

A PRIMER ON

# HOSPITAL ACCOUNTING AND FINANCE

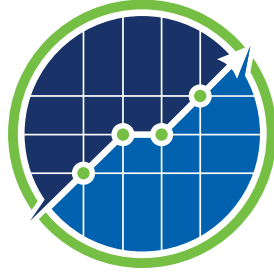
FOR DIRECTORS AND OTHER HEALTHCARE PROFESSIONALS

FIFTH EDITION

FELIX KAUFMAN, PH.D., CPA

***KaufmanHall***





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# About the Author and This Primer

**Felix Kaufman, Ph.D., CPA**, (1921–2012) was a partner of the firm of Coopers & Lybrand. During his 23-year career with the firm, Mr. Kaufman<sup>1</sup> held senior positions in the consulting practice, including 10 years as National Director of Management Consulting Services.

Mr. Kaufman also was a former board member for the Hospital for Joint Diseases Orthopaedic Institute in New York City and New York University Health Center. He served as Treasurer and Chairman of the Budget and Finance Committee at the Hospital for Joint Diseases.

Mr. Kaufman earned a Ph.D. degree from the University of Chicago Graduate School of Business. From 1974 to 1976, he was President of the Institute of Management Consultants.

Mr. Kaufman authored the first three editions of this primer, which Kaufman, Hall & Associates published in 1993, 1996, and

2005, respectively. The demand for the publication from directors and healthcare executives was strong and has not abated.

As a result, Kaufman, Hall & Associates prepared a fourth and this fifth edition in tribute to Felix Kaufman and his enduring contribution to healthcare financial management and governance education. Revisions reflect new developments in the field. Dawn Samaris, Senior Vice President in Kaufman Hall's Financial and Capital Planning Practice, assisted with this edition.

Kaufman Hall is pleased to publish this fifth edition in collaboration with The Governance Institute, an organization with an unwavering commitment to the provision of quality education for hospital and health system leadership.

## Kaufman, Hall & Associates, LLC

Founded in 1985, **Kaufman, Hall & Associates, LLC** is one of the most respected management consulting and software firms in healthcare. The firm provides advisory services in finance; strategic, financial, and capital planning; capital allocation design and implementation; and mergers, acquisitions, and partnerships. With the acquisition of Axiom EPM in 2014, the firm expanded its breadth of industries and software capabilities to include enterprise performance management industry solutions for banking, healthcare, higher education, insurance, retail, and manufacturing.

The firm's original mission remains its current mission: To enable client organizations to reach their full business potential through the provision of high-value, financially centered, consulting services and software products. Kaufman Hall serves its clients from offices in Chicago, Atlanta, Boston, Los Angeles, New York, and Portland. For more information, visit [kaufmanhall.com](http://kaufmanhall.com).

<sup>1</sup> Felix Kaufman preferred "Mr. Kaufman" to "Dr. Kaufman."

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# Introduction

**A**ccelerated by healthcare reform and insurance market reform, healthcare is moving to a value-based business model from a volume-based model that has been in place since the 1960s.

ECONOMIC PRINCIPLES RELATED TO THE UNSUSTAINABILITY of U.S. healthcare costs have made this transformation inevitable. The combined impact of the new model and environmental forces will be significant for all types of providers industry-wide. Forces include increasing enrollment in private and public exchanges with high-deductible plans, increasing consumer and employer price sensitivity, declining payments, rising costs, emergence of nontraditional competitors, declining inpatient utilization, and a shift of care focus to ambulatory, other non-acute settings, and virtual services.

All healthcare organizations are facing difficult financial challenges with potentially game-changing strategic implications.<sup>2</sup> Careful and credible decision making by directors and executives is more critical than ever. Decisions must reflect financial expertise and a thorough understanding of the organization's financial condition.

This primer is intended to facilitate improved financial decision making by providing board members and senior leaders with

an easy-to-understand guide to the basic principles of healthcare accounting, payment, and finance. Readers are advised to seek in-depth information, as required in each specific area and circumstance.

## **A Note about the Financial Statements**

This primer includes sample financial statements and statistics to illustrate certain general points and principles. The documents do not represent those from an actual organization. Because financial statements vary by organization, please consult your senior financial executive for information about your organization's specific methodology.

## **A Note about Terminology**

The term *hospital* and *organization* appear interchangeably throughout the publication. The focus of the primer is not-for-profit acute care facilities.

<sup>2</sup> For more information, see K. Kaufman and M.E. Grube, "Succeeding in a Disruptive Environment," *Kaufman Hall Point of View*, July 2014 (available at [www.kaufmanhall.com](http://www.kaufmanhall.com)).





# Key Accounting Principles and Concepts

## Measuring Revenues and Expenses with Accrual Accounting

Accountants measure profit or loss by applying a concept called *accrual accounting*. This is a way of accurately comparing the organization's income against its expenses over time. The timing in "recognizing" each income and expense event is central to the method, which is used by all organizations. In healthcare, accrual accounting entails deciding when patients have received services for which the organization is entitled to income, as well as how and when the cost of these services is measured. Key points of accrual accounting include the following:

1. Income (revenue) is earned when services are provided. A patient in a bed is receiving a service.
2. Expenses are the costs of providing material and service to the parties that receive the service, when the service is being provided.
3. The timing of when an organization gets paid for the services it renders, or when it pays for the materials and services it purchases, is irrelevant to the accrual accounting method. Cash flow is a separate issue for consideration.
4. The accurate measurement of profits or losses depends upon the correct matching of services provided and the costs of providing these services.

Payment for services and materials that have been provided may occur long after they have been received and consumed. Cash flow generated by the provision of services and materials generally is not concurrent with recognition of related income and expense items. To illustrate these ideas, let's look first at the measurement of inpatient revenue.

## Allocation of Revenue (Income)

Hospitals are paid for patient care in numerous ways. New value-based payment approaches are emerging from government, commercial payers, and employers. The recognition of revenue depends upon the payment method. A description of key methods follows.

### Case Basis

Also called *prospective payment*, this has been the dominant payment method during the past decades following the adoption by Medicare of diagnosis-related groups (DRGs), now called Medicare severity-diagnosis related groups (MS-DRGs). These are described fully in the section entitled How Hospitals Are Paid (see page 7). Within specified parameters, the hospital or health system is paid a set fee for the care of a patient who has a certain condition, based on the patient's acuity level and diagnosis, including comorbidities, regardless of how long he or she is hospitalized or how many resources are consumed during the stay.

### Bundled or Episode of Care

Under these arrangements, a provider is paid a fixed amount for services required by a patient during an entire care episode, such as from the time a stroke patient is admitted to the hospital to 30 days after hospital discharge. Such arrangements often include multiple care sites, such as post-acute care facilities, with which the hospital must have contractual arrangements.

### Per Diem

With this type of payment, the hospital or health system receives an agreed-upon amount per patient day. For a long time, *per diem* was the only method of payment used, but it was *cost per diem*. The provider set the price. Now it is *contractual per diem*, and the payer sets the price.

### Capitation

Under capitated arrangements, the hospital or health system receives a fixed amount per enrolled individual per month—often indicated as per member per month (PMPM) or year to cover a specified scope of medical services. Or providers periodically receive a predetermined percentage of the premiums paid to the insurer. The provider is paid regardless of whether medical services are used and conversely bears all cost overruns from services provided. *Global capitation payments* cover all patient services, while *partial capitation payments* cover only a specified portion of services.



### Pay-for-Performance (P4P) and Shared Savings/Risk Arrangements

Such arrangements are now common as well, reflecting the movement to reward providers for increasing care value. Under P4P arrangements, providers receive bonus payments or have a portion of their pay withheld based on whether they meet preset performance targets. Targets may relate to quality, cost-effectiveness, efficiency of care, or other factors.

*Shared savings* arrangements offer incentives for providers to reduce healthcare spending for a defined patient population by offering them a percentage of net savings realized as a result of their efforts. Under *shared risk* arrangements, providers assume downside financial risk for not meeting targeted measures, but upside incentives when they exceed the measures.



## Realization of Revenue

When does the healthcare organization realize income for providing service to patients? Theoretically, hospitals or health systems accrue income continuously while the patient is in the hospital. Measuring income continuously, however, is neither practical nor necessary.

For the *case basis*, patient revenue in a particular month is the *total* of the following:

- The full fee for all patients admitted and discharged in the specific month
- The prorated portion of total revenue for all patients admitted in a previous month and discharged this month
- The prorated portion for all patients who are still in the facility past the month's end

By prorated, we mean the estimate of the portion of the total fee that we consider earned for the patient's care, as of the end of the period. This process seems straightforward in terms of its logic, but prorated allocation is difficult. There also are complications in applying appropriate rates.

For the *per diem* approach, income is determined by multiplying the *per diem* rate by the number of days actually spent by patients in the hospital during the accounted-for time period.

Revenue realization is simpler for outpatient activity. Since service is rendered on a one-day basis, there are no allocation issues.

## Cash Accounting

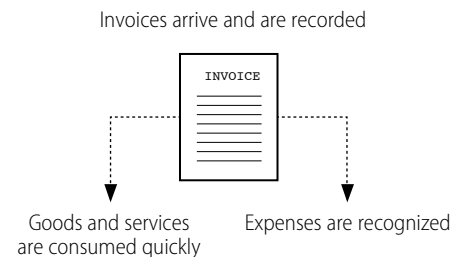
Cash accounting is a simple alternative to accrual accounting. Using this method, an organization recognizes income when the payer pays for the service; the organization incurs an expense when it pays for the costs involved. With cash accounting, income received from a million dollar contract in December 2015 is income in 2015.

*Cash accounting* and *cash flow* are not the same things. Cash accounting is one approach for recognizing income and expense; cash flow is an analysis of past, present, or prospective cash activity. Cash flow is a vital indicator of an organization's financial performance. Cash accounting is mentioned here only to facilitate an understanding of the accrual methodology.

## Expense Recognition

A number of timing issues arise in recognizing expenses under the accrual method. The first and easy case involves recognizing the steady flow of invoices for materials and services that are to be consumed promptly to provide patient care. Typically, such transactions are recognized as expenses when the invoices are recorded (see **Exhibit 1**).

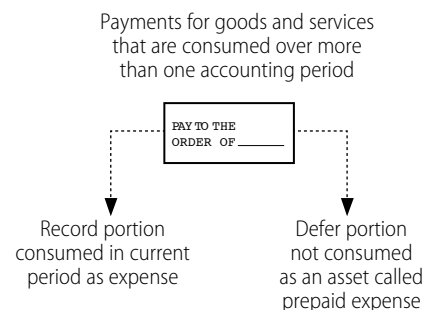
### Exhibit 1. Recognize Expenses Immediately



Source: Kaufman, Hall & Associates, LLC

A second category involves the purchase of goods and services for which an obligation is incurred, but where the goods and services are used during more than one accounting time period (see **Exhibit 2**). For example, consider an insurance premium that is paid on July 1 and provides insurance protection for one year from that date. If the accounting year ends in December, it is necessary to prorate the premium. One half is an expense of the current period; the other half is an asset pending transfer to the expense category in the next year. These items are commonly called *prepaid expenses* and appear on the left side (the asset side) of the organization's balance sheet.

### Exhibit 2. Prepayments



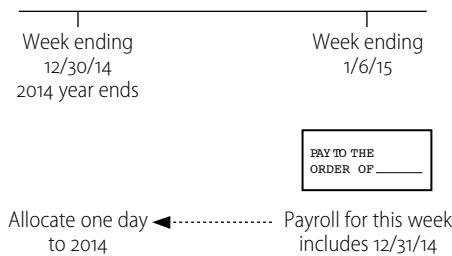
Source: Kaufman, Hall & Associates, LLC

A third category of expense recognition involves charges for services that have been provided to the organization but, for various reasons, no paperwork yet exists. For example, our auditors finish the 2014 audit in 2015. To recognize that cost in 2014, an entry must be made even before there is final knowledge of the amount. Such transactions, known as *accrued expenses*, run the gamut from situations where the overlap into a future period is

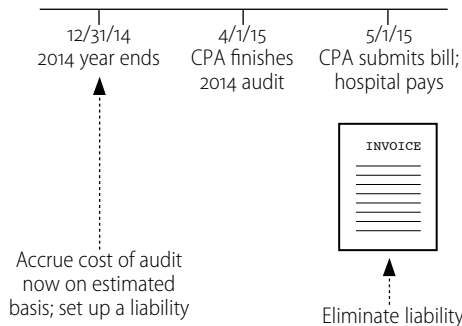
very brief, to new circumstances that will not be explicit until sometime well into the future.

There are many types of accruals, but a common example involves payrolls. At the end of a month, wages and salaries for the last few days of the month will not be recorded until the payroll for that week is paid, for example, during the first week of the following month. The cost of the overlapping days belongs to the current month (see **Exhibit 3**) and is a liability on the right side (the liability side) of the organization's balance sheet.

