

Financial Management in Health Care Organizations

HSCC 450
Week 2
Lecture 1
Chapter 3: Accounting & Cash Flow Analysis

Objectives

- Explain basic accounting rules under the accrual principle
 - Including how accrual results differ from results under cash accounting
 - Interpret the individual items in financial statements
 - Define major accounting items
 - Make simple bookkeeping entries
 - Begin the study of financial statement analysis
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Why Learn Accounting? (1/3)

- Accounting *is* the language of business!
 - Business records are kept by accountants
 - Financial “health” of the organization is communicated using accounting terms
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Why Learn Accounting? (2/3)

- The *past* financial health history is expressed using financial statements
 - For the trained reader, the income statement, balance sheet, and cash flow statement provide detailed information about the financial strength of the firm and previous success
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Why Learn Accounting? (3/3)

- Cost analysis and budgeting can only be effectively conducted with an understanding of financial accounting
 - In order to prepare a budget, the manager must know the department's costs change over time & service volume changes.
 - Information regard cost is embedded in accounting data on expenses
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Fields of Accounting Practice (1/3)

- Financial accountant
 - Designs procedures for the recording of transactions, supervises that record-keeping function, and is responsible for summarizing those records in financial statements
 - Financial accountants are responsible for the *financial reporting* function within the comptroller's department
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Fields of Accounting Practice (2/3)

- Managerial accounting
 - Obtain information about the costs of doing business for the financial records
 - After the information is obtained, the information is analyzed to determine how costs change with changing volume and how well management is doing at controlling cost
 - Additionally, the managerial accountant plays a key role in budgeting and variance analysis

Fields of Accounting Practice (3/3)

- Auditors
 - External (public) auditors verify a firm's financial statements are according to GAAP standards
 - Any firm who's shares/stocks are publicly traded are required to have their records audited
 - Internal
 - Ensure adequate records are maintained to support the financial statements that the organization presents

Accounting Principles: What are they & who makes them up? (1/19)

- Modern financial accounting arose from double-entry bookkeeping
 - the recording of transactions as self-balancing entries
- Financial accounting is based on a set of underlying principles, GAAP, that guide both the nature of bookkeeping and their interpretations

Accounting Principles: What are they & who makes them up? (2/19)

- A presumption of financial accounting is the entity is of the **going concern**
 - The entity exist in the current time and will continue to exist for the foreseeable future
 - A consequence of the going concern is that the entity's assets and obligations must balance

Accounting Principles: What are they & who makes them up? (3/19)

- BASIC ACCOUNTING EQUATION
- **ASSETS = LIABILITIES + OWNERS EQUITY**

Accounting Principles: What are they & who makes them up? (4/19)

- Assets are all the things (tangible and intangible) that the entity owns
 - Current assets are those assets that will cease to exist within one accounting period (usually one year)
 - Items such as inventory & cash which may last longer than one year are considered current assets

Accounting Principles: What are they & who makes them up? (5/19)

- Liabilities are all of the items that the entity owes to others
 - Accountants payable (expenses incurred but not yet paid), interest payable (interest expense incurred but not yet paid), and long-term debt are some examples of liabilities
 - Like assets, liabilities due within the accounting period are called current liabilities

Accounting Principles: What are they & who makes them up? (6/19)

- Owners' equity is the difference between the value of the entity's assets and its liabilities
 - Owners equity = assets – liabilities
 - Owners' equity is a residual account
 - There is nothing tangible that one can identify as belonging to the organization's shareholders, partners, or government

Accounting Principles: What are they & who makes them up? (7/19)

- Interestingly, the term "owners equity" is more fiction rather than fact
 - Owners' equity assumes the "owner" would receive the "book value" of assets if they were liquidated
 - Rarely does the market value equal the book value
 - Try to sell your vehicle for what you think it is worth!

