its importance, and the implications for financial management are discussed elsewhere in this book. For the moment, though, the real importance to financial managers is that they are expected to produce reports and information that allow the members of the governing board to pursue their duties. The periodic review calendar allows the financial managers to plan out their upcoming year, knowing the schedule they are required to keep.

YEAR-END CLOSING

At the same time the finance managers are preparing for the next finance committee meeting in February, they are engaged in one of the two most onerous tasks they are required to perform each year: the year-end closing. (The other is the budget process.) Although the regular monthly closing becomes routine, the year-end closing always requires an extraordinary amount of effort. This is because an outside accounting firm audits the financial books and records of the organization, and so the year-end balance takes on added importance.

Preparing for the auditors is an arduous and time-consuming task, particularly if the organization has not performed ongoing account analysis throughout the year. The auditor's job is to validate the transactions that are reflected in the client's financial statements—in this case, Ridgeland Heights Medical Center. Because it is the auditor's role to determine that the financial statements “present fairly, in all material respects, the financial position (balance sheet) of [the organization], as well as the results of the operations, changes in net assets and cash flows for the years then ended, in conformity with generally accepted accounting principles (GAAP),” the auditors need to examine the underlying transactions (American Institute of Certified Public Accountants, 2006, p. 117).

Therefore, the finance staff of RHMC needs to give the auditors a series of analyses for every balance sheet account, listing by category and date the transactions made as well as the other side of each entry. If the staff performed this throughout the year, the task would be less onerous. However, many organizations have trouble maintaining and updating these analyses monthly and thus are required to re-create their annual transactions in a short time frame (say, within thirty days). This is necessary because most administrators and boards require the audit to be complete and the auditor's report to be presented to the board within a short time period (two to three months) after the close of the fiscal year.

The staff and accounting director at RHMC do a better job than some of their peers and therefore do not face so great an obstacle in finishing their task. Still, the accounting director has created a list enumerating the tasks that the department faces in January and part of February (see Exhibit 1.3). This consumes most of the staff time during these two months.

EXHIBIT 1.3. Year-End Accounting Procedures, Ridgeland Heights Medical Center, December 31, 2008.

Financial Statement Account Name	Chart of Accounts Name	Procedure	Due Date
Cash	Petty cash accounts	Verify balances are correct	1/16/08
	Accounts payable, checking	Complete December and all prior-month reconciliation; adjust G/L balance accordingly	1/16/08
Payroll	Payroll, checking	Complete December and all prior-month reconciliation; adjust G/L balance accordingly	1/16/08
Investment	Money market sweep	Tie out to bank statement	1/16/08
	Unrestricted investments	Tie out to month-end investment schedule; adjust valuation allowance so all investments are stated at market value; verify that balance in unrealized gain/loss account is proper	1/19/08
	Trusted investments	Tie out to investment manager statement; verify that balance in unrealized gain/loss account is proper	1/16/08
	Endowment fund	Tie out balance to statement; adjust for interest if necessary; verify that balance in unrealized gain/loss account is proper	1/16/08

***Patient accounts
receivable***

Patient posted cash	Reconcile G/L balance to cash summary from patient accounts; adjust if necessary	1/20/08
Accounts receivable	Complete December reconciliation of accounts receivable trial balance to the general ledger; adjust if necessary	1/12/08
Refund clearing	Determine validity of balances; verify refunds issued in January; reclassify to liability section	1/16/08
Contra A/R, in-house and discharged, not final billed	Record adequate contra accounts receivable reserve to reflect accounts receivable at net realizable value	1/16/08
Allowance for doubtful accounts (bad-debt reserve)	Test reserve by applying approved percentage allowances against appropriate aging category of receivables; recommend adjustment for appropriate aging category of receivables; recommend adjustment for excess/shortage of reserve requirement	1/12/08

***Other accounts
receivable***

Credit card clearing	Verify that the G/L balance represents December charges not yet reimbursed	1/16/08
Collection agency clearing	Reconcile balances to collection agency statements; follow up on outstanding items	1/16/08

(Exhibit 1.3. continued)

