This is a sample of the instructor materials for *Introduction to the Financial Management of Healthcare Organizations*, seventh edition, by Michael Nowicki.

The complete instructor materials include the following:

- Test bank
- Answer guides for the book's discussion questions
- PowerPoint slides (separate versions for outline and Socratic methods) for each chapter
- Case materials

This sample includes the answer guides and PowerPoint slides for Chapter 3, "Financial Analysis and Management Reporting."

If you adopt this text, you will be given access to the complete materials. To obtain access, e-mail your request to hapbooks@ache.org and include the following information in your message:

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Chapter 3

1. How would you explain the three steps of financial analysis at the organizational level.

   1. Establish the facts in the organization. This includes a review of the organization's key financial statements (usually audited financial statements).
   2. Compare the facts over time and to facts in other organizations, using ratio analysis, horizontal analysis, and vertical analysis.
   3. Use perspective and judgment to make decisions about the comparisons. Decisions are made with the information gathered in the first two steps as well as information from the decision makers' perspective.

2. What is the purpose of creating a balance sheet? List the three general classifications of the balance sheet and possible categories under these classifications.

   The balance sheet shows the organization's financial position at a specific point in time and includes assets (current assets and noncurrent assets), liabilities (current liabilities and noncurrent liabilities) and net assets (unrestricted, temporarily restricted, and permanently restricted).

3. What is the purpose of the statement of operations? List the main classifications and the possible categories under the classifications.

   The statement of operations shows the flow of values and includes revenues (net patient care, premium, and other operating revenues) and expenses, total operating income, nonoperating income, and excess of revenues over expenses.

4. What types of organizations use the statement of changes in net assets, and why?

   Not-for-profit organizations must report changes in unrestricted net assets on the statement of operations. Many not-for-profit organizations also report temporarily restricted and permanently restricted net assets on the statement of operations, thus negating the need for a separate statement.

5. What is the statement of cash flows? The statement is divided into three segments; list each category.

   The statement of cash flows describes cash flows (not revenues) for a specific period of time, and the statement is usually divided into three segments—cash flows from operations; cash flows from investing; and cash flow from financing.

6. What are the four classifications of ratios on which the financial statement analysis focuses?

Financial statement analysis usually includes liquidity ratios, profitability ratios, asset efficiency ratios, and capital structure ratios.

7. What are the operating indicators used to analyze the financial performance of an organization?

   Operating indicators are nonfinancial indicators. Occupancy rate and length-of-stay are two such indicators that are often used.

8. What must an annual report include to be considered a good report?

   Annual reports provide accountability to the stockholders of the organizations. They must have several key characteristics to be considered good: attention to audience and purpose, timeliness, accuracy, clarity, comparability, commentary, and meaningfulness.

Chapter 3

Financial Analysis and Management Reporting

Financial Analysis and Management Reporting

Learning Objectives

- Identify and understand the major components of financial statements.
- List in order and explain each step in the financial analysis process.
- Explain the principles in preparing good financial reports.

Introduction

Financial analysis and management reporting

- Integral parts of the management functions of control and management

- Includes methods used by investors, creditors, and manage evaluate the past, present, and future financial performar healthcare organization

Steps in Financial Analysis

1. Establish the facts in the organization.
2. Compare the facts over time and to facts in similar
   organizations.
   - Ratio analysis
   - Horizontal analysis
   - Vertical analysis

3. Use perspective and judgment to make decision regarding
   the comparisons.

Steps in Financial Analysis

- Ratio analysis—computes the relationships of important line items

- Four kinds of ratios:
  - Liquidity
  - Profitability
  - Activity
  - Capital structure

Steps in Financial Analysis

- Horizontal analysis—evaluates the trend in the line item
- Vertical analysis—evaluates the internal structure of the organization

Steps in Financial Analysis

Financial statements:

- Balance sheet
- Statement of operations
- Statement of changes in net assets
- Statement of cash flows

Balance Sheet

- Shows organization's financial position at a specific point in time
- Presents organization's assets, liabilities, and net assets (or shareholders' equity in for-profit organizations)

Assets = Liabilities + Net Assets

Balance Sheet

Beginning after December 15, 2017, organizations will present net assets in two categories:

- Net assets without donor restrictions (disclose the amount, purpose, and type of board restrictions)
- Net assets with donor restrictions (disclose the nature and amount of donor restrictions)

Balance Sheet

- After December 15, 2018, public and not-for-profit organizations will present the effects of all leases on the balance sheet (December 15, 2019 is the deadline).