Accounting Principles: What are they & who makes them up? (8/19)

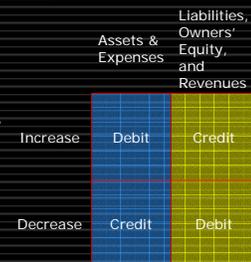
- Not-for-profit and governmental agencies have no shareholders or partners; therefore owners' equity is referred to as "net assets"

Accounting Principles: What are they & who makes them up? (9/19)

- Fundamental accounting identifies things the entity owes as debit (left-hand side); items owed to the entity are identified as credits (right-hand side)

Accounting Principles: What are they & who makes them up? (10/19)

- For basic accounting identity to be met, debits must equal credits
 - When one side goes up the other side must go down by an equal amount



Accounting Principles: What are they & who makes them up? (11/19)

- Another basic accounting principle is conservatism
 - This principle requires most assets to be recorded at their "historical cost"
 - For example, land acquired at a certain value will remain at the same recorded value, despite market conditions
 - However, marketable securities are recorded at the "current" value

Accounting Principles: What are they & who makes them up? (12/19)

- An often overlooked accounting principle is that all information must be recorded in monetary terms
- Accounting statements must represent "full disclosure"
 - Must present the "good, the bad, and the ugly"

Accounting Principles: What are they & who makes them up? (13/19)

- The accrual principle requires revenues be recorded in the period in which the associated service is performed; likewise, expenses must be recorded in the time period they are incurred
 - Regardless whether or not cash has changed hands
 - The accrual principle is intended to show the flow of resources rather than the flow of cash

Accounting Principles: What are they & who makes them up? (14/19)

- The principle rule-making body in financial accounting in the U.S. today is the Financial Accounting Standards Board (FASB)
 - Governmental entities are governed by the Governmental Accounting Standards Board (GASB)
 - Entities whose securities are sold to the public at large are subject to accounting oversight by the U.S. Securities and Exchange Commission

Accounting Principles: What are they & who makes them up? (15/19)

- The three basic financial statements require at present are:
 - Balance sheet
 - Income statement
 - Cash flow statement

Accounting Principles: What are they & who makes them up? (16/19)

- The balance sheet shows the balance between the assets and liabilities plus owners' equity
 - The balance sheet shows a snapshot of the entity at the end of the reporting period

Accounting Principles: What are they & who makes them up? (17/19)

- The income statement shows the revenues, expenses, and net income over the course of the reporting period
 - The income statement is a statement of profit & loss, operating expense, or statement of revenues and expenses

Accounting Principles: What are they & who makes them up? (18/19)

- The cash flow statement shows the flow of cash into and out of the entity over the course of the reporting period

Accounting Principles: What are they & who makes them up? (19/19)

- An important part of the financial statements are the footnotes
 - The footnote explain and elaborate such issues as the dollar value of uncompensated care, the method of calculating pension fund expense, and pending legal actions that could generate liabilities in the future

The Accounting Cycle (1/6)

- Each transactions creates (requires) two book entries
 - This is the essence of double-entry bookkeeping
 - From these double-entries, budgetary information, cost data, and financial statements
 - From the original bookkeeping entries to the financial statements arise the "accounting cycle"

The Accounting Cycle (2/6)

- Journal entries are the first steps of the cycle (Figure 3-2 page 42)
 - Equal credit and debit entries are made in the organization's journal
 - These entries are the raw data for ongoing accounting calculations

The Accounting Cycle (3/6)

- Depending on the organization, at regular time intervals journal entries are posted to account ledgers
 - Computerized accounting makes automatic and instantaneous possible
- Each major revenue and expense items have separate accounts
 - Major asset, liability and equity each have separate accounts

The Accounting Cycle (4/6)

- Asset accounts, if a positive amount of the assets are held, have debit balances
 - Likewise, revenue account, if positive amounts of that revenue item have been received, has a credit balance

The Accounting Cycle (5/6)

- Trial balances are computed following postings
 - The trial balance is a test for accuracy and consistency
 - If the debit entries and credit entries have been entered correctly, each column equal

The Accounting Cycle (6/6)

- At regular intervals, longer than journal entries, the accounts are summarized in the three basic financial statements
 - The books must balance at this point!
 - In the balance sheet, assets = liabilities + owners' equity
 - Additionally, period's net income – profits to shareholder's = period's change in owners' equity

Basic Accounting Entries (1/5)

