CHAPTER 1

Financial Management in Context

No matter where you are in the healthcare finance arena, there are opportunities to move things forwards, to act, to resist complacency, to refuse to allow yourself to think that things won’t ever change. As finance professionals we all have strengths that will serve our organizations well in these times of change.

Debora Kuchka-Craig, 2011 HFMA Chair

Learning Objectives

After completing this chapter, you should be able to do the following:

➤ Understand the purpose of healthcare organizations.

➤ Relate the purpose of healthcare financial management to the purpose of the organization.

➤ Understand the objectives of healthcare financial management.

➤ Apply quality assessment to healthcare financial management.

➤ Apply organizational ethics to healthcare financial management.

➤ Examine the value of healthcare financial management to the management functions and the changing face of healthcare.

➤ Review background accounting, economics, and statistics information (Appendices 1.1, 1.2, and 1.3).
**Introduction**

Successful organizations, whether they be for-profit, not-for-profit, or governmental, have two things in common: a congruent and well-understood organizational purpose, and a functional management team. The purpose of this introductory chapter is to describe financial management in healthcare organizations within the context of organizational purpose and a competent management team.

**Organizational Purpose**

Organizational purpose is often determined by the owner. While a community-owned, not-for-profit healthcare organization’s purpose is to provide healthcare services to the community, a corporate-owned (via stockholders), for-profit healthcare organization’s purpose is to provide profit for the owner.

By necessity, most organizations have more than one organizational purpose. For instance, even though a not-for-profit healthcare organization’s purpose is to provide healthcare services to the community, the organization must survive economically—meaning that it must generate sufficient revenue to offset expenses and allow for growth. A for-profit healthcare organization’s purpose is to provide profit for the owner; however, the organization must meet the customer’s needs—meaning it must keep the physicians, patients, employers, and insurance companies satisfied.

Most healthcare organizations also have secondary purposes—for example, many government-owned healthcare organizations provide large-scale medical education programs.

To maintain congruence, the management team must communicate the organizational purpose or purposes not only to the employees, but also to owners, customers, and other important constituents. When multiple purposes are present, the management team must prioritize the purposes.

**Healthcare Management**

In its broadest context, the objective of healthcare management is to accomplish the organizational purposes. Doing so is not as simple as it sounds, especially if the healthcare organization’s purposes are “to provide the community with the services it needs, at a clinically acceptable level of quality, at a publicly responsive level of amenity, at the least possible cost” (Berman, Kukla, and Weeks 1994, 5). Healthcare managers must identify, prioritize, and often resolve these sometimes-contradictory purposes in a political environment that involves the organization’s governing board and medical staff; in a regulatory environment that involves licensing and accrediting agencies; and in an economic environment that involves increasing competition, resulting in demands for lower prices and higher quality.

Competent healthcare managers attempt to accomplish the organizational purposes by planning, organizing, staffing, directing, and controlling (called the management functions).
and by communicating, coordinating, and decision making (called the **management connective processes**). For more information on the management functions and connective processes, see *Dunn and Haimann’s Healthcare Management* (2010).

With the exception of nursing home administrators, no licensure requirements are needed to be a practicing healthcare manager. However, facility-accrediting organizations such as The Joint Commission require healthcare managers to possess such education and experience as required by the position. Moreover, formal educational programs for healthcare management do exist at both the undergraduate and graduate levels. Undergraduate programs can seek program review and approval from the Association of University Programs in Health Administration. Graduate programs can seek program review and accreditation from the Commission on Accreditation of Healthcare Management Education. Furthermore, healthcare managers can seek membership and certification in professional associations, including the American College of Healthcare Executives (ACHE), which has more than 31,000 members, more than 8,500 of whom are certified as Fellows of the American College of Healthcare Executives (FACHE) (ACHE 2010).

The purpose of healthcare financial management is to provide accounting and finance information that assists healthcare managers to accomplish the organization’s purposes. No licensure requirements are needed to be a practicing healthcare financial manager. Facility-accrediting organizations such as The Joint Commission rarely provide requirements for healthcare financial managers; they often hold the organization’s chief executive officer (CEO) responsible for financial management.

Formal educational programs for healthcare financial management are not common and usually exist as postgraduate certificate programs. The chief financial officers of most large healthcare organizations possess a master’s degree in business administration, a bachelor’s degree in accounting, and a certificate in public accounting and have healthcare experience. For formal continuing education and certification in healthcare financial management, healthcare financial managers can seek membership and certification in healthcare professional associations, including the **Healthcare Financial Management Association (HFMA)**. HFMA has over 35,000 affiliates, including 782 Certified Healthcare Financial Professionals and 1,666 certified as Fellows of the Healthcare Financial Management Association (FHFMA) (Etheridge 2010).

**Accounting**

Accounting is generally divided into two major areas: financial accounting and managerial accounting. The purpose of financial accounting is to provide accounting information, generally historic in nature, to external users, including owners, lenders, suppliers, the government, and insurers.
Accounting information prepared for external use must follow formats established by the American Institute of Certified Public Accountants (AICPA) and other, similar organizations and must follow generally accepted accounting principles used for standardization. The 1996 *AICPA Audit and Accounting Guide for Health Care Organizations* (AICPA 1996) established four basic financial statements that hospitals should prepare for external users: a consolidated balance sheet, a statement of operations, a statement of changes in equity, and a statement of cash flows.