- The organization should recognize a liability and a right-of-use asset on the balance sheet.

Statement of Operations

- Summarizes net revenues, expenses, and the excess of net revenues over expenses (or income before taxes in a for-profit organization) over a period of time

Assets = Liabilities + Net Assets + (Revenue – Expenses)

Statement of Operations

Charity care

- Recorded at cost along with the method of determining cost
- Charity care policy should be mentioned in notes to the financial statements

Statement of Operations

- Bad debt expense reflects that the organization provided services with the expectation of payment.

- Charity care reflects services the organization provided with no expectation of payment.

Statement of Operations

- The AICPA Revenue Recognition Task Force for Healthcare has proposed new guidance for presenting bad debt, which will allow the organization to group patients with similar characteristics.

Statement of Operations

Bad Debt is recognized in two categories:

- Classic bad debt (the patient is able to pay, but the patient does not pay)—recorded as a bad debt expense under operating expenses.

- Implicit price concession (the patient is unable to pay, but the patient is not eligible for charity care, and the organization recognizes a write-off based on internal policy)

Statement of Changes in Net Assets

- Shows the reasons why net assets changed from the beginning of the period to the end of the period

- Shows how changes in excess of revenues over expenses affects the net asset, or equity, position of the organization

Statement of Changes in Net Assets

- AICPA requires nonprofit organizations to report unrestricted net assets on the statement of operations.
- Many organizations also include temporarily restricted and permanently restricted net assets to eliminate the need for the statement of changes in net assets.

Statement of Cash Flows

- Shows the organization's cash flow
- Includes the amounts of cash receipts and the amounts of cash disbursements during the statement period

Statement of Cash Flows

- After December 15, 2017, the organization may present cash flow using either the direct or the indirect method.

Ratio Analysis

- Ratios analysis—a comparison between two or more financial facts, such as income to assets or assets to liabilities
- Financial statement analysis concentrates on four classifications of ratios:
  - Liquidity ratios
  - Profitability ratios
  - Activity efficiency ratios
  - Capital structure ratios

Ratio Analysis

Liquidity ratios—indicate an organization's ability to meet short-term obligations

- Current ratio
- Collection period
- Days cash on hand, short-term sources
- Days cash on hand, all sources
- Average payment period

Ratio Analysis

Current ratios—basic indicators of financial liquidity

- Nondirectional
- Higher values mean better debt-paying capacity.
- Too high may mean that the organization could invest excess current assets more wisely.

$$\frac{\text{Total current assets}}{\text{Total current liabilities}}$$

Ratio Analysis

Collection period—measure of how long the average patient (or payer) takes to pay the bill after discharge

- Also know as days in accounts receivables
- Directional
- Higher values indicate liquidity problems

$$\frac{\text{Net receivables}}{\text{Net patient services revenue}/365}$$

Ratio Analysis

- Days cash on hand, short-term sources

$$\frac{\text{Cash + Temporary investment}}{\text{(Total expenses – Depreciation expenses)/ 365}}$$

- Days cash on hand, all sources

$$\frac{\text{Cash + Temporary investment + Unrestricted long-term investments}}{\text{(Total expenses – Depreciation expenses)/ 365}}$$

Ratio Analysis

Average payment period—measures how long the organization takes to pay its obligations

- Lower values indicate liquidity and are preferable.

$$\frac{\text{Total current liabilities}}{(\text{Total expenses} - \text{Depreciation expenses})/365}$$

Liquidity Ratios

Ratios	Optum Median 2015
Liquidity	
Current	2.18
Collection period	47.30
Days cash-on-hand, all sources	70.50
Days cash-on-hand, short-term sources	27.40
Average payment period	54.10

Ratio Analysis

Profitability ratios—indicate an organization's ability to survive and grow by measuring the relationship of revenues to expenses

- Operating margin
- Excess margin
- Return on net assets

Ratio Analysis

Operating margin

- Reflects profits from only operations
- Higher values indicate profitability

$$\frac{\text{Operating income}}{\text{Total operating revenue}} \times 100$$

Ratio Analysis

Total margin

- Reflects profits from both operations and nonoperations
- Higher values indicate profitability.

