I. Accounting Terminology

** Accounting data/information provides the critical inputs needed to derive useful financial information for appropriate financial management practice within contemporary health services organizations.

** Financial Accounting – provides general purpose financial statements/reports to aid various decision making groups. The most commonly produced statements of organizational financial activity used for this purpose are:

1. Balance sheet (a.k.a. consolidated statement of organizational financial position)
2. Income statement (a.k.a. profit/loss statement, revenue/expense statement)
3. Cash flow statement
4. Fund Balances Statement

** Such statements are prepared in accordance with what are referred to as “generally accepted accounting principles” (GAAP). The rationale for such a requirement is to increase the consistency of financial accounting and reporting across all organizations so as to increase the transparency of organizational financial activities to investors/owners of the organization’s assets.

** In addition to the aforementioned financial reports, other reports are intermittently produced from financial accounting data sources such as cost reports for third party payers and pro forma financial projection reports for investors in capital financing.

** Managerial Accounting – preparation of financial information and reports for specific purposes, usually for internal (managerial) uses.

II. Principles of Financial Accounting

** The formal entity for whom accounting data/information is being collected and financial statements are being prepared is referred to as the accounting entity.
The accounting entity may or may not be the same as the legal entity that the organization assumes in a particular situation. For example, in the case of a solo practitioner MD, the accounting entity would be the MD’s practice itself, while the legal entity would likely include the physician himself/herself as well as his/her own personal assets (in the case of a proprietorship). Another example where the accounting entity may be separate and distinct from the legal entity is typically involved in the case of a parent holding company organizational structure, which more and more health services organizations are forming for taxation as well as legal liability reasons.

The accurate measurement of financial “flows” within the accounting entity of record involves the identification and measurement of all organizational resources and obligations, and how these measures change over time.

**Resources** – scarce means that are limited in supply to the organization but nonetheless essential to economic activity within the organization. Examples typically include supplies, buildings, equipment, cash, inventory, accounts receivables, ownership interests in other organizations, etc.

**Obligations** – organizational responsibilities to transfer economic resources or provide services to other entities in the future, usually as a direct result from the past transfer of economic resources from those entities secondary to the purchase of assets, receipt of services and/or acceptance of loans.

One of the most fundamental principles of financial accounting is the principle of **duality**, summarized as follows:

\[
\text{Total Assets} = \text{Total Liabilities} + \text{Net Worth (residual interest)}
\]

All financial transactions that are consummated within the accounting entity must result in the duality relationship remaining constant.

**Duality Examples:**

**Transaction #1**: a physician purchases a new X-ray machine for her office for $50,000 and pays cash to make the purchase.

\[
\begin{align*}
\text{Total Assets} &= \text{Total Liabilities} + \text{Net Worth} \\
50,000 \text{ (Equipment)} + 50,000 \text{ (cash)} &= \text{Total Liabilities} + 50,000 \text{ (Net Worth)}
\end{align*}
\]
** Transaction #2: Hospital ‘X’ purchases the assets of a freestanding ambulatory surgery center, paying a fair market value of $2M, the purchase being financed with $200K of cash and $1.8M mortgage-backed loan from a bank.

Total Assets = Total Liabilities + Net Worth

2M (equipment) + 1.8M (loan) + 200K (cash)

** As can be inferred from the duality relationship described and illustrated above, any difference between total assets and total liabilities as a result of a financial transaction(s) will directly affect the total net worth (residual interest) of the organization.

** Methods of Asset Valuation – determination of the “value” of organizational asset(s) for various financial management purposes.

(1) *Replacement Cost Valuation:* measures the current value of an asset based on the monetary value required to replace that asset under current market conditions. Most useful to use when a significant amount of time (years) has elapsed since the original purpose of the asset. Also used extensively with respect to long-term capital planning/budgeting. Problematic to use due to the rapidity of technological change (especially in health care) and the question as to what constitutes a true “replacement” asset.

(2) *Market Valuation:* measures the current value of an asset if it were sold on the open market under current market conditions (liquidation). Used extensively as a method of asset valuation by creditors. Problematic due to lack of objectivity in establishing market rates for many types of assets, as most markets for resale assets (secondary markets) do not exist for healthcare assets.