Date	Transaction	dr	cr
1/1	Cash	\$100,000.00	
	Paid-in Capital		\$100,000.00

- Consider the company XYZ Home Health Care, an investor-owned organization. In the table, the initial investors provide \$100,000.00 in cash to start XYZ. Cash is an asset, therefore a debit entry of "\$100,000.00" is made and labeled "Cash" to indicate the account ledger to which the amount will later be posted. In order to maintain a balance, a credit entry is made. The initial \$100,000.00 establishes the shareholders' claim against the organization, this is identified by the entry "paid-in capital"

Basic Accounting Entries (2/5)

Date	Transaction	dr	cr
1/30	Accounts receivable	\$6,000.00	
	Revenue		\$6,000.00

- XYZ Home Health Care was awarded a contract from the county health department. The contractual agreement stipulates the county will pay \$50.00 for each visit. Payments from the county will be made quarterly. During the month of January, XYZ made 120 visits for a total of \$6,000.00 (50 x 120 = 6000). As January is the first month of the first quarter, XYZ will not receive January's payment until the first of April. Accrual accounting requires the associate revenues for the month to be recorded.

Basic Accounting Entries (3/5)

Date	Transaction	dr	cr
1/31	Nursing service expense	\$4,200.00	
	Cash		\$4,200.00

- There are three nurses, which make home health visits for XYZ. XYZ contracts with each nurse individually and compensates each visit at \$35 per visit. So, for the month of January, \$4,200.00 must be paid to the nurses (120 x 35 = 4200). Corresponding journal entries are made. Nursing service expense as a debit, and cash as a credit. The payment to the nurses depletes the Cash account therefore, cash is credited (credit means take away) \$4,200.00.

Basic Accounting Entries (4/5)

- ❑ XYZ decided to purchase computer equipment to assist in managing the accounts. Cost associated with the purchase and installation was \$6,000.00. The cost of the equipment was associated with the trading of one asset for another (cash for equipment). The accountant debited "computing equipment" and credited "cash".
- ❑ Benefits of the computing equipment will be enjoyed over several accounting periods, the accrual principle dictates that the purchase not be treated as an expense in the month of purchase. "Computing equipment", an asset account, is increased with a debit entry, and the cash (asset) account is decreased with a credit entry.

Date	Transaction	dr	cr
1/15	Computing equipment	\$6,000.00	
	Cash		\$6,000.00

Basic Accounting Entries (5/5)

- ❑ The cost of an asset, in this case a computing system involves an expense at some time.
 - Accrual convention requires the expense of the equipment be recognized as the benefits of the equipment are enjoyed
 - ❑ The cost is spread over time not at the time of purchase.
 - This periodic expense is referred to as depreciation

Depreciation (1/4)

- ❑ Depreciation to an accountant is an expense item that allocates the historical cost of an asset to the years of useful life
 - The selection of the means of allocating that cost does not necessarily reflect the market value of the asset.
 - ❑ There are several methods to calculate depreciation

Depreciation (2/4)

- ❑ Straight-line depreciation is the simplest means to allocate the cost of an asset over its useful life.
 - For straight-line depreciation, the starting cost is the full historical cost of the asset minus the salvage cost at the end of the assets useful life
 - ❑ The remaining figure is divided by the number of years in the asset's useful life

Depreciation (3/4)

Historical cost of the asset	\$6,000.00	
Minus salvage cost	0.00	
Depreciable basis		\$6,000.00
Divided by est. useful life	3	
Annual depreciation exp.		\$2,000.00

- ❑ The depreciation cost of the computer equipment for XYZ Home Health Care is illustrated in the text above.

Depreciation (4/5)

- ❑ At the end of the first year of the computer system's operation, the entry in the general journal is illustrated below.
 - An expense item, depreciation expense, is increased with a debit entry; however, the cash account is not affected
 - ❑ A contra-asset account, accumulated depreciation is created to receive the matching credit entry

Date	Transaction	Dr	Cr
1/31/20XX	Depreciation Exp.	\$2,000.00	
	Accumulated depreciation		\$2,000.00

Depreciation (5/5)

- ❑ Contra-asset accounts adjust the values of the assets.
 - They are increased with credit entries, just like liabilities
 - ❑ Each year's balance sheet shows the value of assets as "assets less accumulated depreciation"
 - ❑ At the end of an asset's useful life, the accumulated depreciation will equal the historical cost less salvage value
 - Only the anticipated salvage will remain on the books

Accelerated Depreciation (1/1)