**Exhibit 3. Accrued Expenses**  
**Case 1: Wages**



**Case 2: Professional Expenses**



Source: Kaufman, Hall & Associates, LLC

## Depreciation

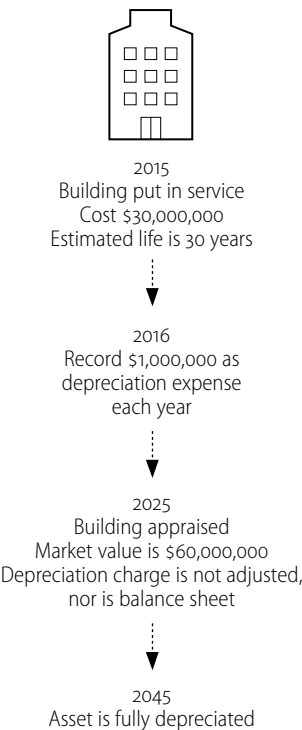
Buildings, major equipment, and computers are fixed assets. They last for a relatively long time and are disposed of when their productivity declines due to advances in technology, the high cost of repairs, and other reasons. The initial cost for the asset is recognized as an expense on the income statement over the expected useful life, rather than as a one-time expense. This is called *depreciation*.

Even though the market value of certain fixed assets, notably land and buildings, may appreciate dramatically, these increases do not appear on the financial statements and do not affect the depreciation calculation. Incidentally, the value attributed to land itself cannot be depreciated. The cash flows associated with financing a depreciating asset do not affect the depreciation charges. A separate accounting entry recognizes the purchase of the asset, which also may involve the creation of a liability or a cash outlay.



**Exhibit 4** illustrates the concept of depreciation. The cash flows associated with financing a depreciating asset are independent of the depreciation process. For example, a building that costs \$30 million, acquired in 2015 with \$5 million paid up front and \$25 million financed through a loan over a 20-year period, would be paid off by 2035 before the asset is fully depreciated in 2045.

**Exhibit 4. Recording Depreciation**



Source: Kaufman, Hall & Associates, LLC

# Accounting Reports

Accounting reports are generated on a regular basis to provide information on the hospital or health system’s activities and performance. Regular reporting is necessary for meaningful comparisons by different audiences (see **Exhibit 5**). Standard reports include:

- Statement of Operations and Changes in Net Assets (also referred to as the Statement of Profit and Loss or the Statement of Revenue and Expenses)
- Balance Sheet
- Statement of Cash Flows

Beyond these, each organization generally has a variety of detailed reports and exhibits. The principal reporting time period is the fiscal year. Some public reporting is done quarterly, as in the case of publicly placed financial transactions, most often bonds; internal reporting is done monthly or more frequently.

**Exhibit 5. Different Reports for Different Audiences**

Recipients	Period	Provided
Public	Annually*	Annual report (based on audit) includes: <ul style="list-style-type: none"><li>• Statement of Operations and Changes in Net Assets</li><li>• Balance Sheet</li><li>• Statement of Cash Flows</li><li>• Audit Certificate</li></ul>
Directors	Monthly or quarterly	Periodic package includes: <ul style="list-style-type: none"><li>• Statistics</li><li>• Statement of Operations and Changes in Net Assets</li><li>• Balance Sheet</li><li>• Statement of Cash Flows (often quarterly)</li><li>• Variances from Budget</li></ul>
Management	Monthly, weekly, and as required	Periodic package in greater detail: <ul style="list-style-type: none"><li>• Departmental analyses</li><li>• Product line analyses</li></ul>

\*Some public reporting is done quarterly, as in the case of publicly placed financial transactions.

Source: © Kaufman, Hall & Associates, LLC

# Reporting of Charity Care and Community Benefit

Since 2009, the Internal Revenue Service has required all tax-exempt hospitals to itemize charity care and other uncompensated community benefits in order to demonstrate compliance with the community benefit standard. The final reporting form—Schedule H, Form 990—also includes reporting of Medicare underpayment and patient bad debt, two important categories of uncompensated care.

Additional requirements were included as part of the Affordable Care Act (ACA) in March 2010. Each hospital organization has to meet four requirements on a facility-by-facility basis:

- Establish written financial assistance and emergency medical care policies.
- Limit amounts charged for emergency or other medically necessary care to individuals eligible for assistance under the hospital’s financial assistance policy.
- Make reasonable efforts to determine whether an individual is eligible for assistance under the hospital’s financial assistance policy before engaging in extraordinary collection actions against the individual.
- Conduct a community health needs assessment and adopt an implementation strategy at least once every three years.

Not-for-profit hospitals are facing, and can be expected to continue facing, increased scrutiny to justify their tax-exempt status.

Source: Internal Revenue Service, “New Requirements for 501(c)(3) Hospitals under the Affordable Care Act,” March 4, 2014 (available at [www.irs.gov](http://www.irs.gov)).



# How Hospitals Are Paid

## Payment Overview

Federal, state, and occasionally local regulatory agencies play a role in the hospital or health system's payment. When commercial insurers and employers are involved, payment is often negotiated, but all payment occurs within a structured framework.

For patients who are covered by governmental ("public") programs such as Medicare or Medicaid (see sidebar "Medicare and Medicaid in Brief"), government agencies that are the payers:

- Define the medical procedures for which there will be payment
- Assign weights to the procedures to adjust payment for varying factors (for example, acuity levels)
- Establish the mechanism for attaching dollar values to medical procedures
- Define exceptions

Private payers, usually insurance companies, will often follow the government's lead in using its framework for payment, which is predominantly the case-rate approach at this point in time, but is moving to value or capitated approaches.



## Medicare and Medicaid in Brief

### Medicare

Medicare is a federal program operated by the Centers for Medicare & Medicaid Services (CMS). Established in 1965 through the Social Security Act, Medicare is the national health insurance program for:

- People age 65 or older
- Some people under age 65 with disabilities
- People with end-stage renal disease (ESRD), which is permanent kidney failure requiring dialysis or a kidney transplant

Medicare is made up of two separate trust funds:

- Hospital Insurance (HI) Trust Fund, otherwise known as "Medicare Part A" for inpatient-related care. This is funded primarily through payroll and social security taxes.
- Supplementary Medical Insurance (SMI) Trust Fund, otherwise known as "Medicare Part B" for physician and other outpatient services and "Medicare Part D" for prescription drugs. This is funded primarily through federal revenues and premiums charged to the beneficiaries. Medicare Part C, otherwise known as "Medicare Advantage Plans," is offered by private companies approved by Medicare that offer Part A and Part B coverage under contractual arrangements with CMS, and usually Part D coverage.

Medicare provided coverage to more than 52.3 million Americans in 2013. Medicare reimbursement rates can change each October in response to the latest federal budget submitted in September of each year.

### Medicaid

Medicaid is a state-administered program, funded jointly by the federal government and state governments. Medicaid helps pay healthcare costs for certain individuals and families with limited income and resources.

The Medicaid system is not a carbon copy of the Medicare system. Each state sets its own guidelines regarding eligibility and coverage subject to federal rules and guidelines. Certain services must be covered by the states in order to receive federal funds; other services are optional and are elected or not by states. States cannot diminish the benefits stipulated by federal regulation, but they can make changes to the payment schedule and they can adopt *per diem* payment. Benefits for Medicaid recipients and Medicaid payments to providers vary from one state to another.

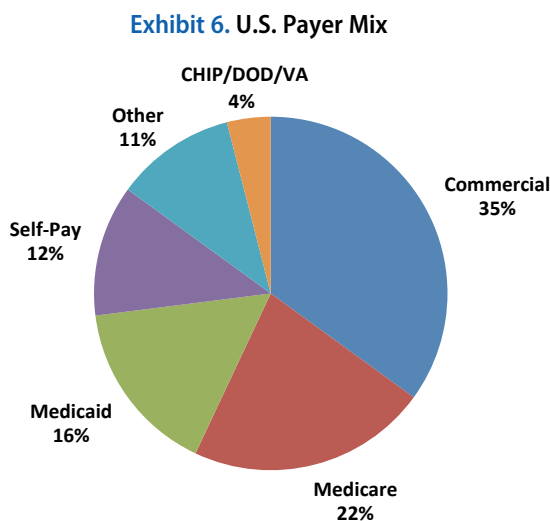
According to the National Association of State Budget Officers, Medicaid expenditures represented the largest proportion of all states' expenditures by function in 2014 (nearly 26 percent). When states have fiscal problems, they often need to reduce Medicaid expenditures.

People who qualify for both Medicare and Medicaid are said to be "dual eligible."

Hospitals receive payments from sources including:

- The federal government, which administers the Medicare program through regional Medicare intermediaries or carriers
- State and local governments, which administer the Medicaid program through approved carriers
- Private payers, including non-profit Blue Cross Blue Shield and commercial insurance companies, which offer a wide range of healthcare plans; these may include managed Medicare plans (Medicare Advantage) covering Medicare beneficiaries, and managed Medicaid plans, covering Medicaid beneficiaries
- Employers, which may contract directly with a provider or group of providers
- Patients and their families, who, if insured, typically bear part of the cost through deductibles and copayments, and if uninsured, bear the full cost of the services as “self-pay” individuals

**Exhibit 6** provides a look at national health expenditures by the source of funds—essentially the U.S. payer distribution or “payer mix.” Different for each hospital, payer mix often is critical to organizational profitability and can vary substantially by the type of market, geographic location, and specific services provided. Large health systems may have hundreds of private payers, some of which are profitable and some of which may *not* be profitable, depending on the level of payment received.



Source: Centers for Medicare & Medicaid Services, National Health Expenditures, by Source of Funds Table, 2013 data.

How profitable is it to provide services to a Medicare or Medicaid beneficiary compared to a privately insured patient? Payment-to-cost ratios for community hospitals indicate that neither Medicare nor Medicaid payments cover all of hospital costs for treating program beneficiaries. Although the payment-to-cost ratio for Medicare (85.9 percent) recently dropped below the Medicaid ratio (88.9 percent) for the first time in 20 years, Medicaid historically has provided lower payment-to-cost coverage. In contrast, private payers covered nearly 149 percent of cost, up from almost 132 percent 20 years earlier.<sup>3</sup>

Some observers maintain that some uncompensated or undercompensated care is financed by private insurance through “cost shifting.” This is defined as providers making up for losses they incur in treating uninsured patients or underpayment of costs by Medicare and Medicaid by charging higher prices to, and collecting higher payments from, privately insured patients—essentially shifting costs to these patients.<sup>4</sup>

**Exhibit 7** provides a look at the key funding sources for payers.

**Exhibit 7. Sources of Funds for Payers**

Payer	Administered By	Sources of Money
Medicare	Federal government	<ul style="list-style-type: none"><li>• Federally imposed Social Security payroll tax</li><li>• Participant premiums</li><li>• Patient deductibles and coinsurance</li></ul>
Medicaid	States and localities	<ul style="list-style-type: none"><li>• Federal government (at least 50%)</li><li>• State government (up to 50%)</li><li>• Local budgets, in some states</li></ul>
Commercial insurers, Blue Cross Blue Shield, HMOs, preferred providers	Payers, federal or state insurance exchanges, employers	<ul style="list-style-type: none"><li>• Employee and employer premiums</li><li>• Patient deductibles and coinsurance</li><li>• Individual premiums and deductibles</li></ul>

Source: Kaufman, Hall & Associates, LLC

It is hard to exaggerate the complexity of the current hospital payment environment and the processes required of hospitals to obtain payment for services. A brief review of how the payment system has evolved and is now developing might be helpful at this point.

3 Avalere Health Analysis of 2012 American Hospital Association Annual Survey data for community hospitals, American Hospital Association, *TrendWatch Chartbook 2014*, Table 4.4, p. A-35.  
4 T.A. Coughlin et al., “Uncompensated Care for the Uninsured in 2013: A Detailed Examination,” Kaiser Family Foundation, May 30, 2014.

## The Former Retrospective Payment System

Up through the early 1980s, hospital payment was based upon *per diem* costs as set by the hospital. A hospital calculated the cost of a patient day based on actual data viewed retrospectively and based its billed charge on this cost. It was a no-lose system; hospitals were sure to cover their expenditures. But under this *retrospective fee-for-service* system, healthcare was consuming an ever-increasing share of national expenditures. By 1980, health expenditures had soared to \$246 billion and healthcare's share of GDP was 12 percent.<sup>5</sup>

## The Prospective Payment System

As a result of political and economic pressures to control health-care costs, in 1983 a new set of legislative initiatives resulted in the prospective payment system (PPS) for Medicare. The PPS approach was quickly mirrored by state Medicaid programs in 1986 and private insurers in the mid to late 1980s.

### Diagnosis-Related Groups and ICD-10

The PPS had a built-in incentive for hospitals and other health-care organizations to control costs to some degree, but not the level of utilization as described later. Only prospectively approved costs were now covered, based on diagnosis-related groups (DRGs). DRGs comprise a patient disease classification system for inpatient cases that adjusts for acuity differences. If actual costs exceeded these, the hospital experienced a financial loss.

The prospective payment approach assumes that the degree of care required (case intensity) is a function of the patient's diagnosis and that payment to the provider should be based on the intensity of care and resources required by the specific diagnosis. Developed by a group of researchers at Yale University to help clinicians and hospitals monitor quality of care and utilization of services, the DRG concept is founded on the theory that patients in each category or DRG have the same clinical and resource needs.

Beginning in 1983, DRGs became the system used by Medicare to pay hospitals under the PPS. CMS currently uses approximately 750 Medicare severity-diagnosis related groups (MS-DRGs), which group patients together for billing purposes. Hospitals are paid a set fee for treating patients in a single MS-DRG category, regardless of the actual cost of care for the individual.