(3) *Historical Cost Valuation:* measures the current value of an asset based on the original cost of purchasing the asset. Forms the current basis for the valuation of both organizational assets as well as liabilities under GAAP in most circumstances. More objective than other two methods as it eliminates the uncertainty associated with determining an appropriate replacement asset for valuation purposes and does not rely upon guesswork to estimate market value in the case of missing secondary asset markets.

** Application – calculation of organizational return on investment (ROI) using the various asset valuation methodologies.
**ROI Application (cont’d)**

An outpatient imaging center is considering purchasing a second generation (closed) magnetic resonance imaging machine (MRI). The MRI is valued as follows according to the various asset valuation methods:

- **Historical Cost Value** -- $1M
- **Market Value** -- $800K
- **Replacement Cost Value** -- $1.5M

The asset is projected to produce an annual net cash flow of $100K over its useful life (5 years).

\[
\text{ROI}_{(H)} = \frac{100,000}{1,000,000} = 10\%
\]

\[
\text{ROI}_{(M)} = \frac{100,000}{800,000} = 12.5\%
\]

\[
\text{ROI}_{(R)} = \frac{100,000}{1,500,000} = 6.7\%
\]

**As will be seen later when discussing capital budgeting, such ROI estimates are compared against cost of capital estimates to determine whether or not an organization should purchase the MRI in the first place. The choice of valuation method, as seen here, is critical in terms of the decision to be made.**

**Accrual Basis of Accounting** – economic transactions are recognized when they are made and not necessarily when economic resources change hands between parties (cash). For example, under this GAAP standard of accounting, organizational revenues are recognized (“booked”) when they are earned, not when the monies (cash) are actually received. Similarly, organizational expenses are recognized (“booked”) when they are incurred, not when the monies (cash) are actually paid.

**Example #1**: ABC Home Care bills Medicare for $100K for services rendered to Medicare patients. In this case, ABC’s total assets increase by $100K (increased A/R) and its net worth also increased by $100K as a result.

**Example #2**: XYZ Pharmacy purchases drugs/supplies from its wholesaler totaling $10K on a 30-day net payment cycle. In this case, total assets increase by $10K (increased inventory) and total liabilities increase by $10K (note payable).
III. Financial Accounting Reports

A. The Balance Sheet (a.k.a. statement of organizational financial position)

** Organizational Assets (current, long-term/fixed)
** Organizational Liabilities (current, long-term/fixed)
** Organizational net worth/net assets (contributions, retained earnings)

** Current Assets – economic resources of the organization that are expected to be exchanged for cash or otherwise consumed during the current operating cycle of the organization (generally a year or less)

** Cash: coins, currency, available deposits. May also include negotiated instruments such as money orders, personal/certified checks, and bank drafts. Most liquid form of asset to the organization.

** Cash Equivalents: savings accounts, certificates of deposit, other short-term marketable securities. The intent with such assets is to convert to cash during the organizational operating cycle, as such assets are readily marketable and convertible to cash on short notice.

** Accounts Receivables: includes all legally enforceable claims on organizational customers for prior services or goods provided. The intent with such assets is to convert to cash during the organizational operating cycle. Third party payment issues (allowances, discounts) and average payment terms will affect the extent to which such assets can be converted to cash during the normal operating cycle.

** Inventory/Supplies: organizational resources utilized as part of the delivery of health care services which generates cash for the organization. Relatively speaking, an illiquid form of asset outside of liquidation proceedings.

** Prepaid Expenses: expenditures already made by the organization for the future delivery of services from other entities (e.g. insurance premiums, rent/lease expense on equipment, etc.)
** Long-term (Fixed) Assets – economic resources of the organization that will be either (a) converted to cash beyond the current operating period of the organization, or (b) will not be converted to cash beyond the current operating period but, instead, will be used to generate cash to the organization over the asset’s useful life as a result of the use of the asset.

** Property and Equipment: capital assets of the organization; these assets have useful lives over multiple years for the purpose of generating cash for the organization. Asset values for property and equipment are usually listed in terms of historical cost less accumulated depreciation (except for land) at a given point in time in the asset’s useful life. Examples include land, land improvements, buildings, equipment, construction in progress, etc.