AICPA released a new audit guide in August 2009 that included guidance on the following issues:

- Financial Accounting Standards Board accounting standards, including an update on the hierarchy of generally accepted accounting principles
- An omnibus change to the consolidation and equity method guidance for not-for-profit organizations
- Determining fair value when the volume and level of activity for the asset or liability have significantly decreased
- Interim disclosure about fair value of financial investments
- Recognition and presentation of other-than-temporary impairments
- Land and other real estate investment by endowments

Healthcare financial managers monitor many measurements. Among the most common are:

- Admissions, which is the number of patients, excluding newborns, accepted for inpatient service.
- Average daily census, which is the average number of inpatients, excluding newborns, receiving care each day during the reporting period.
- Average length of stay (ALOS), which is derived by dividing the number of inpatient days by the number of admissions.
- Occupancy rate, which is the ratio of average daily census to the average number of statistical (set up and staffed for use) beds.
The purpose of managerial accounting is to provide accounting information, generally current or prospective in nature, to internal users, including managers. Such accounting information supports the planning and control management functions. In this way, managerial accounting is the link between financial accounting and the manager. Managerial accounting, or accounting information prepared for internal use, requires no prescribed format and therefore varies greatly among organizations. Managerial accounting topics like budgeting and inventory control require knowledge of economics, statistics, and operations research.

Many managerial accountants believe that cost accounting—which is the study of costs, including methods for classifying, allocating, and identifying costs—is either synonymous with or a subset of managerial accounting. Others argue that cost accounting includes all managerial accounting and also requires some financial accounting. Cost accounting and managerial accounting also include topics that could be considered finance.

**Finance**

Historically, the purpose of finance has been to borrow and invest the funds necessary for the organization to accomplish its purpose. Today, the purpose of finance is to analyze the information provided by managerial accounting to evaluate past decisions and make sound decisions regarding the future of the organization (Finkler 1996). Finance uses techniques such as **ratio analysis** and **capital analysis** and requires knowledge of financial and managerial accounting (see Appendix 1.1), economics (see Appendix 1.2), statistics (see Appendix 1.3), and operations research. Exhibit 1.1 shows the relationship of finance to the aforementioned supporting disciplines.

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**ratio analysis**
A financial analysis tool that compares various key financial indicators. Examples include debt to equity and revenue to assets (also called asset turnover).

**capital analysis**
A process to determine how much a capital expenditure will cost and what return it will generate.
**Major Objectives of Healthcare Financial Management**

**Generate Income**
While the purpose of healthcare financial management is to provide accounting and finance information that assists healthcare management in accomplishing the organization’s objectives, all organizations have at least one objective in common: to survive and grow. Organizations in other industries might refer to this as maximizing owners’ wealth; healthcare organizations typically refer to this as maintaining community services. In either event, the organization will be of little use if it cannot afford to continue to operate.

Therefore, the most important objective of healthcare financial management is to generate a reasonable net income (i.e., the difference between collected revenue and expenses) by investing in assets and putting the assets to work.

**Respond to Regulations**
Although financial management in healthcare organizations has similar objectives to that of organizations in other industries, different objectives also exist. The federal, state, and local governments regulate healthcare to a significant degree because healthcare organizations are in a position to take advantage of the sick and the elderly; regulation protects individuals who cannot protect themselves. US, state, and local governments pay over 47 percent of all healthcare bills and therefore have a vested interest in ensuring that government money is well spent (Truffer et al. 2010). Healthcare organizations must also be accredited or certified to qualify for reimbursement from many third-party payers and to qualify for loans from certain lenders. Therefore, the second objective of healthcare financial management is to respond to the myriad of regulations in a timely and cost-effective manner.

**Facilitate Relationships with Third-Party Payers**
The third objective of healthcare financial management is to facilitate the organization’s relationship with third-party payers, such as insurance companies, who pay all or a portion of the bill. Third-party payers account for over 88.1 percent of a healthcare organization’s operating revenue (Truffer et al. 2010). Financial management must be responsive to third-party payers and in many ways must treat third-party payers as customers, because the third party pays the bill. At the same time, financial management must be attentive to the patient, because the patient has influence over the third-party payer and in some cases may be partially responsible for the bill.

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**third-party payer**
An entity, such as an insurance company, that pays for healthcare for another entity, such as a patient. Such payers are called “third-party” because they do not deliver the healthcare service nor receive it; they are the third party involved in a healthcare transaction.
**Influence Method and Amount of Payment**

The fourth objective of healthcare financial management is to influence the method and amount of payment chosen by third-party payers. Third-party payers are becoming increasingly aggressive in asking healthcare organizations for discounts if they provide large numbers of patients. In certain cases, healthcare organizations are discounting prices below costs, in order to maintain market share. Some third-party payers, like Medicare, are asking healthcare organizations to assume part of the financial risk for the patient by agreeing to a **prospective payment** or, in other words, agreeing in advance to a price for providing care to a patient. Healthcare organizations lose money if they provide care that costs more than the prospective payment. Some third-party payers are asking healthcare organizations to assume risk by agreeing to a **capitated price** (i.e., a price per head or subscriber) before the subscriber actually needs care. Capitated prices put healthcare organizations at risk for the cost of care, if needed.