The MS-DRGs represent a smaller number of groupings of the 69,000+ codes in *International Classification of Diseases, Tenth Revision (ICD-10)*. This classification system is used to define potential diagnosis codes and consists of two parts:

- ICD-10-CM (Clinical Modification) for coding of diagnosis data across all sites of services
- ICD-10-PCS (Procedure Coding System) for coding of inpatient procedure only



Implementation of ICD-10 is scheduled to be effective October 1, 2015. The coding will affect diagnosis and inpatient procedure coding for everyone covered by the Health Insurance Portability and Accountability Act (see sidebar “Healthcare’s Alphabet Soup” on page 11), not just those who submit Medicare or Medicaid claims.<sup>6</sup> The change does not affect coding for outpatient procedures. ICD-10 codes generally map to MS-DRG codes.

Another system that may be relevant is the all patient refined-diagnosis related groups (APR-DRGs), which is used by many state Medicaid programs and some private payers for the non-Medicare population. It expands the basic DRG structure with additional subclasses.

### How Medicare Severity DRG-Based Payment Is Determined

MS-DRGs are based upon acuity and are “weighted,” according to the severity of the patient’s illness, which can indicate the intensity of care or services needed. Sicker patients require more of the hospital’s care and resources. A patient or “case” with a weight of 2.0 is deemed to be double the intensity and hence require double the costs (and payment) of a case with a weight of 1.0, which is the baseline weight. A particular hospital’s actual costs, however, are not a factor in this determination.

All things being equal, it is preferable to have more cases with higher weights. Even though these cases involve higher costs, they generate higher payment levels, which typically cover the extra costs. Hospitals strive to increase case mix intensity (i.e., attract patients with higher acuity levels).

Each hospital has a unique MS-DRG distribution. A review of the MS-DRGs that account for most of an organization’s activity

5 Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

6 Centers for Medicare & Medicaid Services, “The ICD-10 Transition: An Introduction,” eHealth University (available at [www.cms.gov](http://www.cms.gov)).



can be helpful (see **Exhibit 8**). For a particular MS-DRG, a hospital may have many, few, or no cases.

**Exhibit 8. MS-DRGs by Discharges for a Sample Hospital**

Number of Discharges	MS-DRG Number*	Description	Percent of Total Discharges
1,376	795	Normal newborn	16.7
1,098	775	Vaginal delivery w/o complicating diagnoses	13.4
161	194	Simple pneumonia and pleurisy age >17 w/o complications/comorbidities	2.0
150	391	Esophagitis, gastroenteritis, and misc. digestive disorders age >17 w/o complications/comorbidities	1.8
136	292	Heart failure and shock	1.7

\*First three digits of MS-DRG code.

Source: Kaufman, Hall & Associates, LLC

**Base Rate**

The base rate is what a hospital gets paid on a MS-DRG having an intensity of 1.0. CMS determines the base rate nationally and adjusts it for regional and/or local differences, such as higher wage rates. In the case of teaching hospitals, there are adjustments to help them cover the costs involved in medical education.

Each patient is assigned a MS-DRG that represents that patient’s diagnostic condition and has a service intensity weight. That weight is multiplied by the dollar value of a MS-DRG with a weight (intensity) of 1.0 (the base rate). The result is the dollar value of the specific case. **Exhibit 9** illustrates a dollar value of a specific case to be \$10,000, assuming a base rate of \$5,000.

**Exhibit 9. Determining the Payment Level for a Particular Case**

If the MS-DRG weight is 2.0	And the base rate or the value of a case with a weight of 1.0 is \$5,000	Then the value of a specific case is $2.0 \times \$5,000 = \$10,000$
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Source: Kaufman, Hall & Associates, LLC



**Modifiers**

Modifiers to the standard base rate adjust the level of payment and are added for specific sites or situations, such as teaching hospitals, sole community hospitals, exceptionally high-cost cases (outliers), and others. Recently CMS has introduced penalty modifiers for hospitals with high rates of preventable readmissions as well as modifiers based on results of the CMS Value-Based Purchasing program, as described later.

**Length of Stay**

Length of stay (LOS) is critical to hospital payment under the PPS. Used to measure the duration of a single episode of hospitalization, LOS is measured on a per patient basis in days, and calculated by subtracting day of admission from day of discharge. *Average length of stay* (ALOS) is the average number of days patients stay in a facility. It is calculated by dividing the total number of days *all* patients stayed in the hospital by the number of patients admitted during the same time period.

Hospitals, employers, and others commonly use ALOS as a key indicator of hospital efficiency and utilization. Given rising healthcare costs and pressures to reduce costs, hospitals are under increasing pressure to reduce ALOS. In 1975, ALOS in community hospitals nationwide was about 8 days; by 2012, ALOS had dropped to 5.4 days.<sup>7</sup>

Length of stay has cost, revenue, and quality implications. Consider what happens when a hospital’s management team establishes reduced LOS as an operational goal. At the same time, the management team also plans to achieve the same number of discharges and the same level of overall patient care activity with fewer beds. The team reduces the number of beds, and staffing commensurate with the bed reduction. Patients must be “moved through” the hospital at greater speed, which thereby will reduce ALOS.

When hospitals were paid on a cost *per diem* basis, keeping a patient longer meant more revenue. This is no longer the case. Prospective or case rates are based on the LOS deemed appropriate to the case. Thus, if a patient is hospitalized for longer than the LOS identified as appropriate to the case, the case rate payment is unlikely to cover the complete costs incurred by the hospital. In addition, because the bed is filled, the hospital may be foregoing the revenue of another patient admission, perhaps one with higher-acuity needs and a higher case rate.

Changes in LOS should be considered within the context of the case mix index (CMI), which is the overall severity measure of patients. If the overall proportion of patients that are sicker increases, it will be difficult to reduce LOS. However, reducing LOS and thereby discharging patients sooner is an ever-present pressure for all hospitals.

**Early Managed Care and Capitation**

Spurred by the Health Maintenance Organization Act of 1973, managed care and other forms of prepaid healthcare offered by HMOs, private insurers, and employers drove cost reductions in the late decades of the 20th century.

7 American Hospital Association, *TrendWatch Chartbook 2014* (Utilization and Volume, Chart 3.5).



*Managed care programs* are insurance plans intended to reduce unnecessary healthcare costs through a variety of mechanisms, including:

- Economic incentives for physicians and patients to select less costly forms of care
- Programs for reviewing the medical necessity of specific services
- Increased beneficiary cost sharing
- Controls on inpatient admissions and lengths of stay

- The establishment of incentives for outpatient surgery
- Selective contracting with healthcare providers
- The intensive management of high-cost cases<sup>8</sup>

The sidebar “Healthcare’s Alphabet Soup” defines some of the many acronyms encountered in managed care and recent legislation.

### Healthcare’s Alphabet Soup: Selected Definitions

<b>ACO</b>	<b>Accountable care organization.</b> An ACO is a legally structured arrangement between hospitals, primary care and/or specialty physicians, and other providers (such as post-acute care or inpatient rehab facilities, home health care, skilled nursing) to coordinate and deliver efficient and effective care for a defined patient population for a specified period of time. An ACO assumes accountability for improving quality and slowing the growth of costs.
<b>CI</b>	<b>Clinical integration.</b> The purposeful fostering of collaboration among independent doctors, other providers, and hospitals in a way that increases both the quality and efficiency of patient care.
<b>HIPAA</b>	<b>Health Insurance Portability and Accountability Act.</b> Enacted in 1996, HIPAA intends to improve the portability and continuity of health insurance coverage in the group and individual markets; combat waste, fraud, and abuse in health insurance and healthcare delivery; simplify the administration of health insurance; and other purposes. Its Privacy Rule regulates the use and disclosure of “protected health information” held by “covered entities,” a key consideration for hospitals and health systems.
<b>HMO</b>	<b>Health maintenance organization.</b> A managed care plan that integrates financing and delivery of a comprehensive set of healthcare services to an enrolled population. HMOs may contract with, directly employ, or own participating healthcare providers. Enrollees are usually required to choose from among these providers and in return have limited copayments. Providers may be paid through capitation, salary, <i>per diem</i> , or pre-negotiated fee-for-service rates.
<b>IPA</b>	<b>Independent practice association.</b> An entity that contracts with individual physicians or small physician groups to provide services to HMO or other plan enrollees at a negotiated per capita or fee-for-service rate. Physicians typically maintain their own offices and can contract with other HMOs and see other patients.
<b>PHM</b>	<b>Population health management.</b> PHM occurs when a healthcare system or network of providers works in a coordinated manner to improve the overall health, health outcomes, and well-being of patients across defined care settings under risk-bearing arrangements.
<b>PHO</b>	<b>Physician-hospital organization.</b> An organization that contracts with payers on behalf of one or more hospitals and affiliated physician groups to provide healthcare services. The PHO also may undertake utilization review, credentialing, and quality assurance. Physicians typically retain ownership of their own practices and maintain significant business outside the PHO.
<b>POS</b>	<b>Point-of-service.</b> A managed care plan that offers health plan enrollees the option of using network or non-network providers at the time care is needed; enrollees typically have significantly larger copayments for selecting the latter.
<b>PPACA</b>	<b>The Patient Protection and Affordable Care Act, or ACA.</b> Signed into law in 2010, the ACA aims to increase the quality and affordability of health insurance, lower the uninsured rate by expanding public and private insurance coverage, and reduce the costs of healthcare for individuals and the government. Its primary mechanisms are mandates, subsidies, and insurance exchanges.
<b>PPO</b>	<b>Preferred provider organization.</b> A health plan that offers a network of providers whose services are available to enrollees at lower cost than the services of non-network providers. Access is broader and looser than with an HMO; enrollees may go to an out-of-network provider for an additional cost and self-refer to any network provider at any time.

Sources: American Hospital Association, *Accountable Care Organizations: AHA Research Synthesis Report*, June 2010; T.J. Babbo et al., “Clinical Integration: A Physician and Hospital Strategy for Better Quality, Enhanced Competition, and Collective Contracting”; University of Washington School of Public Health and Community Medicine, *Glossary of Health Care and Health Care Management Terms*; and G. Hill et al., “Population Health Management—Hill’s Handbook to the Next Decade in Healthcare Technology,” Citi Research, May 14, 2013.

8 “Managed Care Programs,” National Library of Medicine, National Center for Biotechnology Information (available at [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)).

Offered through HMOs, preferred provider organizations, and other types of entities, managed care plans rapidly gained market share in recent decades. In 1988, 73 percent of insured workers had traditional fee-for-service indemnity insurance, with 16 percent enrolled in HMOs and 11 percent in PPOs. By 2014, less than 1 percent of covered workers had conventional insurance, 13 percent had HMO coverage, and PPOs had captured 58 percent of workers.<sup>9</sup>

Managed care changes the complexion of accounting. Payment rates in a managed care world can take many forms, including *per diem*, fee-for-service, MS-DRG-based, and capitation. Managed care plans may use one or all of these payment approaches—in effect, a payment is negotiated and agreed to contractually between the entity offering the managed care plan and the hospital.

Under a capitated payment arrangement, the hospital gets paid the same amount per member per month, regardless of whether that covered individual uses the organization's services. The acuity profiles of enrolled populations must be considered. For example, given its age profile, the Medicare population has higher acuity and use rates than the non-Medicare population and therefore a higher payment. If covering the Medicare population under a Medicare Advantage program, which involves a managed care approach as described later, the hospital or health system forecasts that it will have a defined level of sickness (acuity) across the entire group of covered subscribers. In effect, the organization goes “at risk,” accepting responsibility for delivering an uncertain quantity of medical service for a fixed cost.

## Major Types of Payment

**Capitation:** Pays providers a fixed amount for each person served (“enrollee” or “member”), often on a per-member-per-month (PMPM) basis, regardless of the actual number or nature of services provided. Global capitation payments cover all patient services, while partial capitation payments cover only a specified portion of services.

**Case-based (MS-DRG) payment:** Pays providers based on the patient’s acuity level and diagnosis, including comorbidities.

**Case rates:** Also known as episode-of-care payment or bundled payment, providers are paid a fixed amount for services required by a patient during an entire episode of care.

**Fee-for-service payment:** Pays the provider a specific fee on completion of a specific service, historically often without terms related to outcomes, quality, or cost performance.

**Per diem payment:** Provides fixed daily payments that do not vary with the level of services used by the patient.

**Value-based payment:** Provides payment based on indicators of value, such as patient health outcomes, efficiency, and quality.

Source: Kaufman, Hall & Associates, LLC



<sup>9</sup> The Kaiser Family Foundation and Health Research & Educational Trust, *Employer Health Benefits—2014 Annual Survey*.

## The Impact of an Emerging New Business Model

Due to unsustainable spending for U.S. healthcare and national and state fiscal challenges, the healthcare industry has started a transition to a value-based business model from an activity- or volume-based, fee-for-service model that has been in place since the 1960s. The new model is profoundly different than the traditional model in almost every respect (see **Exhibit 10**). The value-based model will shift how providers deliver and are paid for services, as described in this section.

The transition is being accelerated by healthcare reform legislation—specifically the implementation of the Affordable Care Act of 2010—and change occurring independently in the private insurance market. A description of key developments follows.