$$\frac{\text{Excess of revenue over expenses}}{\text{Total operating revenue}} \times 100$$

Ratio Analysis

Return on net assets—basic measure of profit in relationship to investment

- Higher values reflect profitability.

$$\frac{\text{Excess of revenue over expenses}}{\text{Net assets}} \times 100$$

Profitability Ratios

Profitability ratios	Optum Median 2015
Operating margin (%)	1.43
Total margin (%)	3.80
Return on net assets (%)	7.00

Ratio Analysis

Asset efficiency ratios—indicate an organization's ability to be efficient by measuring the relationship between revenue and assets

- Total asset turnover
- Fixed asset turnover
- Current asset turnover
- Inventory turnover

Ratio Analysis

- Total asset turnover—basic measure of how efficiently an organization is using its assets in relation to making revenue

$$\frac{\text{Total operating revenue} + \text{Other income}}{\text{Total assets}}$$

- Cleverley (2010) recommends calculating the age of plant ratio to determine whether efficiency or an older facility is causing a high total asset turnover ratio.

$$\text{Age of plant ratio} = \frac{\text{Accumulated depreciation}}{\text{Depreciation expense}}$$

Ratio Analysis

Fixed asset turnover

- Measures how efficiently an organization is using its fixed assets (usually property, plant, and equipment)
- Higher values indicate higher efficiency.

$$\frac{\text{Total operating revenue} + \text{Other income}}{\text{Net fixed assets}}$$

Ratio Analysis

Current asset turnover

- Measures how efficiently an organization is using its current assets in relation to generating revenue
- Higher values indicate higher efficiency.

$$\frac{\text{Total operating revenue} + \text{Other income}}{\text{Current assets}}$$

Ratio Analysis

Inventory turnover

- The number of times an organization turns over its inventory relative to total operating revenue and other income
- Low values usually indicate overstocking.

$$\frac{\text{Total operating revenues + Other income}}{\text{Inventory}}$$

Asset Efficiency Ratios

Asset efficiency	Optum Median 2015
Total asset turnover	0.99
Age of plant (years)	11.48
Fixed asset turnover	2.54
Current asset turnover	3.72
Inventory turnover	53.10

Ratio Analysis

Capital structure ratios—indicates the organization's long-term liquidity by measuring a variety of relationships to capital

- Net asset financing
- Long-term debt to net assets
- Debt service coverage
- Cash flow to debt

Ratio Analysis

Net asset financing

- Measures the relationship between assets owned by the organization
- Nondirectional
- Higher values are usually preferable.

$$\frac{\text{Net assets}}{\text{Total assets}} \times 100$$

Ratio Analysis

Long-term debt to net assets

- The relationship between long-term debt and assets owned by the organization
- Lower values are preferable.

$$\frac{\text{Long-term debt}}{\text{Long-term debt} + \text{Net assets}} \times 100$$

Ratio Analysis

Debt service coverage

- Measures the ability to meet long-term debt obligations
- Higher values indicate an organization's ability to meet long-term debt
  obligations.

$$\frac{\text{Excess of revenue over expenses + Depreciation expense + Interest expense}}{\text{Debt principal payment + Interest payments}}$$

Ratio Analysis

Cash flow to debt

- Measures the ability to meet both short-term and long-term obligations
- Higher values indicate an organization's ability to meet both short-term

  and long-term obligations.

$$\frac{\text{Excess of revenue over expenses} + \text{Depreciation expenses}}{\text{Current liabilities} + \text{Long-term debt}} \times 100$$

Capital Structure Ratios

Capital Structure Ratios	Optum Median 2015
Net asset financing (%)	55.20
Long-term debt to capitalization	23.70
Debt service coverage	3.37
Cash flow to debt (%)	22.40

Case Study

Imagine that you are the financial manager of Clark Pediatrics Center and you have a meeting with the board of directors in a month. You need to create a financial analysis of the organization. You have also been asked to compare Clark Pediatrics to other pediatric healthcare organizations in the area to create a trend comparison.

- What must you do to complete a financial analysis?
- What information do you need for both horizontal and vertical analysis?
- What sources can you use for comparison?
- What decisions can be made regarding this information?