**Monitor Physicians**

The fifth objective of healthcare financial management is to monitor physicians and their potential financial liability to the organization. In 2009, physicians and clinical services accounted for 20.3 percent of all healthcare spending (KFF.org 2010). However, physicians influence much of the healthcare spending that is not directly attributed to them. For example, physicians order the patient admission, the diagnostic testing and treatment for the patient, and the patient discharge. Healthcare financial management must ensure through the utilization review process that physician ordering patterns are consistent with what the patient needs. In addition, healthcare financial management must ensure through the credentialing process and the risk management process that the healthcare organization has minimized its exposure to legal liability for a physician’s possible negligent actions.

**Protect Tax Status**

The sixth major objective of healthcare financial management is to protect the organization’s tax status. For-profit healthcare organizations seek ways to reduce their tax liability, and not-for-profit healthcare organizations try to protect their tax-exempt status. Protecting tax-exempt status has become more difficult as state and local governments seek new revenue sources, and tax-exempt status has come under judicial and public scrutiny (see Chapter 3).
Quality Assessment and Healthcare Financial Management

“Quality . . . you know what it is, yet you don’t know what it is. But that’s self-contradictory. But some things are better than others. That is they have more quality. But when you try to say what that quality is, apart from the things that have it, it all goes poof! There’s nothing to talk about. But if you can’t say what quality is, then for all practical purposes, it doesn’t exist at all. But for all practical purposes it does exist. What else are the grades based upon? Why else would people pay fortunes for some things and throw others in the trash pile? Obviously, some things are better than others . . . but what’s the ‘betterness’? . . . So round and round you go, spinning mental wheels and nowhere finding any place to get traction” (Pirsig 1974, 179).

During the past 35 years, healthcare organizations have responded to serious pressure to define quality. In the early 1970s, accrediting agencies and third-party payers applied this pressure. In the late 1970s and early 1980s, the consumer movement added pressure. In the late 1980s through the present, competition has added pressure. Economists predict that the pressure will continue as competition drives prices to their lowest, and relatively equal, point, and the market will force healthcare organizations that survive to compete on quality in addition to price. Healthcare organizations have responded to this pressure with two different strategies: a proactive strategy that attempts to adopt a comprehensive view of quality, and a reactive strategy that attempts to limit views of quality to views developed by others.

Proactive Strategy

Healthcare organizations that have adopted a proactive strategy have developed multiple measures of quality, including direct and indirect measures that go beyond the minimum measures required by accrediting organizations (Conrad and Blackburn 1985). Direct measures of quality assume that the organization can define and measure quality itself. These measures include the following:

1. Goal-based measures assess quality by the progress made toward the goals of the strategic and operating plans. The key advantage of goal-based measures is that they focus attention on success or failure.
2. *Responsive measures* assess quality by customer opinion. The key advantage of responsive measures is that they understand quality from the customer’s point of view.

3. *Decision-making measures* assess quality by evaluating decisions. The key advantage of decision-making measures is that they direct accountability to the decision maker.

4. *Connoisseurship measures* allow quality to be assessed by expert opinion, such as accreditation. The key advantage of connoisseurship measures is that they inspire high credibility.

Indirect measures of quality assume that the organization cannot define and measure quality itself, but can define and measure the results of quality. These measures include the following:

1. *Resource measures* assume that price reflects quality. The key advantage of resource measures is that they provide quantitative data that are readily available.

2. *Outcome measures* assume that results reflect quality. The key advantage of outcome measures is the emphasis on results.

3. *Reputational measures* assume that public perception reflects quality. The key advantage of reputational measures is that they produce ratings for the public.

4. *Value-added measures* assume that process reflects quality. The key advantage of value-added measures is that, after adjusting for input and output, they focus on process, which the organization can control.

**Reactive Strategy**

Healthcare organizations that have adopted a reactive strategy have responded to accrediting agencies and quality consultants. These responses have included:

- ensuring quality by centralizing quality efforts in a quality assurance department, then decentralizing quality efforts to clinical departments, and then further decentralizing quality efforts to all departments;

- ensuring quality by studying clinical outcomes, then studying clinical processes, then studying all outcomes and all processes, and finally studying key outcomes and key processes;

- improving quality by continuous attention and total management; and

- assessing quality by identifying key processes and desired outcomes.
Since 1986 The Joint Commission has focused on quality, the customer, work processes, measurements, and improvements. To its primary goal of accrediting healthcare organizations, The Joint Commission added the goal of developing and implementing a national performance measurement database. The standard related to quality reads, “the [healthcare organization] has a planned, systematic, [organization]-wide approach to process design and performance measurement, assessment, and improvement” (Joint Commission 1996, 134).

The following is a summary of the standard. Starting with each department’s goals and objectives, the manager and employees should discuss desired outcomes and their indicators. Desired indicators should be both sentinel and rate based. A sentinel indicator measures a process so important that every time the indicators occur, the manager initiates an individual case review. A rate-based indicator measures a process of lesser importance and allows for an error rate; the manager initiates case reviews only if the error rate is exceeded. For instance, an objective of a patient accounts department may be to collect patient bills as rapidly as possible. Desired outcomes may be no lost bills and no more than 5 percent of the total bills going to a collection agency. A sentinel indicator would be a lost bill, initiating a case review on why the bill was lost. The rate-based indicator would be the percentage of total bills going to a collection agency. Reviews would be necessary only if the rate exceeded a predetermined rate—in this example, 5 percent. Reviews should result in recommendations to improve the key processes necessary to meet the desired outcomes. Exhibit 1.2 reflects these steps.