** Miscellaneous Organizational Assets

** Restricted Assets: more commonly associated with not-for-profit organizations that use fund accounting. Such assets are typically obtained by NFP organizations as a result of a tax-exempt donation/contribution with stipulations made by the donor as to how such funds should be utilized by the organization. Such assets may be temporary or permanent depending on donor specifications for use. Organizational use of said assets is typically restricted to specific uses due either to board restrictions or 3rd party restrictions.

** Investment Assets: assets derived from organizational partnerships, joint ventures, and ownership of marketable securities (stocks, bonds).

** Intangible Assets:

** Goodwill: difference between the market price paid to acquire another entity/organization and the fair market value of the acquired organization’s assets, less any related obligations/liabilities. (legal issues with NFP organizations related to private inurement – use of charitable/tax-exempt resources to produce private gain).

** Organizational Costs: prepaid expenses incurred at organizational startup that are amortized over a period of several years (legal, accounting costs).
**Organizational Liabilities:** represent the economic obligations of the organization to its workers, creditors, and taxes. In combination with owner's equity/residual interest, represents the total amount and mix of capital raised by the organization to acquire economic resources/assets. Such obligations are fixed by contract; failure of the organization to pay its obligations as required by contract (more specifically, its unsecured or non-collateralized obligations) leads to default and possible liquidation. In the event of default with subsequent liquidation of organizational assets, creditors (lenders) obligations must be met first before equity obligations can be met, if at all.

**Current Liabilities:** obligations of the organization that are due to be paid within the current operating cycle. Most common examples include current obligations on long term debt (mortgage payments), short-term debt obligations (notes payable), accounts payable (current amounts due to suppliers for assets purchased), and accrued expenses (employee wages/benefits, accrued utility expenses, accrued tax liability, IBNR expenses (capitation)).

**Long-Term Liabilities:** longer-term obligations of the organization (>1 year). Examples include interest and principle due to banks, bondholders, and other creditors over the longer term, and general obligations under lease-rent arrangements (equipment).

**Owner/Shareholder Equity:** represents the residual value of the organizational enterprise (total assets - total liabilities). Also referred to as net assets for NFP organizations, and net worth for other types.

**For the for-profit organization,** organizational equity may be paid out in the form of dividends to organizational shareholders/owners and/or may be reinvested back into the organization in the form of retained earnings/equity.

**For the not-for-profit (tax exempt) organization,** the law requires that all net assets be reinvested back into the organizational enterprise in support of the organization's charitable mission(s).

**The reporting of shareholder equity/net assets also varies between not-for-profit and for-profit organizations.** While NFP's most often report net assets as a single category on the consolidated balance sheet, for-profits typically break out the reporting of net worth into several different categories/accounts on the consolidated balance sheet such as retained earnings, equity stake by shareholder class/category of ownership (e.g. preferred stockholders vs. common stockholders).
B. The Income Statement (profit/loss statement, statement of operations)

** Unlike the balance sheet, the income statement contains the operational results of the organization over a period of time as opposed to a single point-in-time.

** The primary components of the income statement are sources of organizational revenue, sources of organizational expense, and organizational net income (total revenues less total expenses).

** Sources of Organizational Revenue (Cash):

** The majority of HSOs derive the majority of their operational revenue from providing services to patients. Such revenues, once earned, are reported on the income statement (accrual basis) net of any applicable adjustments (discounts, charity care, bad debt).

** Losses in projected revenue collections due to bad debt (i.e. person able to pay but revenue not collected) are not backed out of the reported estimate for net patient revenue, but are instead listed separately as an operational expense to the organization.

** For capitated contracts/services provided, premium revenues collected (PMPM) are reported in month received.

** Other minor sources of revenues for HSOs include revenues derived from investment activities (interest, dividends), charitable contributions (NFP’s), and revenues derived from non-related activities (NBI).

** Sources of Organizational Expense:

** *Labor*: largest line-item expense for most HSOs. Includes expenses related to employee salaries, wages, and benefits, both actual as well as any accrued expenses incurred during an operating period.

** *Supplies*: cost of supplies used in generating organizational revenue (COGS). Total does not reflect cost/expense associated with unused inventory -- this "expense" is listed on the balance sheet (type of current asset).

** *Purchased Services*: services provided by sub-contractors to the HSO (capitated contracts, vendors)
** Lease Expense: organizational expense associated with leasing buildings, plant, equipment, etc.

** Depreciation/Amortization Expense:

** Depreciation expense is a non-cash form of organizational expense related to the allocation of the cost of using a fixed asset over the period of its useful life.