<i>Inventory, prepaid, deferred costs</i>		
Pharmacy inventory	Adjust balance to physical inventory	1/16/08
Dietary inventory	Verify G/L balance per inventory schedule	1/16/08
Central supply inventory	Verify G/L balance per inventory schedule	1/16/08
Prepaid insurance	Review schedule of all policies for completeness and accuracy; determine prepaid amount remaining at year end; adjust G/L if necessary; tie out amortized amount in 2007 per schedule to insurance expense on the income statement	1/14/08
Bond issues	Verify balances to amortized schedules; analyze actual bond issue costs paid and compare to estimate of bond issue costs used for amortization schedule; investigate differences; adjust if necessary	1/14/08
Annual financing costs	Verify zero balances—all 2007 costs should be expensed; balance only if amount prepaid for 2008	1/14/08

**Fixed assets,
depreciation**

1/26/08

Fixed assets

Reconcile December plant ledger reports to G/L, both by fixed asset category and in total; recommend adjustments and/or reclassification, if necessary; make all necessary adjustments for disposal of fixed assets; tie out net of all disposal adjustments to gain/loss in disposal on the income statement

Construction in progress

1/20/08

Verify that all completed projects have been included in fixed assets at year end; validate balances in CIP as ongoing projects that have not been completed at year end

Depreciation reserve

1/26/08

Reconcile plant ledger reports to G/L, both by fixed asset category and in total; recommend adjustments and/or reclassification, if necessary

**Accounts payable,
accrued expenses**

Accounts payable

1/16/08

Reconcile subsidiary ledger to general ledger

Accrued accounts payable

1/16/08

Update schedule identifying balance in detail; determine propriety of accruals at year end; recommend adjustment if necessary

(Exhibit 1.3. continued)

Security deposits	Agree to schedule maintained by Facilities Department	1/16/08
Accrued payroll	Determine if any adjustments are necessary due to void or any other reason	1/20/08
Interest payable	Verify payable balance includes current year expense for all bond issues not paid as of year end; tie out annual expense to debt schedules	1/16/08
Accrued pension	Verify balance against actuarial report; adjust if necessary	1/20/08
Accrued malpractice	Test against 12/31/07 malpractice insurer report; round balances due to estimate	1/16/08
Unemployment compensation	Adjust balance to estimated liability at year end based on historical claims; prepare schedule supporting calculation	1/16/08
Workers' compensation	Determine necessary accrual based on WC agent's estimate of future claims and estimate of future liability based on unreported claims	1/16/08

Third-party reserves	Determine adequacy of reserves and realizability of receivables; adjust if necessary	1/16/08
Current retirement of long-term debt	Agree current portion for all bond issues to debt schedules; adjust, if necessary	1/16/08
Bonds payable	Agree amounts payable for all bond issues to debt schedules	1/16/08
Unamortized bond discount	Agree unamortized discount for all applicable bond issues to amortization schedules	1/16/08

Long-term debt



PRACTICAL TIPS

- Develop a hospital policy stipulating that there must be pro forma financial statements for all capital projects or equipment that exceed a predetermined dollar amount.
- Do not skimp on the amount of time spent developing the volume assumptions for any plan (such as a pro forma, strategic financial plan, or budget). Volume affects most of the important financial elements of these plans.
- Develop an annual calendar of events for the board of directors' finance committee so that specific agenda items will be discussed in a routine manner at each committee meeting.



DISCUSSION QUESTIONS AND ACTIVITIES

1. Discuss how the health care industry's share of GDP affects the overall economy. Is too much money being spent for health care? Can America continue to spend this amount (or more) without sacrificing other areas of the economy? Why is it that we spend so much more than any other nation on earth?
2. Build a pro forma for a much needed hospital capital project or capital equipment. Be sure to spend the appropriate amount of time to validate the volumes. Finish the analysis with an internal rate of return or net present value conclusion.
3. Review the items in Exhibit 1.2, and determine which have the greatest opportunity for adjustments by the auditors. What can the finance staff do to reduce or eliminate audit adjustments?