In response to the Institute of Medicine’s (IOM) 1999 report that as many as 98,000 Americans die each year as a result of errors in hospitals, The Joint Commission announced a new set of patient safety and medical error reduction standards that took effect July 1, 2001 (Joint Commission 2001). The IOM report was reinforced by three 2006 studies that measured not only deaths caused by hospital-acquired infections, but also the increased costs associated with the preventable hospital errors (Conn 2006). The Joint Commission standards require accredited hospitals (Lovern 2001) to

◆ make their doctors tell patients when they receive substandard care or care that differs significantly from anticipated outcomes;
◆ implement an organization-wide patient safety program with procedures for immediate response to medical errors;
◆ report to the hospital’s governing body at least once annually on the occurrence of medical errors; and
◆ revise patient satisfaction surveys to ask patients how the organization can improve patient safety.
In the 2009 hospital accreditation standards, The Joint Commission separated five chapters from their previous chapters to give the issues a more complete emphasis. The new chapters include (Joint Commission 2009):

- Emergency Management
- Life Safety
- Record of Care, Treatment, and Services
- Transplant Safety
- Waived Testing

In July 2002, The Joint Commission approved the first National Patient Safety Goals (NPSGs) for hospitals. The NPSGs help accredited organizations address specific areas of concern regarding patient safety. Each goal includes no more than two evidence- or expert-based requirements. Each year the goals are reevaluated, and the goals may be continued or replaced based on new patient safety priorities. The 2010 Joint Commission NPSGs for hospitals include (Joint Commission 2009):

- Improve the accuracy of patient identification by using at least two ways of identifying patients.
- Improve the effectiveness of communication among caregivers.
- Improve the safety of using medications.
- Reduce the risk of healthcare-associated infections.
- Accurately and completely reconcile medications across the continuum of care.
◆ Reduce the risk of patient harm resulting from falls.
◆ Reduce healthcare-associated pressure ulcers.
◆ Identify safety risks inherent in the hospital’s patient population.

National Patient Safety Goals for other types of healthcare providers can be viewed at www.JointCommission.org.

**Effects of Quality on Profitability**

There is significant evidence that improved quality has led to improved profitability in healthcare. Solucient, a healthcare information company, each year ranks the nation’s top 100 hospitals using clinical measures. In 2003, *Modern Healthcare* for the first time reported financial data for the top 100 hospitals. The top 100 hospitals consistently outperformed their peer group hospitals on both the clinical and financial measures, as indicated in Exhibit 1.3.

**Organizational Ethics and Healthcare Financial Management**

The Joint Commission and healthcare professional associations like ACHE and HFMA have emphasized organizational ethics over the past two decades. Several Joint Commission standards require healthcare organizations to have mechanisms in place to address ethical issues related to such topics as patient rights and management responsibilities. Ethical issues concerning patient rights include informed consent, do-not-resuscitate or-

<table>
<thead>
<tr>
<th>Measures</th>
<th>100 Top Hospitals</th>
<th>Peer Hospitals</th>
<th>100 Top to Peer Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality index</td>
<td>0.82</td>
<td>0.97</td>
<td>15.5% lower mortality</td>
</tr>
<tr>
<td>Complications index</td>
<td>0.84</td>
<td>0.94</td>
<td>10.6% fewer complications</td>
</tr>
<tr>
<td>Average length of stay (LOS)</td>
<td>3.60</td>
<td>3.94</td>
<td>8.6% shorter LOS</td>
</tr>
<tr>
<td>Average expense/discharge</td>
<td>$3,795</td>
<td>$4,677</td>
<td>18.9% lower expenses</td>
</tr>
<tr>
<td>Profitability (margin)</td>
<td>6.90%</td>
<td>2.13%</td>
<td>223.9% higher margins</td>
</tr>
</tbody>
</table>

ders, and patient confidentiality. Ethical issues concerning management responsibilities include resource allocation, conflicts of interest, and patient billing practices.

Resource allocation decisions by managers often conflict with the decisions made by physicians and other clinicians. Managers typically represent a utilitarian view of ethics, best represented by the phrase, “the greatest good for the greatest number.” This view allows managers to sacrifice the use of resources for one patient to maintain resources for other patients, given the assumption that resources for the healthcare organization are limited. Clinicians typically represent a deontological view of ethics, which means their decisions are governed by their duties to patients, which take precedence over the ends-based decision making of the manager. This continuous conflict seems to keep resource allocation decisions somewhat balanced.

Conflicts of interest occur when an individual owes duties to two or more persons or organizations and when meeting a duty to one somehow harms the other (Darr 2004). Perhaps the worst examples of conflict of interest involve the conflict between a manager’s duties to the organization and a manager’s duties to self, such as when managers use their positions of authority for personal gain. Even the perception of impropriety may cause a loss of credibility (Nowicki and Summers 2001). This is especially true in financial management, where contracts for services and products are awarded to vendors who may attempt to buy influence with a lunch or a gift (Nowicki 1995).