**Exhibit 10. Elements of Change in the Old/New Business Model**

Element of Change	Today	Future
Care focus	Sick care	“Healthcare,” wellness and prevention, disease management
Care management	Manage utilization and cost within a care setting	Manage ongoing health (and optimize care episodes)
Delivery models	Fragmented/silos	Care continuum and coordination (right care, right place, right time)
Care setting	Office/hospital	Ambulatory, home, virtual
Quality measures	Process-focused, individual	Outcomes-focused, population-based
Payment	Fee for service	Value-based (outcomes, utilization, total cost)
Financial incentives	Do more, make more	Perform better on measures, make more
Financial Performance	Margin per service, procedure (bed, physician, etc.)	Margin per life

Source: Kaufman, Hall & Associates, LLC

### Employer and Insurer Market Transformation

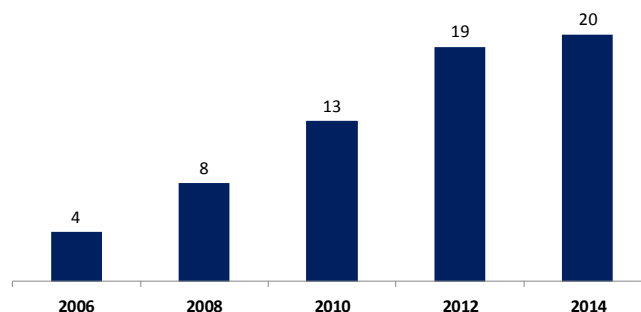
Increasingly unwilling to shoulder risk for rising costs, many employers are starting to shift their employees from “defined-benefit” health plans into “defined-contribution” health plans. Under defined-contribution plans, an employer contributes a fixed amount toward each employee’s health insurance. Each employee determines how and where to spend the money on healthcare coverage. An employee who opts for a more expensive plan will have to pay for the incremental cost. Typically, individuals select their health insurance and provider network from an array of options called *consumer-directed health plans* (CDHPs).

High-deductible health plans (HDHPs) with a savings option are a related product innovation in the insurance market. The plans are offered under both traditional and defined-contribution structures. Employees contribute to a health savings account (HSA) on a pre-tax basis, from which they draw funds to pay out-of-pocket expenses below the deduction threshold.

New in recent years, point-of-service (POS) plans and high-deductible health plans emerged to capture 8 percent and 20 percent of market share respectively in 2014, with HDHPs up from 4 percent in 2006<sup>10</sup> (see **Exhibit 11**). A recent survey indicated that 32 percent of large employers are offering only CDHPs as a plan option in 2015.<sup>11</sup>

Additionally, numerous large employers are using “private exchanges” as a way to offer employees a broader choice of plan and coverage options, while capping the employer’s benefit subsidies through defined-contribution plans.

**Exhibit 11. Percent of Workers Enrolled in High-Deductible Health Plans with a Savings Option**



Source: Kaiser Family Foundation/Health Research & Educational Trust, *Employer Health Benefits, 2014 Annual Survey*.

*Direct contracting* by self-insured employers with healthcare providers is another employer-driven innovation that is changing competitive dynamics in numerous markets. Frustrated by an inability to control healthcare costs, some major employers are creating narrow networks of contracted providers for high-end services.

For example, one retailer, which has more than 2 million employees, steers employees who need heart, spine, or transplant surgeries to its narrow network comprised of six leading hospitals and health systems, with which it has bundled-fee arrangements. Beneficiaries who use one of the designated organizations incur no out-of-pocket costs; those who decide to go elsewhere have significant copayments and deductibles.

10 The Kaiser Family Foundation and Health Research & Educational Trust, *Employer Health Benefits, 2014 Annual Survey*.

11 National Business Group on Health, “U.S. Employers Changing Health Benefit Plans to Control Rising Costs, Comply with ACA, National Business Group on Health Survey Finds,” August 13, 2014.



### The Rise of Consumerism in Healthcare

The critical element of these insurance innovations is the behavior change that consumers exhibit with new and different incentives. Under traditional insurance products, consumers have little to no incentive to control costs since they have no economic responsibility for payments to providers beyond the copays and deductibles. In fact, the consumer's incentive is just the opposite.

In contrast, individuals with HDHPs assume economic responsibility for payments to providers, and therefore have incentives to control unnecessary utilization and costs. Technology-enabled consumers are making decisions about their healthcare "purchases" just as they would other purchases, accessing cost and quality data on their smartphones 24/7/365. Such consumers are moving the healthcare marketplace from opacity to transparency with lightning speed. This has significant implications for hospitals and health systems (see sidebar "The Transparency Imperative").



### The Transparency Imperative

The push to make hospital and other provider prices and quality metrics public or "transparent" is widespread and growing, fueled by federal and state governments, employers, insurers, and consumers. The transparency imperative will continue to increase as consumers assume higher out-of-pocket costs through high-deductible insurance plans. These plans incentivize consumers to compare price and quality, among other factors.

Price transparency requires hospitals to provide the patient, employers, and other stakeholders with information on the quality and costs associated with a service prior to the provision of the service. The goal is to equip patients with meaningful information about their financial obligations and data that will enable them to compare performance and prices between hospitals and other facilities. For payers and employers, the goal may be reaching an agreed-upon competitive price for an agreed-upon level of quality performance.

Hospitals should have in place a well-defined system for providing clear answers to questions, particularly about the cost of services. Patients generally want to know their out-of-pocket costs based on their specific health plan benefit design. Online price estimator tools, along with accurate cost and quality data, are increasingly common. Well-funded companies are providing employers, health plans, and consumers with tools designed to direct patients to low-price providers. These tools offer near-instant access via smartphone to comparative quality and cost information and available providers.

Additionally, Medicare releases data on average hospital-specific charges and payments for common inpatient and outpatient services. Quality performance data of physicians, hospitals, home health agencies, and other providers also are available on its Web site ([medicare.gov](http://medicare.gov)). Various other organizations offer healthcare price and quality data searchable by city and other criteria. Data transparency has exploded.

Source: Kaufman, Hall & Associates, LLC

### Public Exchanges and Medicaid Expansion

The ACA's mandate related to public exchanges as a means of offering insurance is accelerating the movement to defined-contribution health insurance. Exchanges are marketplaces where individuals or businesses can comparison shop and purchase healthcare coverage. Their basic idea and structure closely resemble defined-contribution health plans, and they often use HDHPs paired with health savings accounts.

Whether operated by a state, the federal government, or a shared state/federal arrangement, public health insurance exchanges started providing coverage in January 2014 for individuals who are uninsured, underinsured, or self-insured. In

the first year, more than 8 million individuals of the 13.5 million deemed eligible, selected a health plan through the exchange.<sup>12</sup>

The ACA also expanded Medicaid eligibility, providing federal funds to states to cover the cost of the newly insured in the first three years, and help cover in years further out. Enrollment growth across all states averaged 8 percent,<sup>13</sup> increasing the total number of Americans—approximately one in every five—covered by Medicaid at last count.<sup>14</sup>

### Narrowing Networks

By design, insurance products offered through both public and private exchanges may limit the number of providers in the network, narrowing patients' choice of hospitals and physicians to those that offer what the plan administrators define to be quality services at lower costs.

The Department of Health and Human Services does require qualified health plans sold through the public exchanges to maintain networks that are sufficient in number and types of providers to ensure that all services will be accessible to enrollees without unreasonable delay. During the initial enrollment period in the public exchanges, individuals gravitated toward plans with lower premiums (bronze and silver plans) with a more limited network of providers. The expectation is that, over time, narrow networks will represent a relatively larger percentage of plans available on the exchanges, as consumers choose these plans over broader networks with a higher cost.

Now and during the next five or 10 years, hospitals may find themselves with or without the option of inclusion in the exchange-based networks that cover patients in their region. Hospitals that can compete along the required quality/cost dimensions may sign on to narrow networks, accepting sometimes significant revenue discounts with the hope of increased volume. Hospitals not willing to take steep discounts—perhaps due to the precedent the discount would set (and the challenge of ever recovering from that discount)—may opt out of network participation. Hospitals not able to meet quality and cost requirements, or hospitals not moving quickly enough to beat an aggressive competitor to the network, may find themselves excluded from network participation.

With increasing numbers of patients covered by exchange plans and their narrow-network offerings in coming years, network exclusion could have a significant negative impact on hospital performance.

### Commercially Managed Medicare and Medicaid

Finally, through the Medicare Advantage (MA) and managed Medicaid programs, commercial insurers are making significant inroads into coverage traditionally provided by government programs.

Since 1990, the Medicare and Medicaid programs have encouraged beneficiaries to move from fee-for-service to managed care plans. Qualified managed care organizations (MCOs) negotiate a per capita payment per enrollee for both Medicare and Medicaid programs and agree to deliver medical services to enrollees as specified.

Approximately 16 million seniors (30 percent of the Medicare population) were enrolled in the 2,000+ MA plans available nationwide in 2014<sup>15</sup> (see **Exhibit 12**). These plans offer choice among privately administered plans, with a variety of coverage levels and out-of-pocket costs. Enrollment is voluntary. Most enrollees are in HMO and PPO plans. Utilization and cost are typically much more aggressively managed in HMO plans.

**Exhibit 12. Enrollment in Medicare Managed Care (Medicare Advantage) Plans**

	Covered Population (millions)	Managed Care (millions)	Percentage Managed Care
1990	34	1.3	4
1996	38	4.9	11
2003	41	4.6	11
2008	44	8.4	19
2014*	53	16.0	30

\*Approximate numbers

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary; Gretchen Jacobson et al., "Medicare Advantage 2015 Data Spotlight: Overview of Plan Changes," Kaiser Family Foundation, Issue Brief, December 2014.

The trends are similar with the Medicaid program. States that administer the Medicaid program have chosen to rely on MCOs to deliver coverage to their Medicaid populations because MCOs have offered guaranteed access to comprehensive benefits at a predictable cost. States can make managed care enrollment voluntary or obtain a waiver from CMS to mandate enrollment. In the most recently reported year, 42.4 million Medicaid beneficiaries were enrolled in managed care plans, representing about 74 percent of the Medicaid population.<sup>16</sup> Greater use by states of managed care Medicaid is likely to continue.

### Delivery Changes for Providers

The new business model is bringing delivery system changes. Within the model, strategic and financial success for hospitals and health systems will likely *not* be achieved through growth

12 Kaiser Family Foundation, State Marketplace Statistics.

13 Robin Rudowitz et al., "Implementing the ACA: Medicaid Spending & Enrollment Growth for FY 2014 and FY 2015," Kaiser Family Foundation, Issue Brief, October 2014.

14 Kaiser Family Foundation, "Medicaid Moving Forward," June 17, 2014.

15 Gretchen Jacobson et al., "Medicare Advantage 2015 Data Spotlight: Overview of Plan Changes," Kaiser Family Foundation, Issue Brief, December 2014.

16 Kaiser Family Foundation, Total Medicaid Managed Care Enrollment.

of the volume of services provided. Rather, success would be attained through positive patient outcomes at acceptable value, defined with quality and cost dimensions. To achieve the goal of highest quality for lowest cost, patients will need to receive services in the right place. This will challenge hospitals and physicians to coordinate patient care along the provider and care continuum in more cost-effective and appropriate ways. Key delivery system changes are described next.

### Population Health Management

The new model's goal for healthcare providers is to manage the health and healthcare needs of a defined population over a specific period of time. This approach, called "population health management," differs from the traditional inpatient-centric sick care focus of hospitals and health systems. It centers on keeping people healthy, and when they need care, meeting care needs in the most appropriate setting.

### Care Management

To demonstrate value to the market as part of a population health management construct, hospitals will need to ensure comprehensive care management for the population they cover. Care management includes development of healthy behaviors by the population, management of chronic diseases in home and community settings, treatment of acute illnesses in hospitals, and provision of services in post-acute and home settings. For success with care management, hospitals and health systems will need a clinically integrated network of physicians and post-acute care facilities.

As part of care management, *case management* often is used for individual patients with specific diagnoses and those who require high-cost or extensive healthcare services. It is particularly prevalent with payment structures that involve the hospital's incurrence of risk for the net gain or net loss after covering care-provision costs.

### New Payment Models for Providers

The evolution of the delivery system will be driven by payment mechanism changes. A wide range of value-based payment alternatives are emerging as payers, purchasers, hospitals, and other providers gain experience in reducing healthcare costs and increasing quality and access. A few are highlighted here.

### Accountable Care Organizations

ACOs are designed to involve the provider in managing the health of a defined population with some level of assumed risk for the care provided, as established through the payment structure. Different types of structures exist. For example, the Medicare Shared Savings Program ACOs, which uses the current fee-for-service payment system, provides incentives to improve quality and reduce costs through a shared savings (and risk) program.

For *shared savings contracts* with *upside only* arrangements, hospitals and health systems are incentivized to decrease service units while meeting quality requirements. Revenues include a "savings" payment for efficiencies and the agreed-upon price

multiplied by the service units provided. Savings depend on providers' ability to control volume and mix. To achieve a net gain, providers must lower variable expenses and service units, and the share of savings generated must offset the lower revenues from the decreased number of service units.

For *shared savings contracts* with *upside and downside* arrangements, which introduce risk, providers again are incentivized to decrease service units while meeting quality requirements. Revenues include a savings payment for efficiencies, or a deduction for a lack thereof, and the agreed-upon price multiplied by the service units provided. Savings or loss depends on providers' ability to control volume and mix. To achieve a net gain, providers must lower variable expenses and service units, and the share of savings generated must offset the lower revenues from the decreased number of service units. Providers unable to lower the cost of providing care will experience loss of revenue.