** Under current tax law, depreciation expenses associated with the use of long-term assets must be calculated in accordance with GAAP on the organization's income statements.

** The most commonly utilized (and GAAP approved) method of depreciation in the straight-line method, where the allowed depreciation expense per year per asset is estimated as follows:

\[
\text{Depreciation Expense} = \frac{\text{Historical Cost of Asset} - \text{Salvage Value of Asset}}{\text{# Years of Useful Asset Life}}
\]

** The net result of this calculation is a fixed depreciation expense that the organization "books" over the asset's useful life.

** The listing of depreciation as a non-cash expense has the effect of reducing the for-profit organization's taxable income (NIBT), while effectively increasing the for-profit's cash flow as a result of reducing its taxation.

** Amortization expense results from the allocation of the value associated with the purchase of intangible assets as part of a merger/acquisition of another organization (goodwill).

** Bad Debt Expense: as stated above, these represent expenses to the organization as a result of non-collectable patient charges not related to charity care or various contractual allowances.
** Interest Expense: expense associated with the payment of interest during the current operating period to creditors on various forms of debt (short-term, long-term).

** Miscellaneous Expense: general administrative expenses too small (on a line item basis) to list separately.

** Net Income -- difference between total revenues and total expenses, also known as the "bottom line" for most organizations as NI/NIBT is usually listed as the last line on the organization's income statement.

** Both for-profit as well as not-for-profit organizations must generate sufficient net income in order to meet short-term obligations as well as remain financially viable over the long term.

** It is this excess of revenues over expenses that allows for-profit organizations to pay its shareholders dividends as well as generate future growth opportunities vis-à-vis the use of retained earnings to fund capital investments. It is also this excess of revenues over expenses that allows the not-for-profit organization to reinvest its excess revenues into providing more services that benefit the community.

** According to GAAP, net income is the most direct measure of organizational profitability. The "real" effect of net income on organizational profitability/cash flow must take into account depreciation, which, as a non-cash expense, should be added back to NI/NIBT to estimate the cash equivalent of net income. For the for-profit organization, depreciation is added back to after-tax NI (not NIBT)

C. The Cash Flow Statement

** A summary financial statement of all sources and uses of organizational cash during an operating period.

** Increasingly, the cash flow statement is utilized along with the balance sheet and income statement for purposes of scrutinizing the organization's operations in terms of cash flow and the timing of cash flows, the most critical factors associated with the organization's ability to meet its general obligations.
The cash flow statement, unlike the balance sheet and the income statement, utilizes a cash accounting approach to the estimation of cash flows to/from the organization (the former two typically utilize an accrual basis of accounting for revenues/expenses and assets/liabilities). That is, cash is not "booked" either as an inflow or outflow to/from the organization until the cash is actually physically transacted between the organization and another party.

For example, in the case of the balance sheet, the accrual basis of accounting allows for the "booking" of revenues associated with accounts receivables as a current asset once those revenues are earned, though the cash has not yet been received. Such revenues, however, would not be "booked" on the cash flow statement until the cash/cash equivalent was actually received by the organization.

The relevance of the cash flow statement as a measure of the organization's ability to meet its current (and future) obligations should be fairly clear in the above example. An organization that has a substantial amount of A/R with a lengthy average A/R time may look great in terms of the balance sheet but still have to borrow money frequently to meet its current obligations due to the timing of cash flows. Such borrowings (and the cost involved) will eventually show up on the balance sheet, but the problem associated with insufficient cash flow will show up much quicker on the cash flow statement.

The statement of organizational cash flow is typically reported as a series of organizational accounts into/out of which cash may be debited/credited throughout the operating period:

** Cash Flow from Operations -- net income (+/-), non-cash expenses (+), changes in A/R (+/-), changes in inventory (+/-), changes in A/P (+/-), changes in accrual accounts (+/-).

** Cash Flow from Investments -- interest income and dividends (+), capital gains (+) and/or losses (-) from equity investments.

** Cash Flow from Financing -- interest payments, dividend payments (-), proceeds from financing activities (+).

In terms of summary measures from the cash flow statement, the end of fiscal year cash balance overall as well as in each category reflects the total balance (if any) left in each account as well as the net change in cash balance overall as well as in each category.