For the most part, patient billing practices are covered by law; however, even certain legal practices have ethical ramifications. For instance, how long should a healthcare organization hold a patient’s deposit after the insurance company pays in full? While a healthcare organization may be under no legal obligation to refund overpayments by insurance companies (Sturn 1995), is keeping someone else’s money ethical? What is the organization’s obligation to generate a bill free of errors? What is the organization’s obligation to release prices to patients and otherwise assist patients in the buying decision?
Many healthcare organizations use ethics committees to provide answers to these and other billing questions. Although healthcare organizations are not required to organize ethics committees, committees are a useful way to solicit community input on billing issues.

**Value of Healthcare Financial Management**

Healthcare financial management provides accounting information and financial techniques that allow managers to perform the management functions and the management connective processes and therefore accomplish the organizational objectives. In addition, healthcare financial management also has direct value to these functions, as explained in the following list of management functions (Dunn 2010).

- **Planning:** After the governing body completes the strategic plan and senior management completes the operating plan, financial management is often responsible for completing the operating budget and capital budget. The operating budget often provides the incentives to plan properly.

- **Organizing:** Financial management provides a chart of accounts based on the organizational chart that identifies revenue centers and cost centers. Together with the organizational chart, this provides the basis for responsibility accounting, which is the ability to hold department managers responsible for their revenues and expenses.

- **Staffing:** Financial management often staffs a variety of departments and processes important to the healthcare organization. Departments such as medical records and information systems are currently being placed under the supervision of financial management, in addition to departments such as accounting, admitting, and materials management, which have been traditionally under financial management. The increasing importance of nontraditional departments in the billing process appears to justify this trend.

- **Directing:** Financial management provides rewards and penalties to motivate others to accomplish the organization’s purposes.

- **Controlling:** Perhaps the responsibility closest to the overall function of financial management, the control of the budget, financial reports, financial policies and procedures, and financial audits allows financial management to monitor performance and take the appropriate corrective action when performance is unsatisfactory.

These management functions mean little without the management connective processes to integrate the functions.
Management Connective Processes

Communicating and coordinating are important to financial management for both reporting and advising. Also important is coordinating the relationships between, for example, revenue and expenses, capital budgets and operating budgets, and volumes and prices and collected revenues.

Decision making is important to financial management as a direct measure of quality. Governing boards, CEOs, and outside sources such as independent auditors often judge the quality of financial management based on the decisions and recommendations made by financial management. The advantage of this view of quality is that it holds the decision maker accountable. The disadvantage of this view of quality is that it assumes rational decision making. Decisions made in healthcare financial management are often based on politics or other criteria that are unknown to the evaluator of the decision. Therefore, a decision may be evaluated as bad based on the known facts, but it may be evaluated as good based on other criteria unknown to the evaluator.

Effect of Financial Management on the Changing Face of Healthcare

Many say that financial management is the most important predictor of whether healthcare organizations will survive in the current competitive climate and beyond. The recession that began in 2008 affected healthcare organizations as much as it affected many other industries, and the passage of healthcare reform is creating entirely new financial challenges. The implications of reform on healthcare finance will not be known for many years, but at least three elements of the legislation will profoundly affect the financial situation of healthcare organizations: the increase in the number of individuals with health insurance; the changing reimbursement structures; and the explicit linking of reimbursement with quality measures.

Clearly, only the well-managed healthcare organizations will survive this changing situation; financial management will be instrumental in their survival.
The difference between the organizational purpose and the financial purpose of the organization is important.

The major objectives of financial management, and which one is most important, is relevant to any healthcare manager.

Quality is important and understanding its impact on profitability makes good managers great managers.

Sound ethical reasoning should affect every decision, even financial decision making.

Discussion Questions

1. Why is financial management important to the organization?
2. Distinguish between the purpose of healthcare management and the purpose of healthcare financial management.
3. Prioritize the major objectives of healthcare financial management.
4. Describe the major ethical theories and how they apply to the role of a healthcare manager.
5. Describe why financial managers should be concerned with quality initiatives in the healthcare organization.
6. Predict how financial management and the management functions will be important as healthcare changes in the future.
Appendix 1.1
Financial Accounting Outline

I. Financial accounting is the science of preparing financial statements for use by individuals and organizations external to the organization.

II. Accounting equation
   \[ \text{Total assets} = \text{Liabilities} + \text{Net assets} \]

III. Objectives of financial accounting
   A. Provide information that is useful to present and potential investors, creditors, and other decision makers.
   B. Provide information about the economic resources of the healthcare organization, the claims to those resources, and the effects of transactions, events, and circumstances that change those resources.
   C. Provide information about a healthcare organization’s performance.
   D. Provide information about how a healthcare organization generates and expends cash, about its loans and repayment of loans, and about its capital expenditures.
   E. Provide information about how a healthcare organization has discharged its stewardship duties to its owners.

IV. Accounting concepts
   A. Entity—The healthcare organization stands apart from all other organizations and is capable of taking on economic transactions.
   B. Reliability—Accounting records must be based on information that is verifiable from an independent source.
   C. Cost valuation—Assets and services are recorded at actual, historic cost.
   D. Going concern—The entity will operate long enough to recover the cost of its assets.
   E. Stable monetary unit—This is the basis for ignoring the effects of inflation in short-term transactions.