Other ACOs, offered by commercial insurers, may have a fixed price per covered life, for example, and the providers are responsible for financial gain or loss of caring for a defined population.

For *capitation contracts*, providers receive fixed revenues on a per-member-per-month basis to pay all costs of providing specified care. Higher utilization by the covered population results in lower profits and higher losses. To achieve a gain, providers must keep expenses and utilization at the targeted levels.

### Pay for Performance

Both Medicare and commercial payers are using pay-for-performance programs, which are based on the assumption that quality improvement will be enhanced by a closer alignment of performance with financial rewards. Payers measure hospital performance against predetermined metrics, and, in addition to negotiated or established base payment rates, distribute bonuses to participants based on performance relative to those metrics.

### Bundled Payment

Under a bundled payment arrangement, the hospital gets paid based on the estimated costs of care associated with a specific condition as determined annually or within a set timeframe. The hospital may assume responsibility for "upstream" costs, such as post-acute care following a stroke.

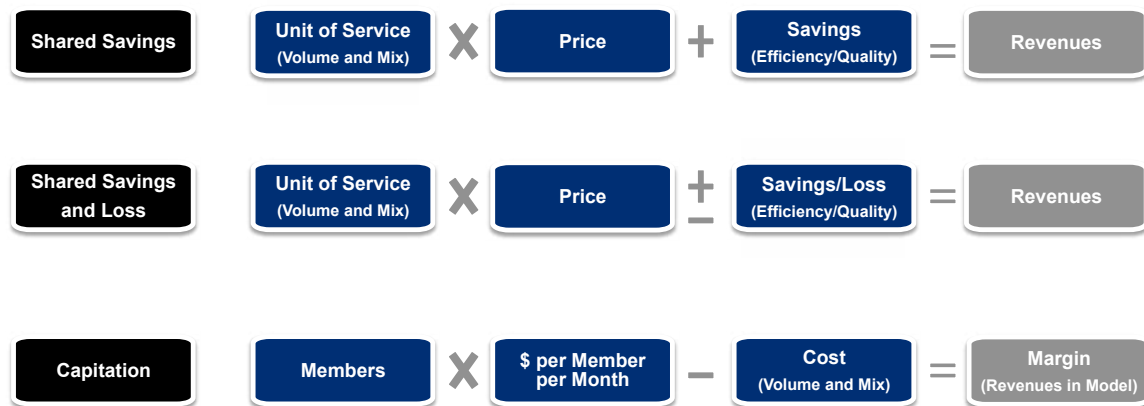
### Other Key Medicare Programs

Under the Affordable Care Act, CMS launched numerous programs with payment impact aimed at aggressively moving toward paying providers for high performance rather than volume of services. These included:

- **The Hospital-Acquired Condition Reduction Program:** This program penalizes hospitals that fall within the worst-performing comparative quartile, based on measures of adverse events occurring during hospital stays, such as pressure ulcers, pulmonary embolisms, and certain types of healthcare-associated conditions.<sup>17</sup>

17 M. McKinney, "Hospital-Acquired Conditions Mean Medicare Penalties for 700-Plus Hospitals," *Modern Healthcare*, December 18, 2014.

**Exhibit 13. The New Math of New Payment Models**



Source: Kaufman, Hall & Associates, LLC

- **Readmissions Reduction Program:** This program penalizes hospitals, through overall payment reduction, for high rates of patients who are readmitted within 30 days of discharge with the same diagnosis as their previous admission.
- **Value-Based Purchasing Program:** This program links Medicare payment for inpatient services to quality-of-care measures and, in the future, is likely to include efficiency and cost-reduction measures as well.<sup>18</sup>

These programs can significantly reduce hospital payments and should be front and center on management and governance radar screens. As shown in **Exhibit 13**, new math is required for most of the arrangements, potentially with significant bottom line impact for hospitals.

### Assessing the Financial Impact

Boards and executive teams must discuss on an ongoing basis what it will take to move their organizations toward success under the value-based system. How fast the organization should move, or may be forced to move, and how much the transition might cost are important considerations.

Organization-wide strategic cost reduction and integrated strategic-financial planning are required. Associated risk and scenario analyses related to payment arrangements as part of the planning process might appropriately include variables such as:

- The expected number and relative proportion of patients covered under various payment mechanisms
- Payment levels by payer
- Capital and cash-flow requirements for value-based infrastructure, including physician strategies, analytic resources, case management, and other major initiatives

This robust planning process enables healthcare leaders to determine the financial risks associated with various levels and speeds of organizational transformation.

The nature and magnitude of required challenges and change to organizational cost structure may be unprecedented. Pursuit of traditional opportunities to improve the efficiency of existing operations or services in the areas of labor costs, non-labor costs, and revenue cycle management is imperative, but business restructuring initiatives offer the biggest opportunities for major savings. These include redefinition of businesses and services offered and right-sizing of the distribution of services and required facilities across an organization's service area. Capital investment and expenditure savings can be significant.<sup>19</sup>

### Accounting Challenges: Retrospective Review

Returning to discussion of accounting fundamentals in this new environment, when is revenue actually revenue? Recognizing revenue in the period it actually was earned (i.e., when the patient was treated) is a difficult process in hospital accounting, as described earlier in this publication. Medicare and Medicaid's right to retrospectively review, challenge, and adjust the payment of a previous period (a specific year) increases the complexity of the accounting challenge.

Medicare and Medicaid's retrospective review process can be described as follows:

- Reimbursement rates for concluded patient activity can be reevaluated in the future.
- The amounts involved in the reevaluation are often material and can significantly affect the organization's prior reporting period results. With a few exceptions, however, outside auditors will not change prior-period accounting statements, and the penalty will appear in the year in which it is levied.

<sup>18</sup> CMS, Hospital Value-Based Purchasing (available at [www.cms.gov](http://www.cms.gov)).

<sup>19</sup> For more information, see J.H. Sussman and M.E. Grube, *Strategic Cost Transformation for Post-Reform Success* (white paper), The Governance Institute, Summer 2014.

- The Recovery Audit Contractor (RAC) program, created through the Medicare Modernization Act of 2003, is a material consideration for hospitals. The program is designed to extract waste from the Medicare system by identifying and recovering improper payments through retrospective reviews of fee-for-service claims, a process known as “claw back.”
- These after-the-fact changes affect both accrual and cash results, but the effect on cash may not coincide with the accrual effect.

Medicare and Medicaid use fiscal intermediaries (FIs) to conduct audits. These audits can lead to claims against (or less frequently, payments to) hospitals and health systems. The period reviewed by Medicare and Medicaid frequently includes several years. For example, RAC auditors and FIs may review the last three years of provider claims and cost reports.

### **Audits and Final Settlements**

Medicare and Medicaid require hospitals and health systems to submit a cost report each year, covering the previous year period. The cost report contains large amount of financial and quantitative data collected and presented by the organization.

Following an analysis of this cost report, Medicare or Medicaid’s FI may conduct investigations or audits of the base rate used by the hospital, and of medical records held by the organization.

Investigatory situations related to the latter, which can be extensive, fall into two broad categories: the coding of cases and documentation. The FI may indicate that the assignment of MS-DRGs was faulty or that documentation was deficient and does not justify the payment claimed and obtained.

If an audit results in an adverse rate revision for the health-care organization, the accounting effects can be significant. Because the organization overstated revenue in a prior year, it must refund the payer the difference between the amount the hospital was paid and the new rate.

How do organizations present this “correction” on financial statements? External auditors have strong convictions about adjusting prior-period results to reflect required revisions and should be consulted by the organization.

### **Final Thoughts on Payment**

The hospital payment environment is constantly changing, making it difficult to generalize at this time about the types of contractual arrangements that will yield the best financial results for hospitals. Accounting challenges associated with contract types and required payer adjustments abound. The time-honored accounting objective of matching revenues and expenses is becoming increasingly difficult, particularly in the emerging era of capitated and other risk-bearing contractual arrangements.



# Developing the Budget and Monitoring Financial Performance

## Budgeting

How do board members monitor hospital performance as the year progresses? The principal and essential tool is the budget, which is a forecast of *revenue* and *expenses* describing a hospital's specific financial goals for each account or line item for the forthcoming year.

Throughout the year, the budget is presented as a set of values on a report typically called a "budget variance report" (as shown in Exhibit 15 on page 24). A variance column provides the difference between actual results by category and the budget for the category. These variances are available for analysis whenever the board reviews financial information. Exhibit 15 illustrates the best practice of calculating variances on a flexible basis, which adjusts for actual vs. expected volume results.

Is budgeting planning? It is. However, the terms *long-range planning*, *financial planning*, and *strategic planning* usually mean something else. A budget has a one-year time horizon. It reflects objectives that are achievable in the short-term. Long-range plans have longer time horizons—three to five years, and perhaps longer. They reflect future plans and goals. For example, a long-range plan might include the addition of a major new service three years from now or a new facility for which construction will begin five years from now. The planning will define long- and short-range operating targets to meet key credit goals while supporting strategic investments.

How are the *budgeting* and *planning* processes connected? The current budget is a step toward the fulfillment of the long-range plan. However, the cumulative effect of five budgets does not equate to a five-year strategic plan. Why not? Frequent changes experienced over a five-year period, including assumptions, circumstances, and short-run results, alter the cumulative effect.



All hospitals prepare budgets, *and* all hospitals should prepare formal long-range plans. Organizations should have a formal ongoing planning process that results in a written data-based plan, which identifies where the organization wants to be in the future and how it plans to get there. According to the capital markets, including the agencies that rate the credit of healthcare organizations, the preparation of long-range financial plans that integrate strategic investments is a critical core competency for healthcare executives.

Given the availability of easy-to-use contemporary software tools, the integration of strategic and financial plans is both practical and desirable. So too is the integration of the annual budget with the strategic, capital, and financial plans. Strategic planning should be integrated with long-range plans and annual budgets, whether as one plan or a strategic plan tied to a financial and capital plan.

## Budget Development, Adjustment, and Analysis

With an integrated approach to financial management, the specific targets of the financial plan are used to "drive" initial budget development, in effect, rolling the financial plan down through the organization. Initiatives in the longer-range financial plan may produce results in the current budget year, and thus are reflected in the current budget.

In today's environment, completing the budget in a timely manner is often difficult. Uncertainty about volume trends, payment arrangements, and rates may delay the process. Budgeting requires attention from budget professionals and, due to its grass-roots nature, considerable time and attention from staff at all levels. A budget cannot be imposed arbitrarily on individuals who must operate within its constraints. Department heads must participate in budget development and implementation. In short, budgeting is complex, and often either does not get the time it deserves or consumes a very large amount of staff time. In the minimum, submitting an annual budget in a timely manner is critical.

Numerous changes in a hospital's operating environment may appear to require a budget adjustment. However, annual budgets generally are changed only when significant changes occur early in the budget year. Thereafter, financial management must advise the board, as necessary, that budgeted results will not be achieved, and use the interpretation of variances to highlight the changes. The use of a budget allows a variance to be noted in a revenue and expense statement.

The analysis of a variance (or "variance analysis") quantifies the differences between actual and budgeted values for a resource, revenue, or service. Revenue variances usually involve the largest dollar amounts and deserve the greatest attention. Board members and physician leaders do not need to learn how to perform variance analysis. Rather, they need to know that this

process can provide answers to questions that arise when results are monitored against budget. Based on the size of the variance, reporting to managers likely should be weekly (and perhaps even daily, as appropriate), and monthly to the board, or more frequently, if appropriate.

Two best-practice alternatives or supplements to annual budgeting include flexible budgeting and rolling forecasting. Both enable more effective indication of changes to the budget and analysis of variances.

### Flexible Budgeting

Flexible budgeting is a process that can be used on a monthly basis to more effectively measure budget-to-actual variances. The flexible budget answers the question, “If we had budgeted volumes perfectly, what variances would be left?” Flexible budgeting involves creating a budget in which the budgeted rate per unit is multiplied by the actual volume.

Many hospital line items or expense categories depend upon the level of activity. For example, the number of meals served depends upon patient days; surgical supplies depend upon the number and type of surgeries.

To develop accurate budgets using currently available budgeting software, organizations set the expected level of activity for a particular department based upon their best estimates as to what the level of activity will be on a month-by-month basis. The actual activity level and hence expense are unlikely to ever be exactly the same as the estimate. “Flexible budgeting” deals properly with this condition. The budget varies based on the level of activity and its actual unit cost for the reported period. Software is essential for such budgeting and volume-adjusted variance reporting.

A major part of the budget represents the compilation of departmental data provided by department managers or directors. Departmental managers must have the opportunity on a regular basis to review their departments’ performance. They assume responsibility for the results, and through a comparison of actual values to budgeted values, can best explain why a variance may be present. Flexible budgeting ensures that the managers see results that reflect the actual level of department activity for each expense item. This information provides guidance on where managers should target their interventions, most frequently, to reduce costs.

### Rolling Forecasting<sup>20</sup>

In today’s rapidly evolving healthcare environment, many healthcare organizations are using *rolling forecasting* to ensure that they are able to identify financial performance gaps continuously and quickly “course correct” with operating changes that align with their long-range plans. Some organizations are using rolling forecasting instead of an annual budgeting process, while others are using it to supplement their annual budget and extend the planning horizon.