Operating Indicators

- Measure financial performance related to operations
- Should be readily available on a variety of reports used by management
  - Occupancy rate
  - Average length of stay (ALOS)

Operating Indicators

Average length of stay

- Lower ALOS that hold down costs are preferable.
- Median ALOS for all hospitals reporting to Optum for 2015 was .50.
- Median ALOS adjusted for case mix for all hospitals to Optum 2015 was 2.7.

$$\frac{\text{Patient days}}{\text{Discharges}}$$

Operating Indicators

Occupancy rate

- Measures capacity, or the percentage of the hospital that is being used
- Median occupancy rate for all hospitals reporting to Optum for 2015 was 55.3.

$$\frac{\text{Patients days}}{365 \times \text{Licensed beds}}$$

Financial Analysis and Annual Reports

- Reports serve as a vehicle for communication and provide accountability.
- Required by for-profits
  - Not-for-profits have begun reporting.

Financial Reports and Annual Reports

Principles of good reports

- Audience and purpose
- Timeliness
- Accuracy
- Clarity
- Comparability
- Commentary
- Meaningfulness

Key Points

- Financial analysis includes three steps: (1) establish the facts in the organization, (2) compare facts in the organization over time and to facts in similar organizations, and (3) use perspective and judgment to make decisions regarding the comparisons.
- The balance sheet represents the organization's assets, liabilities, and net assets.
- The statement of operations summarizes the organization's net revenues, expenses, and excess of net revenues over expenses..
- The statement of changes in net assets is the equity in a for-profit organization.
- The statement of cash flows categorizes an organization's cash flows.

Key Points

- Ratio analysis is used to compare facts of an organization over time and also compares this information to that of similar organizations.
- Operating indicators measure the financial performance in relation to operations.

Discussion Questions

1. How would you explain the three steps in financial analysis at the organizational level?
2. What is the purpose of creating a balance sheet? List the three general classifications of the balance sheet and possible categories under these classifications.
3. What is the purpose of the statement of operations? List the main classifications and the possible categories under these classifications.
4. What type of organizations use the statement of changes in net assets, and why?

Discussion Questions

5. What is the statement of cash flows? The statement is divided into three segments; list each category.
6. What are the four classifications of ratios on which the financial statement analysis focuses?
7. What are the operating indicators used to analyze the financial performance of an organization?
8. What must an annual report include to be considered a good report?

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Learning Objectives

- Identify and understand the major components of financial statements.

- List in order and explain each step in the financial analysis process.

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Introduction

Who are the users of financial analysis methods and why?

Steps in Financial Analysis

What are the steps in financial analysis?

Steps in Financial Analysis

What are the types of analysis?

Steps in Financial Analysis

What are the types of financial statements?

Balance Sheet

What does balance sheet represent?

Balance Sheet

What are the two new categories of net assets?

Balance Sheet

After December 15, 2018, in which financial statement will public and not-for-profit organizations present the effects of all leases? And why?

Statement of Operations

What does the statement of operations summarize?

Statement of Operations

Which policy should be mentioned in the notes to the financial statements?

Statement of Operations

What is the difference between bad debt and charity care?

Statement of Operations

According to the AICPA Revenue Recognition Task Force for Healthcare, what are the two categories of bad debt?

Statement of Changes in Net Assets

What does the statement of changes in net assets indicate?

Statement of Changes in Net Assets

Why have many organizations eliminated the statement of changes in net assets?

Statement of Cash Flows

What does the statement of cash flows represent?

Statement of Cash Flows

Which method will the organization use to represent cash flows after December 15,2017?

Ratio Analysis

What is ratio analysis? What are the classifications of ratio?

Ratio Analysis

What does liquidity ratio indicate? What does liquidity ratio include?

Liquidity Ratios

Ratios	Optum Median 2015
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Current	2.18
Collection period	47.30
Days cash-on-hand, all sources	70.50
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Ratio Analysis

What do profitability ratios reflect?

Ratio Analysis

What are the best ratios to measure profitability?

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What are the best ratios used to measure a variety of relationships to capital?

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- What information do you need for both horizontal and vertical analysis?
- What sources can you use for comparison?
- What decisions can be made regarding this information?

Operating Indicators

What do operating indicators measure?

Financial Reports and Annual Reports

Why are financial and annual reports important? What kind of organization requires this type of reporting?

Financial Reports and Annual Reports

What are the principles of good reports?

Key Points

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