V. Accounting principles
   A. Accrual accounting—Revenue is recorded when it is realized (i.e., billed), and expense is recorded when it contributes to operations.
   B. Cash accounting—Revenue and expenses are recorded when cash is actually received or paid.
   C. Accounting period—This is a defined fiscal year or month.
   D. Matching—Related revenue and expense should be reported in the same accounting period.
   E. Conservatism—Uncertainty dictates understating revenues and volumes that lead to revenues, and overstating expenses.
   F. Full disclosure—All economic transactions should be recorded.
G. Industry practices—Accounting principles are relatively unique to the healthcare industry.

1. Fund accounting—This allows not-for-profit and governmental healthcare organizations to establish separate entities for specified activities. Typical funds include operating or general funds, specific-purpose funds, plant-replacement funds, and endowment funds. Each fund is self-balancing in that assets equal liabilities added to net fund balance.

2. Contractual allowances—This is the revenue account that records the difference between billed charges and the price a customer has agreed in advance to pay via contract.

3. Depreciation—This is the expense account that records the estimated cost of an expiring asset.

4. Funded depreciation—This is the amount saved to replace assets at the end of their useful life.

   a. There were major changes in the 1990 edition.
      1) On the statement of revenues and expenses, operating revenue is reported net of contractual allowances.
      2) On the statement of revenues and expenses, operating revenue is reported net of charity care; however, the healthcare organization’s policy for charity care, in addition to the level of charity care, must be in the footnotes.
      3) On the statement of revenues and expenses, bad debt expense is reported as an expense based on price.
      4) On the statement of revenues and expenses, donated assets are reported at fair market value as of the date of the gift.
      5) On the statement of revenues and expenses, donated services are reported as an expense, and a corresponding amount is reported as a contribution, but only if the services are significant and measurable.

   b. There were major changes in the 1996 edition.
      1) Changes were made to the basic financial statements.
         a) Balance sheet (consolidated)
         b) Statement of operations
         c) Statement of changes in equity
         d) Statement of cash flows
      2) The balance sheet reports net assets.
         a) Unrestricted
b) Temporarily restricted
c) Permanently restricted

3) Statement of operations reports performance indicator
   a) Revenues over expenses
   b) Earned income
   c) Performance earnings

c. There were major changes in the 2009 edition.
   1) Update on the hierarchy of generally accepted accounting principles
   2) Omnibus change to the consolidation and equity method guidance for not-for-profit organizations
   3) Determining fair value when the volume and level of activity for the asset or liability have significantly decreased
   4) Interim disclosure about fair value of financial investments
   5) Recognition and presentation of other-than-temporary impairments
   6) The hierarchy of generally accepted accounting principles for state and local governments
   7) Land and other real estate investment by endowments

d. Anticipated changes include
   1) Revenue recognition criteria, including the accounting and disclosures for charity care and other uncompensated care
   2) Illustrative financial statement disclosures of activity for settlements due to (and from) third parties
   3) Physician loan guarantees
   4) Affiliated receivables when collection is in doubt
   5) Joint operating agreements between not-for-profit healthcare organizations
   6) Transfers of liabilities or net assets between unrelated not-for-profit organizations
   7) Separate audit guide for continuing care retirement communities
   8) Malpractice and insurance liabilities
   9) Contributions and pledges
   10) Auditor association with cost reports

VI. Sarbanes-Oxley Act of 2002
   A. Federal corporate accountability legislation passed in the aftermath of Enron's downfall and intended to improve governance and corporate practices. The legislation includes the following standards.
1. Accounting firms are prohibited from providing certain nonaudit services to a client contemporaneously with an audit.
2. Accounting firms are required to “timely report” to the board’s audit committee material communications between the auditor and management.
3. Principal executive and financial officers are required to certify financial reports, subject to civil and criminal penalties.
4. Eligibility for audit committee membership, including no affiliation with the company or its subsidiaries, and specific duties of the audit committee are established.
5. The Securities and Exchange Commission (SEC) is directed to establish “minimum standards of professional conduct” for lawyers whose practice includes SEC matters.
6. Personal loans to directors and executive officers are prohibited.
7. Companies are required to maintain an internal control structure and procedures for financial reporting.
8. Companies are required to disclose whether they have a code of ethics for senior financial officers.
10. New record retention rules and penalties are established.

B. The act applies only to public companies, though many states are considering adopting similar legislation for nonprofits (e.g., New York).
C. Some nonprofits are holding themselves voluntarily to Sarbanes-Oxley standards.
Appendix 1.2
Economics Outline

I. Economics is the science of producing, distributing, and consuming material goods and services to make better decisions in a world of limited resources.

II. Economic systems
   A. Capitalism is based on private property rights with distribution decisions made by the free market based on ability.
      1. Adam Smith’s theory was that an “invisible hand” guides the free market economy. Individuals who pursue their own self-interests actually produce economic results beneficial to society as a whole (Smith 1766).
      2. The government’s role
         a. National defense
         b. Administration of justice
         c. Facilitation of commerce
         d. Provision of certain public works
   B. Socialism is based on private and government property rights with distribution decisions made by the government based on effort.
      1. Karl Marx defined socialism as a transitory stage between capitalism and communism. Socialism is classified by government ownership of all important property, and means of distribution of surplus by the government based on the formula: “from each according to ability, to each according to labor” (Marx 1848).
      2. The government’s role: “dictatorship of the proletariat” during an economic class struggle.
   C. Communism is based on public property rights with distribution decisions made by the public based on need.
      1. Karl Marx classified communism as the final and perfect goal of historic development characterized by (1) a classless society in which all people live by earning and no person lives by owning; and (2) the abolition of the wage system so that all citizens live and work based on the formula: “from each according to ability, to each according to need.”
      2. The government’s role: no government.