Rolling forecasting is a quarterly process that compares historical trends, current operating conditions, and future planning assumptions. The forecast builds on the organization’s strategic financial plan. The future assumptions and targets used in the strategic financial plan are the same as those used in the traditional annual budget. For example, volume assumptions may include metrics on patient days, discharges, admissions, or physician and ambulatory visits.

The rolling forecast typically focuses on the first three years (12 quarters) of such projections, comparing the strategic financial plan assumptions with the organization’s expected trajectory, given current conditions and historical relationships. Instead of itemizing by individual departments or units, as is done in an annual budget, the rolling forecast focuses on higher-level “forecast groups”—that is, groupings of functional departments that define a service. For example, the “surgical services group” might combine surgery, anesthesiology, and recovery—all of which serve the same patient population.

Department leaders in each forecast group work together to identify the key volume indicator that should be used as the basis for the key performance indicators (KPIs) by which their combined operations will be measured. Examples of KPIs include total cost per unit, revenue per unit, or hours per unit.

Once the initial rolling forecast is in place, monthly KPI monitoring can be performed at a department, division, or forecast group level. The results then can be compared with other findings, including results for the previous month and the same month in the previous year, and averages over three months, six months, and year-to-date.

Rolling forecasting is not an “off the shelf,” one-size-fits-all solution. The process must be tailored to meet each organization’s

<sup>20</sup> For more information, see D. Miller et al., “How Rolling Forecasting Facilitates Dynamic, Agile Planning,” *hfm Magazine*, November 2013.

unique needs. Identifying forecast groups and selecting the most appropriate KPIs are critical, organization-specific steps because they will serve as the basis for planning and tracking performance over time.

**The Role of Cost Accounting**

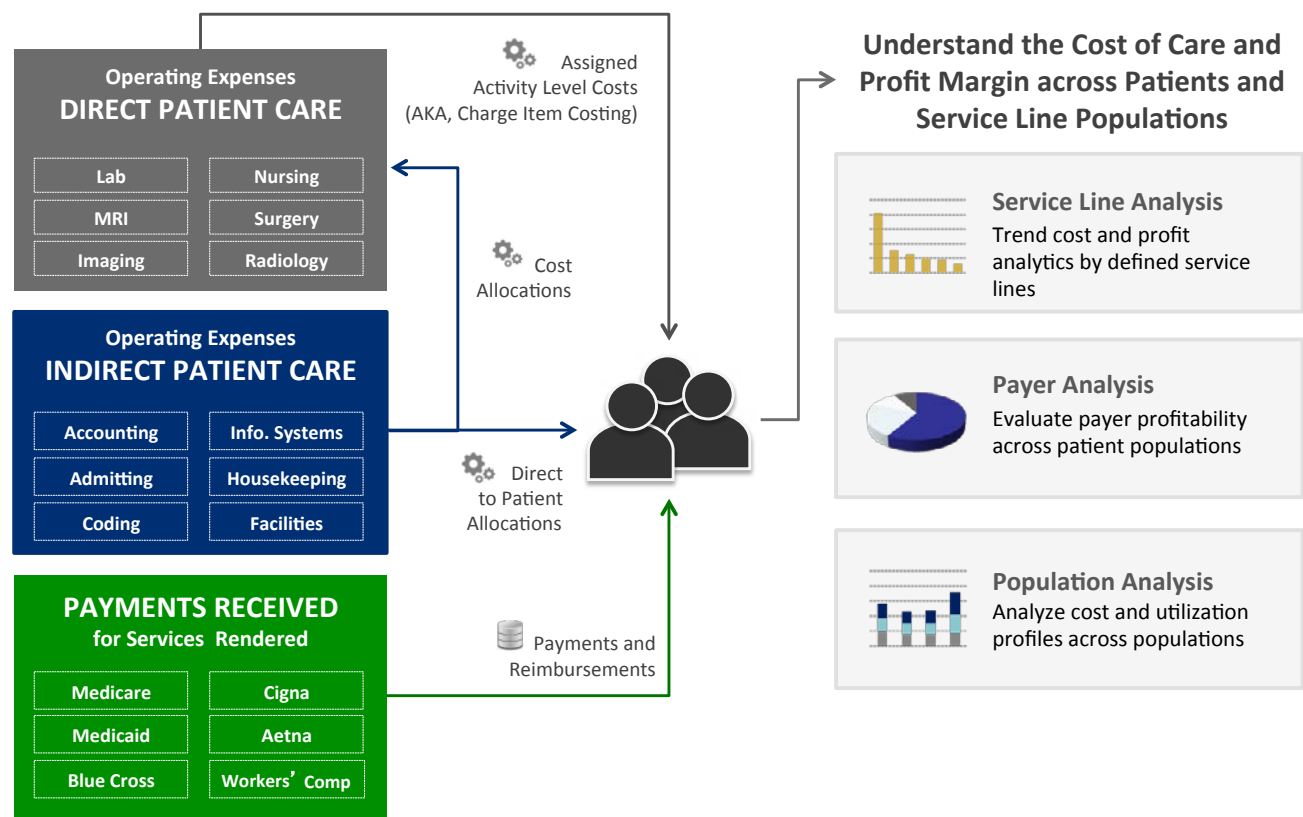
Hospitals and health systems nationwide are working hard to improve their cost accounting capabilities as the nation's health-care system transforms to a value-based care model. Utilization declines and constrained payments from government and commercial sources will challenge organizations to preserve margins by keeping costs well below revenues at all times. Accurate and reliable data must drive planning decisions, and progress should be monitored over time through accurate measures of volume, cost, and profitability trends—both by patient and across clinical service lines.

To pinpoint actual costs, finance executives are seeking systems that support activity-based costing. This approach allows for more accurate and detailed cost accounting than accomplished once a year. Activity-based costing enables organizations to examine cost drivers in real time on an activity level. It also identifies patients who require quantifiably more resources than others.

A robust cost accounting system also enables organizations to plan for and test the impact of strategic initiatives. Investment in strategic financial planning and decision support tools and contemporary costing technologies ensures that finance teams can put in place efficient processes that maximize the effectiveness and value of costing functions.

**Exhibit 14** illustrates the full role played by cost accounting.

**Exhibit 14. The Role of Cost Accounting**



Source: Kaufman, Hall & Associates, LLC





## Capital Budgets<sup>21</sup>

Development of a comprehensive inventory of capital needs is essential to understanding an organization's financial position. *Capital expenditures* are strategic investments—often involving large capital outlays—that provide benefits for more than one year, and typically for many years. Three major examples are physician strategies (e.g., practice purchases and partnerships), facilities (e.g., buildings, additions to existing buildings, and facility improvements), and technology (e.g., electronic health record systems, new imaging technology). Capital expenditures require separate consideration through a capital budgeting process.

Capital expenditures are depreciated over their estimated useful life. However, capital expenditures also incur ongoing costs, such as labor, supplies, and maintenance, which must be included in the organization's annual budget.

The board may find it more challenging to provide oversight for the capital budget, but oversight is critical. Decisions about capital expenditures made on an *ad hoc* or political basis in response to internal pressures or “power centers” are unlikely to be in the organization's best financial interests. Anticipated returns and required cash flow may not have been taken into account with decisions made on this basis. In such instances, working capital often is used to meet the need—the working capital required for day-to-day operations.

Most capital projects should increase revenues and/or reduce costs. For example, a new outpatient clinic or diagnostic testing facility should bring new revenue to the organization. The operating impact of approved capital projects should be included in the annual operating budget. Capital requests above a certain dollar figure, as defined by the organization, require analysis

through accepted methodologies, such as net present value (NPV) analysis and expected net present value (which adjusts the NPV based on possible risks). Organizations need staff with the skills to make forecasts and prepare simulations; executives need to know how to judge the worthiness of proposed projects.

In an environment of increasing competition for scarce capital, healthcare leaders must allocate capital to those initiatives that will best meet the strategic objectives of their organizations while enhancing financial performance. This requires planning for major expenditures, including establishing, monitoring, and achieving profitability targets that ensure continued financial strength. Investments should be assessed based on their relative strengths, independent of the financing mechanisms, whether debt, leasing, or other means.

Long-range planning focuses management's attention on capital budgeting. Organizations with an integrated, robust long-range plan have a more thorough understanding of the capital outlays required to meet long-term goals. On big ticket capital items, board members should be assured that appropriate staff and executive analyses have been completed.

## Using the Monthly Financial Package to Monitor Performance

### Package Overview

The hospital should distribute a package of financial information to board members on a monthly basis. Although other financial materials are circulated to directors from time to time, the monthly package is critical to keeping board members up to date about the hospital's financial condition. An abridged version of the information received by the management team, the director package typically does *not* include underlying detail, such as data related to the performance of different units and services.

<sup>21</sup> For more information, see J.H. Sussman, *The Healthcare Executive's Guide to Allocating Capital*, Chicago: Health Administration Press, 2007.

Account structures and the way data are organized differ by hospital. The financial material in the director package should include at a minimum the following:

- A *Balance Sheet*, also known as a Statement of Financial Position, as of the last day of the reported month
- A *Statement of Operations and Changes in Net Assets*, previously known as the Statement of Revenue and Expense, for the month and year-to-date and as compared to the budget (changes in net assets is often prepared quarterly or annually)
- *Statement of Cash Flows*, also commonly referred to as a “Cash Flow Statement,” for the year-to-date (at a minimum annually)
- A *Statistical Report* that reflects levels of patient activity and supports analysis of financial and operational performance

To facilitate an understanding of the reports, let’s assume that readers are board members attending a meeting of the board finance committee, either as an observer or as a committee member. As its principal task, the committee regularly monitors the hospital’s performance. (See sidebar “Monitoring Challenges” for a list of common challenges when monitoring a hospital’s performance.)

### Monitoring Challenges

Monitoring a hospital’s performance on a frequent basis is one of the key and most important tasks performed by the finance committee. Challenges involved in such monitoring include the following:

1. Budgeting, which provides information to facilitate the review of financial reports, is a difficult process requiring extensive estimating.
2. Trends may not be visible in single monthly reports, but generally can be identified as additional months are added to the year-to-date figures.
3. Significant financial changes that emerge after the budget is finalized complicate the monitoring of financial performance.
4. Auditors may make end-of-the-year adjustments that significantly affect the financial reports.

Source: Kaufman, Hall & Associates, LLC

Both the financial presentation, which is always an important agenda item at board meetings, and “the flavor” of what typically occurs at such meetings are described here. Board finance committee agendas generally are wide ranging, but the purpose of the financial presentation is to focus on the portion that addresses the question, “How are we doing?” Report contents are examined and information is provided on the hospital’s performance.

As mentioned earlier, the reports included here do not reflect actual data from a hospital. They are streamlined, and in some

instances, the linkage between reports is not made. However, these “shortcuts” do not diminish the value of the reports for the analysis described.

Throughout the analysis, “K” represents sums in thousands (000s); “M” represents sums in millions (000,000s).

The “what happened” discussion at finance committee meetings as described here does not assume that board members are versed in the methodologies used to conduct the analyses. However, the discussion *does* assume that board members understand the nature of the methodologies and can follow a discussion of how the various analyses are conducted. The chief financial officer and the finance staff provide the presentation. Board members are more than listeners, but not implementers. The board should be probing the reasons for variances and gaining an understanding of management’s planned responses.



### Exhibit 15. Sample Statement of Operations—Budget Variance Report

\$ in 000s Account Description	Current Month				Year-to-Date			
	Actual	Flex Budget	Variance	Budget	Actual	Flex Budget	Variance	Budget
<b>Operating Revenues</b>								
Inpatient Revenue	7,050	7,858	(807)	7,582	56,403	59,363	(2,959)	61,006
Outpatient Revenue	3,015	2,940	75	2,977	24,122	24,859	(737)	23,723
Other Patient Revenue	2	3	(1)	3	16	24	(8)	22
<b>Total Patient Revenue</b>	<b>10,068</b>	<b>10,801</b>	<b>(734)</b>	<b>10,562</b>	<b>80,542</b>	<b>84,246</b>	<b>(3,704)</b>	<b>84,751</b>
Deductions	4,385	4,705	319	4,600	35,080	36,694	1,613	36,913
<b>Net Patient Revenue</b>	<b>5,683</b>	<b>6,097</b>	<b>(414)</b>	<b>5,962</b>	<b>45,462</b>	<b>47,552</b>	<b>(2,091)</b>	<b>47,837</b>
Other Operating Revenue	12	14	(2)	14	2,100	1,340	760	1,450
<b>Total Revenue</b>	<b>5,695</b>	<b>6,111</b>	<b>(416)</b>	<b>5,976</b>	<b>47,562</b>	<b>48,892</b>	<b>(1,331)</b>	<b>49,287</b>
<b>Operating Expenses</b>								
Salaries and Wages	3,451	3,421	(31)	3,458	28,325	28,428	103	27,897
Contract Labor	8	0	(8)	0	65	0	(65)	0
Employee Benefits	765	758	(7)	368	6,121	6,067	(54)	4,331
Professional Fees	310	312	2	234	2,480	1,872	(608)	2,235
Purchased Services	35	56	21	56	277	449	171	449
Drugs and Supplies	1,045	994	(51)	965	9,045	8,745	(300)	9,556
Other Expenses	168	122	(46)	125	1,348	1,425	77	1,245
Depreciation	251	250	(0)	250	2,007	1,931	(75)	1,931
<b>Total Operating Expenses</b>	<b>6,034</b>	<b>5,915</b>	<b>(119)</b>	<b>5,456</b>	<b>49,668</b>	<b>48,917</b>	<b>(751)</b>	<b>47,643</b>
<b>Surplus (Deficit) from Operations</b>	<b>(339)</b>	<b>196</b>	<b>(535)</b>	<b>519</b>	<b>(2,106)</b>	<b>(25)</b>	<b>(2,081)</b>	<b>1,644</b>
<b>Non-Operating Activity</b>	<b>319</b>	<b>319</b>	<b>0</b>	<b>281</b>	<b>2,552</b>	<b>2,552</b>	<b>0</b>	<b>2,244</b>
<b>Excess of Revenues over Expenses</b>	<b>(\$20)</b>	<b>\$515</b>	<b>(\$535)</b>	<b>\$800</b>	<b>\$446</b>	<b>\$2,527</b>	<b>(\$2,081)</b>	<b>\$3,888</b>