- ❑ Organizations subject to taxable income refrain from using straight-line depreciation
 - Depreciation is an expense deducted from net income for calculating income tax liability
 - ❑ Because there is no cash flow associated with the depreciation expense, increasing the depreciation expense and lowering the tax liability actually increases the net cash flow

Accelerated Depreciation (1/2)

- ❑ U.S. IRS code allows taxable organizations to increase depreciation expense to lower tax liability in the early years of an asset.
 - Assets put into place after 1986, the code mandates the use of the **Modified Accelerated Cost Recovery System (MACRS)** tables
 - ❑ The table is based on the useful life of the asset; the current table can be found in the text on page 46.

Accelerated Depreciation (2/2)

- ❑ Organizations are often torn between using straight-line depreciation, which allow the reporting of higher profits to shareholders and accelerated depreciation, which lowers taxable income to the IRS
 - The code allows the use of both, one for shareholders and the other for taxable income
 - ❑ The difference in tax liability between the two methods is placed in a liability account labeled deferred tax liability

Inventory (1/9)

- ❑ Inventory consists of goods purchased or made and held for resale
- ❑ Inventory, especially in health care can be difficult to value
 - Consider the example in the text regarding syringes!
- ❑ Valuation of inventory has to be presented in dollar terms

Inventory (2/9)

- ❑ The value of inventory depends on the method in which the inventory is handled
 - First in – First out (FIFO)
 - Last in – first out (LIFO)
 - ❑ The method chosen reflects not only value reported on the balance sheet but also the cost of the goods sold, an expense that affects net income

Inventory (3/9)

- Regardless of the reporting method, the expense is reported as follows:
 - Cost of goods sold equals the beginning inventory plus net purchases minus ending inventory
 - Beginning inventory and net purchases equals the value of goods available for sale
 - Goods available for sale minus what is left at the end of the period (ending inventory) is the cost of the items sold

Inventory FIFO (4/9)

Date	Quantity	Price per Unit	Total Value
January 5, purchase	200	\$2.50	\$500.00
January 20, purchase	200	3.00	600.00
Available for sale in January	400		1,100.00
Minus January 31, inventory on hand	100		
Sold in January	300		800.00
200 @ \$2.50			
+ 100 @ \$3.00			
January 31, inventory on hand	100		300.00
(100 @ \$3.00)			

- When XYZ HHC on Jan 2, it had no inventory
 - Jan 5, XYZ HHC purchased (for cash) 200 frozen meals @ \$2.50 ea to be resold to clients
 - On Jan 20, 200 additional meals were purchased, however, the price had increased to \$3.00 ea
 - At the end of Jan, What is the end-of-month inventory value and what was the cost of goods sold?

Inventory FIFO (5/9)

- Using FIFO, first meals sold were the first ones purchased
 - The 100 means at the end of the month are presumed to be from the second acquisition
 - Ending inventory value is \$300 (100 x \$3.00)

Inventory FIFO (6/9)

- The cost of goods sold using the FIFO method is \$800
 - $(200 \times \$2.50) + (100 \times \$3.00) = \$800$

Inventory LIFO (7/9)

Date	Quantity	Price per Unit	Total Value
January 5, purchase	200	\$2.50	\$500.00
January 20, purchase	200	3.00	600.00
Available for sale in January	400		1,100.00
Minus January 31, inventory on hand	100		
Sold in January	300		850.00
200 @ \$3.00			
+ 100 @ \$2.50			
January 31, inventory on hand	100		250.00
(100 @ \$2.50)			

- Using the LIFO method, it is presumed the latest inventory purchased is the first sold
 - Using the same calculating methods as FIFO we find the end-of-the-month inventory has a value of \$250 and the cost of goods sold is \$850

Inventory (8/9)

- Note, the use of FIFO or LIFO does not change the physical aspects of the inventory
 - It only changes the reporting
 - LIFO increases the cost of goods sold, thus decreasing taxable income
 - Decreased shareholders value; more importantly reduced cash required to pay taxes

Inventory (9/9)

- Unlike depreciation, organizations must utilize the same method of inventory reporting for taxes & shareholders
 - Technological advances (bar coding) allows organizations to monitor their product from acquisition to resale, either FIFO or LIFO can be used