III. Free markets under capitalism
   A. Characteristics of free market
      1. There is a large number of buyers and sellers, each with a small share of the total business so that no single participant can affect market price.
2. Buyers and sellers are unencumbered by economic or institutional restrictions, and they possess full knowledge of market prices and alternatives. As a result, they enter or leave markets whenever they wish.

B. Functions of free market
1. Competitive prices through the law of supply and demand are established.
2. Efficient use of resources is encouraged.

C. Theories of free market
1. Classical—At market equilibrium (supply equals demand therefore price remains constant), the economy attains full employment; supply creates its own demand; flexibility exists in wages, prices, and interest rates; and savings are invested.
2. Demand side—At market equilibrium, the economy does not attain full employment, demand creates its own supply, wages and prices are “sticky,” and savers and investors are different people with different motivations.
3. Supply side—At market equilibrium, the economy does not attain full employment; supply creates its own demand; flexibility exists in wages, prices, and interest rates; and savings are invested.

D. Policy implications of free market theories
1. Classical—Market is self-correcting; no policies are needed.
2. Demand side—Market self-correction is possible; however, it may take a long time. Therefore, government intervention is necessary to stimulate the economy by regulating demand through large-scale government spending programs supported by increased taxes or increased money supply.
3. Supply side—Market self-correction is possible; however, it may take a long time. Therefore, government intervention is necessary to stimulate the economy by stimulating supply (production) through tax reductions, nonmonetization of government deficits, and deregulation of certain industries.

E. Supply side economics—Did it work during the 1980s?
1. Efficiency
   a. The inflation rate fell from an annual average of 10.3 percent under President Carter to 3.9 percent under President Reagan.
   b. The unemployment rate fell from an annual average of 7.5 percent under Carter to 5.3 percent under Reagan.
   c. Per capita disposable income rose from $9,800 under Carter to $11,000 under Reagan.
   d. Interest rates declined from 12.5 percent under Carter to 8.5 percent under Reagan.
2. Growth—The gross national product rose from an annual average of 2.7 percent under Carter to 3.0 percent under Reagan.

3. Deregulation—Modest gains were achieved under Reagan; most notable was the airline industry.

4. Equity—Families living in poverty increased from 11.9 percent under Carter to 13.7 percent under Reagan.

5. Stability—Deficits increased from an annual average of $60 billion under Carter to $190 billion under Reagan.

F. Regulation in the free market

1. Costs of regulation (Weidenbaum and DeFina 1981)
   a. Direct costs = $10 billion per year
   b. Indirect costs, or compliance costs = $200 billion per year

2. Economic justifications for regulation
   a. Public interest theory—to protect the public
   b. Industry interest theory—to protect the industry
   c. Public choice theory—to protect government

IV. Healthcare economics

A. External effects on healthcare economics

1. Federal debt (in billions)
   1965 = $317.2
   1975 = $533.1
   1985 = $1,823.1
   1995 = $4,973.9
   2000 = $5,674.2
   2001 = $5,807.4
   2002 = $6,228.2
   2003 = $6,783.2
   2004 = $7,379.1
   2005 = $7,933.0
   2006 = $8,507.0
   2007 = $9,007.6
   2008 = $10,024.7
   2009 = $11,909.8
   2010 = $13,700.0

2. Federal budget surpluses (in billions)
   1965 = $(2)
   1975 = $(55)
   1985 = $(222)
   1995 = $(226)
   2000 = $86
   2001 = $32
2002 = ($317)
2003 = ($538)
2004 = ($568)
2005 = ($494)
2006 = ($435)
2007 = ($342)
2008 = ($455)
2009 = ($1,587)
2010 = ($1,342)

3. Aging population
   1960 = 9.3 percent over 65 years old
   1995 = 13.0 percent over 65 years old
   2030* = 20.7 percent over 65 years old

B. Internal effects on healthcare economics
   1. Health expenditures by population over 65 years
      1960 = 23.6 percent
      1995 = 33.0 percent
      2030* = 52.5 percent
   2. Health expenditures as a percentage of the gross domestic product
      1960 = 5.3 percent
      1970 = 7.2 percent
      1980 = 9.1 percent
      1990 = 12.3 percent
      2000 = 13.6 percent
      2005 = 15.7 percent
      2006 = 15.8 percent
      2007 = 15.9 percent
      2008 = 16.6 percent
      2009 = 17.6 percent
      2010* = 17.5 percent
   3. Health expenditures per person
      1960 = $146
      1970 = $356
      1980 = $1,100
      1990 = $2,814
      2000 = $4,789
      2005 = $6,701
      2006 = $7,071
      2007 = $7,423
      2008 = $7,681
      2009* = $8,087
      2010* = $8,290
4. Health expenditures by type of service, 2009
   - Hospital care, 30 percent
   - Professional service, 27 percent
   - Prescription drugs, 10 percent
   - Administration, 7 percent
   - Investment, 6 percent
   - Nursing homes, 6 percent
   - Other personal, 5 percent
   - Medical equipment and supplies, 3 percent
   - Public health, 3 percent
   - Home health, 3 percent