#### Definitions of Selected Line Items

- **Other Operating Revenue:** Revenue resulting from such activities as cafeteria sales and parking garage fees
- **Professional Fees:** Payments to physicians for a variety of contractual services
- **Purchased Services:** Includes a wide variety of services, such as IT support; fees for legal, accounting, and consulting services; and collection expenses
- **Drugs and Supplies:** A major item covering medical and non-medical supplies
- **Non-Operating Activity:** Investment income and gains/losses from joint ventures are typically included in this item

Source: Kaufman, Hall & Associates, LLC

### Statement of Operations and Changes in Net Assets

Statement of Operations and Changes in Net Assets, or in shortened form, “Statement of Operations,” has two parts (see Exhibit 15). The line items above the Surplus (Deficit) from Operations line are specific to the activities of taking care of patients. Patient activity is defined broadly, however, and Operating Revenues and Operating Expenses can include small items (e.g., revenue generated from parking lot fees) and very significant items (e.g., salaries). The focus in this description is on the line items appearing above Surplus (Deficit) from Operations.

Although not reflected in this sample report, the location of reporting of “unusual” or “extraordinary” events on the Statement of Operations can significantly impact reported operating results. Depending on the type of event, it may be excluded from traditional operating metrics and reported below Excess of Revenues over Expenses in the appropriate category—either Operating Revenues or Operating Expenses.

#### The Committee’s Analysis

During the board finance committee meeting, the central question to be answered is, “How did the hospital do since the committee last met?” The Statement of Operations provides results for the current month and year-to-date. Should committee members focus on the former, the latter, or both? Generally, an analysis of

year-to-date results suffices, and hence is described here. The calculations are based on information in the reports provided here.

The analysis starts by observing what happened year-to-date on the line near the bottom labeled “Surplus (Deficit) from Operations.” There is a negative year-to-date variance of \$2,081K. The variance is the difference between the actual and the flex budgeted amount (as adjusted for actual activity). Actual performance also is significantly below the original budgeted surplus of \$1,644K. The negative variances are a matter of concern and committee members will want to determine the likely cause(s).

*Variance analysis* enables the committee to probe for root cause(s). Revenue and salary variances usually involve the largest dollar amounts and deserve the greatest attention. The most likely cause in this case is the Net Patient Revenue, which appears under Operating Revenues, where there is a negative variance of \$2,091K. This appears to be driven by lower-than-expected inpatient revenue, where the negative variance is \$2,959K.

What is the likely cause of the discrepancy? Because inpatient revenue reflects the number (i.e., volume) of discharges experienced by the hospital and the payments received for these discharges, the committee will want to look closely at these data, which appear in the Scorecard or Statistical Report (see Exhibit 16 on the following page), which provides key financial data.



Exhibit 16. Sample Scorecard or Statistical Report

(\$ 000s)

Key Financial Indicators	Budget	Trend	Actual	Current Month			Actual	Year-to-Date		
				Budget	Variance	%		Budget	Variance	%
Inpatient Discharges	●	●	514	570	-56	(9.8%)	4,112	4,543	-431	(9.5%)
Outpatient Visits	●	●	9,875	8,976	899	10.0%	79,000	81,254	-2,254	(2.8%)
Case Mix Index	●	●	1.99	1.98	0.01	0.5%	1.87	1.98	-0.11	(5.6%)
Average Length of Stay	●	●	4.25	4.33	-0.08	(1.8%)	4.32	4.35	-0.03	(0.7%)
Gross Patient Revenue	●	●	157,847	173,140	-15,293	(8.8%)	1,262,776	1,385,120	-122,344	(8.8%)
Operating Expenses	●	●	69,590	68,532	1,058	1.5%	556,723	498,432	58,291	11.7%
Salaries and Benefits	●	●	30,494	28,543	1,951	6.8%	365,928	354,516	11,412	3.2%
Paid FTEs	●	●	503.9	504.1	(0.2)	(0.0%)	499.3	503.6	(4.3)	(0.9%)

Key Ratio Indicators	Budget	Trend	Actual	Current Month			Actual	Year-to-Date		
				Budget	Variance	%		Budget	Variance	%
Avg Rate Per Hour	●	●	23.4	22.9	0.55	2.4%	24.1	25.2	-1.10	(4.4%)
Paid Hrs/Units of Service	●	●	2.46	1.65	0.81	49.0%	2.53	2.48	0.05	2.0%
Salaries Per Unit	●	●	59.3	58.3	1.0	1.8%	59.3	60.2	(0.9)	(1.5%)
Supplies Per Unit	●	●	8.4	8.5	(0.1)	(1.6%)	8.5	8.5	(0.0)	(0.4%)
Other Expense Per Unit	●	●	11.7	12.1	(0.4)	(3.5%)	11.7	11.5	0.2	1.5%
Total Expense Per Unit	●	●	79.3	78.9	(0.5)	(0.6%)	79.4	80.2	0.7	0.9%

Legend:

●	Favorable
●	Neutral
●	Unfavorable

Source: Kaufman, Hall & Associates, LLC



The first review considers the financial effects of lower-than-expected volume—a shortfall in *Inpatient Discharges*—which are 9.5 percent below expectations year-to-date.

This might appear intuitively to explain the negative \$2,081K variance on the Surplus (Deficit) from Operations line. Stopping the analysis at this point, however, would likely ignore a number of other important variances, which could offset each other and therefore should be explored, for example, rate variances and payer mix, which will also affect Inpatient Revenue.

*Rate (or “price”) variances* can result from a number of factors, such as changes in *case mix index* (CMI). If the hospital budgeted a specific acuity for its discharges, and the actual acuity is greater, the hospital will be paid more than it had anticipated, resulting in a positive variance. The opposite situation could occur as well. However, higher CMI also will often drive additional cost as sicker patients typically require additional resources for the provision of care. In this example, CMI is 5.6 percent below expectations, which is resulting in lower revenue than would otherwise be anticipated.

The other source of rate variance is payer mix. The hospital may not be achieving the proportion of revenue expected from one or more of its many payers. Payers most often have different rates for a given service. If two payers, for example, are each expected to provide half of the cases, but in fact one payer accounts for 60 percent of the cases, the actual year-to-date weighted average rate will not be what the hospital budgeted. This creates a *payer mix variance*.

Additional reasons for revenue variance include payer denials and negative prior period settlements.

Based on the variance analysis, the board members might ask senior management about the following:

1. Inpatient discharge shortfall: Why did it occur and might it continue? What steps can be taken to improve the discharge rate?
2. Payer mix: Will the lower intensity mix be sustained, or is it a transient condition?

The committee reviews the Operating Expenses section of the Statement of Operations and identifies the largest positive and negative variances. Committee members note that Professional Fees show an unfavorable variance of \$608K. With lower-than-expected discharges, shouldn't Professional Fees (which primarily are paid for physician coverage) also be lower than expected, rather than higher?

Review of non-patient care-related revenue (labeled as “Other Operating Revenue”) would typically include Investment Income (which may be shown in a number of places), Net Assets Released, and Contributions. In this instance, the operating portion of these revenues aggregate to a positive variance of \$760K. Although the aggregate number looks good, the committee might wish to review and discuss individual line items.

As the year progresses, finance committee members are likely to be increasingly interested in what the numbers will look like at the end of the year. The management's financial team can prepare a projection, which takes the most current year-to-date

actuals and adds a forecast for the remaining months. That forecast is essentially the budget for the remainder of the year, subject to significant changes to the values originally used in the budget. For example, perhaps the hospital expects a significant variance in inpatient discharges for the remainder of the year.

**Exhibit 17. Sample Balance Sheet**

Balance Sheet (\$ in 000s)	2014	2015
<b>Current Assets</b>		
Cash	\$36,550	\$17,445
Current Portion Limited as to Use	2,450	2,355
Accounts Receivable Net of Reserves	37,211	39,434
Supply Inventories, at Cost	882	1,167
Prepaid Expenses and Other	<u>23,735</u>	<u>23,891</u>
Total Current Assets	100,828	84,292
<b>Non-Current Assets</b>		
<b>Assets Limited as to Use</b>		
Trusted Assets	24,789	24,789
Restricted Cash	21,400	21,400
Board Designated Investments	<u>91,127</u>	<u>110,252</u>
Total Assets Limited as to Use	137,316	156,441
<b>Property, Plant, and Equipment</b>		
Property, Plant, and Equipment	257,288	266,788
Accumulated Depreciation	189,700	190,075
Construction in Progress	<u>30,733</u>	<u>30,733</u>
<b>Property, Plant, and Equipment, Net</b>	98,321	107,446
<b>Other Assets</b>	2,870	3,089
<b>Total Assets</b>	<b>339,335</b>	<b>351,268</b>
<b>Current Liabilities</b>		
Current Maturities of Debt	1,283	1,359
Accounts Payable	19,495	20,297
Total Current Liabilities	20,778	21,656
<b>Other Liabilities</b>	8,188	10,068
<b>Long-Term Debt</b>	86,542	85,182
<b>Net Assets</b>		
Unrestricted Net Assets	202,427	212,962
Temporarily Restricted Net Assets	12,400	12,400
Permanently Restricted Net Assets	<u>9,000</u>	<u>9,000</u>
<b>Fund Balance</b>	223,827	234,362
<b>Total Liabilities and Net Assets</b>	<b>339,335</b>	<b>351,268</b>

Note: “Trusted Assets,” shown here in the “Assets Limited as to Use” section, are assets held by a trustee or trustees in accordance with bond or other legal requirements.

Source: Kaufman, Hall & Associates, LLC





## Balance Sheet

The Balance Sheet (see **Exhibit 17** on the previous page) provides a snapshot of the organization's Assets, Liabilities, and resulting Net Assets (worth) at one point in time. As its name implies, the Balance Sheet is based upon the following equation in the not-for-profit world:

$$\text{Assets} = \text{Liabilities} + \text{Net Assets}$$

*Assets* are the resources needed to conduct a business or run an organization. *Liabilities* are the claims or the interest in those assets represented by creditors that provide the wherewithal to acquire assets. *Net assets* are the difference between assets and liabilities. In the for-profit world, this is called *net worth* and is the dollar value of a company's asset position, which belongs to the stockholders.

The Balance Sheet includes line items for three categories of Net Assets:

1. **Permanently Restricted:** These assets, such as an endowment, cannot be used, and the earnings generated can be used only in accordance with the restrictions stipulated by those providing the asset.
2. **Temporarily Restricted:** These assets have restrictions with a particular purpose, expiration date, and/or become unrestricted when certain conditions are met.
3. **Unrestricted:** These assets are what is left over after balancing the above-mentioned equation.

## The Committee's Analysis

When the Balance Sheet is reviewed, the emphasis is on line items that have changed significantly between the previous year-end Balance Sheet and the current-month Balance Sheet. When significant differences are apparent, committee members focus on why those changes occurred. Most often, the Balance Sheets of two consecutive months will not display significant changes.

## Cash Flow Statement

The Statement of Cash Flows, or "Cash Flow Statement" (see **Exhibit 18**), tracks an organization's flow of cash and provides a detailed look at the organization's sources and uses of cash during a specified period of time. Provided periodically, the Statement of Cash Flows typically includes data for the current year and previous year in two separate columns in order to enable review of what changed.

**Exhibit 18. Sample Statement of Cash Flows**

Statement of Cash Flows	2014	2015
<b>Cash Flows from Operating Activities</b>		
Increase in Net Assets	\$4,426	\$4,822
Depreciation and Amortization	10,000	10,013
Change in Operating Assets and Liabilities		
Accounts Receivable	156	-2,664
Accounts Payable	-1,707	802
Other	710	1,661
<b>Net Operating Activities</b>	<b>13,585</b>	<b>14,634</b>
<b>Cash Flows from Investing Activities</b>		
Additions to Property, Plant, & Equipment, net	-44,319	-19,138
Changes in Trusteed Assets	5,214	5,714
<b>Net Investing Activities</b>	<b>-39,105</b>	<b>-13,424</b>
<b>Cash Flows from Financing Activities</b>		
Long Term Debt Proceeds	0	0
Long Term Debt Principal Repayments	-1,212	-1,284
<b>Net Financing Activities</b>	<b>-1,212</b>	<b>-1,284</b>
<b>Cash Provided (Used)</b>	<b>-26,732</b>	<b>-74</b>
Cash Balance, beginning of period	203,049	176,317
<b>Cash Balance, end of period</b>	<b>176,317</b>	<b>176,243</b>

Source: Kaufman, Hall & Associates, LLC



### The Committee's Analysis

The finance committee reviews items that may have changed significantly. Prominent possibilities include Accounts Receivable; Accounts Payable; Property, Plant, and Equipment; and Cash (shown as "Cash Balance, End of Period" on this report).