Revenue, Expenses & Net Income (1/1)

First In-First Out		Last In-First Out	
Revenues		Revenues	
Sales of services	\$6,000	Sales of services	\$6,000
Expenses		Expenses	
Nursing services	4,200	Nursing services	\$4,200
Cost of goods sold	800	Cost of goods sold	\$850
	5,000		\$5,050
Net income	1,000	Net income	\$950

- The table above (3-12) from the text, illustrates total revenues, total expenses, and net income for the month of Jan

Cash Flow Accounting (1/1)

- Cash flow records all the transactions for the month of Jan for XYZ HHC
- Inflows
 - Investor
 - Revenue
- Outflow
 - Nursing svc
 - Inventory

Cash inflows	
Contribution of equity	\$100,000
Revenues	0
	100,000
Cash outflows	
Nursing services	4,200
Inventory purchases	1,100
	5,300
Net cash flow	94,700

Cash flow VS. Accrual Accounting (1/1)

- Under cash accounting, only cash transactions are recorded
 - Under accrual accounting, revenues and expenses are matched to the events that produce them
- Under cash accounting, equity contribution is a cash inflow
 - Under accrual accounting, equity contribution is not a revenue

Fund Accounting (1/3)

- Fund accounting is used by organizations which are not revenue based
 - Includes most health care organizations
 - Fund accounting demonstrates the use of public appropriations
 - Private for profit organizations often use fund accounting to demonstrate the use of assets in the manner donors' and trustees' intended

Fund Accounting (2/3)

- The use of fund accounting artificially divides the entity into subentities called ***funds***
 - Each fund maintains its own set of books

Fund Accounting (3/3)

Journal entries for Mrs. Smith's fund			
Date	Transaction	dr	cr
2/1/20XX	Due from other funds	\$5,000.00	
	Cash		5,000.00
2/15/20XX	2 incubators	5,000.00	
	Due from other funds		5,000.00

Journal entries for Mrs. Smith's general fund			
Date	Transaction	dr	cr
2/1/20XX	Cash	\$5,000.00	
	Due to Mrs. Smith's fund		5,000.00
2/10/20XX	2 incubators	5,000.00	
	Cash		5,000.00
2/15/20XX	Due to Mrs. Smith's fund	5,000.00	
	2 incubators		5,000.00

Hospital Revenues (1/4)

- Uncompensated care
 - It is increasingly difficult for hospitals to measure revenue.
 - To approximate, hospital's patient accounts office can record the charge for services rendered
 - The difference between what the patient is charged and what the hospital receives can be huge
 - Often patients are either charity patients or they fail to pay
 - The fee for these non-paid services are term uncompensated care

Hospital Revenues (2/4)

- Contractual allowance is the term used to identify the difference between the charge for a bed-day and the amount that the hospital agrees to accept from the patient's insurance (third-party payor)

Hospital Revenues (3/4)

- Under the Prospective Payment System (PPS) HCFA imposed a system of contractual allowances on most hospitals in the U.S.
 - For Medicare-eligible patients, HCFA pays a fixed amount per admission based on the patient's DRG
 - DRGs are categories of diagnoses based on the International Classification of Diseases

Hospital Revenues (4/4)

- Medicaid, for the medically indigent, reimbursement varies from state to state

Auditing: The Misunderstood Art (1/3)

- Many users of financial statements pay little to no attention to the auditor's opinion
 - The only guarantees to be taking from the an audit is:
 - The financial statements were prepared according to GAAP
 - the statements mean what an accountant understands them to mean for the period covered

Auditing: The Misunderstood Art (2/3)

- Auditors check a sample of transactions records, the organization's accounting procedures, and the basis for the accounting decisions represented in the financial statements
 - On this basis, the auditors issue opinions
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Auditing: The Misunderstood Art (3/3)

- The auditor's opinion may be:
 - Unqualified
 - Financial statements fairly represent the financial position of the firm
 - Qualified
 - There are exceptions
 - Unfavorable
 - Financial statements do not fairly represent the financial position of the firm)
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Summary

- Accountants have developed a set of rules and procedures for recording financial transactions of health care organizations.
 - Those rules are referred to as GAAP
 - These rules, and the financial statements produced under them (rules), constitute the language of business (health care)
-