5. Health expenditures sponsor, 2009
   - Households, 29 percent
   - Federal, 27 percent
   - Private business, 21 percent
   - State/local, 16 percent
   - Private other, 7 percent

6. Health expenditures by percentage increase from previous year
   - 1990 = 11.7 percent
   - 1991 = 9.5 percent
   - 1992 = 8.6 percent
   - 1993 = 7.3 percent
   - 1994 = 5.5 percent
   - 1995 = 5.4 percent
   - 1996 = 5.2 percent
   - 1997 = 5.4 percent
   - 1998 = 4.8 percent
   - 1999 = 5.6 percent
   - 2000 = 6.3 percent
   - 2001 = 8.5 percent
   - 2002 = 6.4 percent
   - 2003 = 8.2 percent
   - 2004 = 7.9 percent
   - 2005 = 7.4 percent
   - 2006 = 6.7 percent
   - 2007 = 6.0 percent
   - 2008 = 4.4 percent
   - 2009 = 4.0 percent

   * projected
Appendix 1.3
Statistics Outline

I. Statistics is the science of collecting, organizing, presenting, analyzing, and interpreting numbers to make better decisions in a world of uncertainty.

II. Descriptive statistics
   A. Descriptive statistics are used to describe various features of a data set.
   B. Measures of central tendency
      1. Mean, or average, is derived by summing the observations and dividing by the number of observations.
      2. Median is derived by arranging the observations from smallest to largest and selecting the midpoint observation.
      3. Mode is derived by selecting the observation that occurs most often.
      4. Modified mean is derived by deleting the smallest and the largest observations.
      5. Weighted mean is derived by multiplying each observation by a volume, summing the results, and then dividing by the total volume.
   C. Measures of dispersion and shape
      1. Range is the difference between the largest and smallest observation.
      2. Variance is the average of the squared differences between each observation and the mean.
      3. Standard deviation is the square root of the variance.
      4. Shape
         a. Symmetrical—Mean and median are the same.
         b. Right or positive skewed—Mean exceeds the median.
         c. Left or negative skewed—Median exceeds the mean.
   D. The index number is derived by calculating the number in current year divided by the number in base year times 100.

III. Inferential statistics
   A. Inferential statistics are used to infer the characteristics of a sample to the characteristics of the population.
   B. Probability
   C. Hypothesis testing
   D. Linear regression and correlation are used to predict future events and the strength of the association between variables.
   E. Tests of significance
      1. The t-test is used to determine how likely it is that two mean scores differ by chance.
      2. Analysis of variance is used to determine whether a significant difference exists between two or more means.
3. Analysis of covariance is used to determine whether there is a significant difference between two or more means for groups that are initially unequal.

IV. Healthcare statistics
A. Adjusted average daily census is derived by dividing the number of inpatient day equivalents (also called adjusted inpatient days) by the number of days in the reporting period.
B. Adjusted expenses per admission is derived by removing expenses incurred for the provision of outpatient care from total expenses and then dividing by the total admissions in the reporting period.
C. Adjusted expenses per inpatient day is derived by dividing total expenses by inpatient day equivalents (also called adjusted inpatient days).
D. Adjusted inpatient days—See inpatient day equivalents.
E. Admissions include number of patients, excluding newborns, accepted for inpatient service.
F. Average daily census is the average number of inpatients, excluding newborns, receiving care each day during the reporting period.
G. Average length of stay is derived by dividing the number of inpatient days by the number of admissions.
H. Expenses includes all expenses for the reporting period.
   1. Payroll expenses includes all salaries and wages.
   2. All professional fees and those salary expenditures excluded from payroll are defined as nonpayroll expenses and are included in total expenses. Labor-related expenses is defined as payroll expenses plus employee benefits. Nonlabor-related expenses is all other nonpayroll expenses. In accordance with the AICPA Audit and Accounting Guide for Health Care Organizations (AICPA 1996), bad debt has been reclassified from a “deduction from revenue” to an expense. However, for historic consistency purposes, expense totals may not actually include bad debt expense.
I. Full-time equivalent personnel is derived by adding the number of full-time personnel to one-half the number of part-time personnel.
J. Inpatient day equivalents is derived by multiplying the number of outpatient visits by the ratio of outpatient revenue per outpatient visit to inpatient revenue per inpatient day, and adding the product (which represents the number of patient days attributable to outpatient services) to the number of inpatient days (can also be used to adjust patient days for skilled nursing facilities, rehab, home care, etc.).
K. Occupancy rate is the ratio of average daily census to the average number of statistical (set up and staffed for use) beds (AHA 1985).
L. **Revenue**—Gross patient revenue (inpatient and outpatient) is revenue from services rendered to patients, including payments received from or on behalf of individual patients. Net patient revenue is derived by subtracting contractual adjustments and charity care from gross patient revenue. Net patient revenue represents what the organization actually intends to collect. Net total revenue is net patient revenue plus all other revenue, including contributions, endowment revenue, government grants, and all other revenue not made on behalf of patients.