*Accounts Receivable* reflects the amount owed to the organization for the services provided to patients. A growth in this asset can indicate both good and bad trends. A good trend is that the organization's total revenues are increasing and the Accounts Receivable is increasing proportionately. A bad trend is that the organization may not be collecting its payments due (cash) in a timely manner. The payment cycle of governmental payers also can materially impact the level of Accounts Receivable.

The Statement of Cash Flows indicates that the hospital has increased Accounts Receivable, which therefore has decreased cash by \$2,223K. Accounts Receivable may be increasing because revenue is growing, however, this appears not to be the case based on previous analyses. Another possibility is that the Accounts Receivable collection system has slowed down, thereby increasing payments yet to be received.

Given unrelenting financial pressure on organizations, committee members should be alert to the rate at which Accounts Receivable are collected and evaluate whether the current rate is at the "right level." Use of a ratio—days in accounts receivable (A/R)—widely used in healthcare and other industries, is helpful in determining how the organization is performing:

$$\text{Days in A/R} = \frac{\text{Accounts receivable (net)}}{\text{Patient revenue per day}}$$

The board should compare the hospital's results for Accounts Receivable Days to industry benchmarks, which are compiled annually and available from the major rating agencies (Moody's Investors Service, Standard & Poor's, and Fitch Ratings).

*Accounts Payable* is the amount the hospital owes to vendors. The Cash Flow Statement indicates that the hospital has increased its Accounts Payable, thereby increasing its cash by \$802K. What is an acceptable level for Accounts Payable? Again, using a ratio to identify the hospital's accounts payable position and comparing results to industry benchmarks are important and helpful. We calculate "Days in Accounts Payable" as follows:

$$\text{Days in A/P} = \frac{\text{Accounts payable}}{\text{Average daily cash expense (excluding depreciation)}}$$

The result for our hospital is an average payment period that is consistent with standards in the industry.

When hospitals are slow to pay their vendors, hospitals will not be able to take advantage of discounts offered for prompt payment. If total Accounts Payable is trending upward, which increases cash, the hospital is gaining working capital, essentially by borrowing from its vendors and suppliers. However, terms of payment may not be favorable to the hospital.

*Property, Plant, and Equipment* is reviewed if the change is consequential. The Statement of Cash Flows indicates decreased cash of \$19,138K from "Net Acquisitions of Property, Plant, and Equipment." The hospital spent this amount to fund needed purchases or improvements for property, plant, and equipment.

To investigate the appropriateness of the spending level, management needs information about the capital budget. Capital needs almost always exceed the depreciation and amortization level as replacement equipment and other items are typically more expensive. Periodically major investments are required, as in this example of spending \$44.3M and \$19.1M over the last two fiscal years. Financing is needed, but the organization may not be able to obtain such financing. The temptation is use cash from working capital to fund additional spending for property, plant, and equipment. This can have a deleterious effect on needed liquidity and an organization's future ability to borrow to fund identified strategic growth opportunities.

Another important way of assessing the appropriateness of spending levels, independent of previous investment trends, is to look at capital spending as a percentage of revenue over time and as compared to industry medians published by the rating agencies.

To review the hospital's *cash position*, the committee first identifies how much money is "in the checking account" by looking at the bottom line of the Statement of Cash Flows. This should equal the total amount of Cash (plus Current Portion Limited as to Use) and Total Assets Limited as to Use on the Balance Sheet. For our hospital, the figure is \$176.3M.

Next, in order to appraise the *total* amount of available cash, board members should identify the cash and investment accounts that do not carry a restriction, notably Cash and Board Designated Investments. The committee should evaluate whether this cash position is sufficient to support current operations and support the credit goals of the organization. An organization's cash position is one of the most important determinants of the long-term external capital access and cost.

"Days Cash on Hand" is the most common ratio used to assess liquidity. It measures the number of days of cash operating expenses an organization could support based on the current unrestricted cash balance. It is reviewed closely by the bond rating agencies, which like to see it exceeding certain levels when the organization has outstanding long-term debt or is planning to acquire new debt. There are accounts that may or may not qualify for the Days Cash on Hand calculation. A good example is "Assets Limited as to Use," the categories and classifications of which vary widely. In many instances, accounts which represent trustee or donor restricted assets would not qualify as unrestricted cash.

We calculate Days Cash on Hand, which equals 260, as follows:

$$\text{Days Cash on Hand} = \frac{\text{Cash} + \text{Marketable securities} + \text{Board-designated investments}}{\text{Average daily expense}}$$

Note that the hospital's Balance Sheet includes Assets Limited to Use under Current Assets ("Current Portion Limited as to Use") and under non-current assets. Committee members also

will observe that the value of the Restricted Cash (\$21,400K) is precisely equal to the value of Temporarily Restricted Net Assets (\$12,400K) plus Permanently Restricted Net Assets (\$9,000K). This is not an accident. The hospital has funds involving donations whose use is restricted to specific purposes and/or the principle of which cannot be spent with investment returns limited to specific purposes. This sum cannot be included in the calculation of Days Cash on Hand.

Analysis of other ratios can give finance committee members insight into the hospital's profitability, liquidity, leverage, and physical plant. Key ratios include operating margin, excess margin, operating EBIDA margin, cash-to-debt ratio, cash-to-puttable debt, debt service coverage ratio, debt-to-capitalization ratio, debt-to-cash flow ratio, average age of plant, and capital spending ratio.

Hospitals are buffeted by a variety of forces, including unfavorable payment adjustments and increasing costs. Notwithstanding, sound financial management is imperative. The alternative—operating in the perpetually tense world of subsistence cash levels—is difficult, at best.

## Using Credit and Ratio Analysis to Monitor Performance

Dozens of factors are relevant to financial performance; the challenge for an organization's board and management team is to select those most indicative of the organization's financial strengths and weaknesses and closely monitor these on a regular basis.

### Ratio Analysis

A ratio compares quantities relative to each other, for example, the amount of cash an organization has in dollars compared to the amount of debt outstanding in dollars. Ratio analysis is a process used to conduct a quantitative analysis of the information in an organization's financial statements. Ratios are calculated from current year numbers and are then compared to previous years, other organizations, or the industry to judge the performance of the hospital. Financial ratios can be used to identify organizational trends and comparative performance.

The sidebar "Key Indicators Used in Many Effective Financial Analyses" lists the key measures used in many financial analyses and **Exhibit 19** (on the next page) defines their associated ratios. Financial statements provide the data required for ratio calculation.

### Key Indicators Used in Many Effective Financial Analyses

#### Profitability Indicators:

- *Operating margin* reflects the profitability of an organization from its active patient care and related operations.
- *Excess margin* reflects profitability from operations and includes revenue and expense from non-operating activities such as investment earnings and philanthropy.
- *Operating earnings before interest, depreciation, and amortization (EBIDA) margin* provides a good look at an organization's ability to generate enough cash to support capital funding requirements. This is the most important measure of operating performance as it reflects cash flow absent capital investment decisions.

#### Liquidity Indicators:

- *Days cash on hand*, probably the most important credit ratio in use today, reflects the number of days of cash the organization has to support operating expenses.
- *Cash-to-debt ratio* measures the availability of an organization's liquidity to pay off existing debt.

#### Debt Indicators:

- *Debt-service coverage ratio* measures the ability of an organization's cash flow to meet its debt-service requirements.
- *Debt-to-capitalization ratio* indicates how highly leveraged, or debt financed, the organization is—the higher the capitalization ratio, the higher the risk.

#### Other Indicators:

- *Average age of plant* provides a relative measure of the age of the physical facilities and provides insight into the organization's future capital needs.
- *Capital spending ratio* assesses capital spending as a percentage of depreciation. If historical spending has been relatively high or low, resulting in an atypical level of depreciation, this target should be adjusted.

Source: Kaufman, Hall & Associates, LLC



### Exhibit 19. Key Creditworthiness Ratios

Indicator	Financial Ratio
Operating margin	$\frac{\text{Total operating revenue} - \text{Operating expenses}}{\text{Total operating revenue}}$
Excess margin	$\frac{\text{Income from operations} + \text{Non-operating revenue}}{\text{Total operating} + \text{Non-operating revenue}}$
Operating EBIDA margin	$\frac{\text{Operating income} + \text{Interest} + \text{Depreciation} + \text{Amortization}}{\text{Total operating revenue}}$
Days cash on hand	$\frac{\text{Cash} + \text{Marketable securities} + \text{Board-designated funds}}{(\text{Total operating expenses} - \text{Depreciation} - \text{Amortization}) / 365}$
Cash-to-debt ratio	$\frac{\text{Cash} + \text{Marketable securities} + \text{Board-designated funds}}{\text{Long-term debt} + \text{Short-term debt}}$
Debt-service coverage ratio	$\frac{\text{Excess revenue over expenses} + \text{Depreciation} + \text{Interest} + \text{Amortization}}{\text{Annual debt service}}$
Debt-to-capitalization ratio	$\frac{\text{Long-term debt (less current portion)}}{\text{Long-term debt (less current portion)} + \text{Unrestricted net assets}}$
Average age of plant	$\frac{\text{Accumulated depreciation}}{\text{Annual depreciation}}$
Capital spending ratio	$\frac{\text{Capital expenditures (additions to property, plant, and equipment)}}{\text{Depreciation expense}}$

Source: Kaufman, Hall & Associates, LLC

### Credit Analysis

An excellent way for boards and executives to understand a hospital or health system's current financial position is to conduct a financial credit analysis. This essentially allows them to compare the organization's recent financial performance to relevant national standards that serve as a benchmark based on the organization's credit goals.

Organizational leaders typically construct the necessary data chart by using key median indicators from Standard & Poor's, Fitch Ratings, or Moody's Investors Service for similarly rated

organizations or those at the hospital's targeted rating. These indicators include revenue, income, cash, and debt figures as well as profitability, debt, and liquidity ratios (see **Exhibit 20**). An analysis of the data enables the board and management to draw conclusions or make key observations about relative performance. Benchmarking against median data often enables organizations to identify negative trends that must be addressed in order to preserve or enhance the organization's credit rating and establish long-term targets.

### Exhibit 20. Financial Credit Analysis Highlights for a Sample Health System (Dollars in Millions)

Ratio / Statistic	Moody's	Moody's	Fiscal Year Ended December 31		
	Baa1	A3	2013	2014	2015
Net Patient Service Revenue	\$464.3	\$415.4	\$159.5	\$177.3	\$191.4
Operating Income	\$8.0	\$9.5	(\$4.6)	\$4.4	\$4.8
Operating EBIDA	\$47.8	\$57.5	\$8.9	\$19.3	\$19.8
Net Income	\$23.3	\$26.0	\$1.2	\$9.6	\$10.5
Unrestricted Cash	\$197.9	\$222.6	\$153.9	\$127.7	\$127.7
Long-Term Debt	\$217.5	\$187.2	\$87.8	\$86.5	\$85.2
Capital Expenditures	\$37.9	\$34.7	\$10.5	\$44.3	\$19.1
<b><u>Profitability</u></b>					
Operating Margin	1.0%	2.3%	(2.9%)	2.5%	2.5%
Operating EBIDA Margin	7.9%	9.7%	5.5%	10.8%	10.2%
Excess Margin	3.6%	5.1%	0.7%	5.2%	5.3%
<b><u>Debt Position</u></b>					
Debt Service Coverage (x)	---	---	2.5	4.0	4.1
Long-Term Debt to Capitalization	42.2%	40.5%	31.3%	29.9%	28.6%
Long-Term Debt to Cash Flow (x)	4.5	3.8	8.6	4.4	4.1
<b><u>Liquidity</u></b>					
Cash to Long-Term Debt	103.9%	116.5%	175.2%	147.5%	149.9%
Days Cash on Hand (days)	150.5	190.6	357.5	282.6	260.1
Days in A/R, net	49.7	50.3	88.7	76.6	75.2
<b><u>Other</u></b>					
Average Age of Plant	11.8	10.6	21.6	19.0	19.0
Capital Spending Ratio	107.0%	110.1%	117.1%	443.2%	191.1%

Source: Kaufman, Hall & Associates, LLC

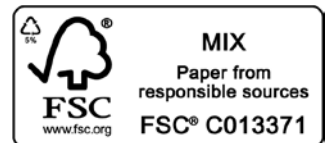
# Conclusion

**H**ealthcare leaders must take exceptional care of the organization's financial health. Directors and executives of hospitals and health systems have responsibility as the stewards of their organization's finances.

THIS PUBLICATION HAS TOUCHED ON SOME OF THE KEY concepts and tools used in hospitals and health systems across the U.S. Board members must understand and feel comfortable with these concepts; the importance of this cannot be understated. In today's healthcare environment, directors and senior executives cannot assume that someone else—other “more knowledgeable” members of the finance

committee or senior managers—is solely responsible for “the numbers.”

If reading this publication has left you with more questions than when you started, please insist on further information and education to understand the reports you receive and the trends they may indicate. Your organization's financial health and future depends on such understanding.







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