Up until this point, the majority of the financial management emphasis has been on sources and uses of long term capital within the organization, which necessarily has a strategic focus due to the long-term nature of such types of financial decisions.

Contrasted with long term sources and uses of capital, those sources and uses of capital that are largely devoted to supporting the near term operations of the organizational enterprise are collectively referred to as working capital. The principles and practices associated with the financial management of these types of capital are referred to as working capital management.

Working capital management includes the consideration of a number of important issues related to the short term financial management of the organization such as short term investment and financing policies, cash and marketable securities management, management of receivables and inventory accounts, etc.

In terms of formal balance sheet accounts within the organization, contemporary working capital management involves ALL current asset accounts (cash, marketable securities, receivables, inventory, etc.) and most current liability accounts. The primary goal of working capital management is to provide for the necessary working capital needs of the organization at the lowest possible cost.

Commensurate with the goal of ensuring appropriate levels of working capital to support operations, organizations must maintain adequate levels of current assets over time and maintain adequate liquidity in those current asset accounts to provide for the cash needs of the organization over time.

Health services organizations vary from one another significantly in terms of their implementation of a specific approach to working capital management, with some HSO’s pursuing more aggressive current asset investment and financing policies than other HSO’s. Historically, most HSO’s utilized a “middle of the road” approach on both counts, where the mix of current asset financing was typically matched (in terms of maturity) with the maturity of the current assets themselves.

On one end of the working capital management spectrum, some HSO’s choose to pursue more aggressive current asset financing/investment strategies, primarily for the purpose(s) of reducing current asset financing costs and/or increasing the returns on current asset investments. Other HSO’s pursue a much more conservative capital asset management policy, either due to organizational restrictions and/or management orientation.
Current Asset Management Principles and Practice

Cash Management – the most liquid of all current assets, and obviously the most necessary current asset to meet current obligations (payroll, supplies, etc.). The goal of cash management practice is to ensure that the organization has an adequate amount of cash available WHEN NEEDED to meet its current obligations. Achieving this goal requires that the organization neither keep too little nor too much cash on hand at any given point in time, consistent with the consideration of the direct and indirect (opportunity) cost associated with holding cash.

The primary tool utilized by organizational management to manage its cash position over time is the cash budgeting process. Developed by financial management staff and continuously updated to reflect recent conditions, the cash budget allows a number of other cash management activities to be conducted including cash flow synchronization, acceleration of cash receipts, and control of cash disbursements.

Effective use of cash flow synchronization, whereby the organization increasingly matches the timing of cash flowing into and out of the organization, allows the organization to reduce the required cash balance that they must keep on hand at any one time, and also increases the predictability of such flows.

Net float cash position refers to the difference between the cash balance on the organization’s books versus the cash balance on the books of its financial intermediary, most typically a bank. In terms of cash management, organizations attempt to maximize their net float position (disbursement float less collection float) at any given time by taking steps to accelerate its collections/receipts while simultaneously slowing its disbursements.

The most commonly utilized methods for accelerating cash receipts includes the use of lockboxes, concentration banking, automated clearinghouses, and federal reserve wire system. The most commonly utilized methods for slowing cash disbursements include the centralization of accounts payable, the use of master and zero balance accounts for certain cash transactions, and/or controlled (remote) disbursement techniques.

Cash management has historically been subject to significant economies of scale, arguing for the centralization of most cash management functions within a large organization, and contracting with large financial intermediaries with respect to smaller organizations.
It is also true that, although effective cash management is necessary to ensure organizational performance overall, it is more critical during those periods of time within the organization when the opportunity cost of cash is higher (e.g. periods when interest rates are high, cash flow is tighter than usual, etc.)

**Marketable Securities Management** – another major category of current assets for most organizations that is slightly less liquid than cash for the purpose of meeting current obligations. Such assets, sometimes called short-term investments (CD’s, savings accounts, money market accounts), are purchased by the organization using excess cash that accumulates from time to time to “substitute” a return-generating asset for a non-return-generating asset and/or to account for cash flow uncertainties over time and/or to fund a known short term need in the near future. In practice, marketable securities management practices are indistinguishable from more general cash management practices.

The primary criteria that are utilized to select among short-term investment (marketable securities) alternatives are the safety of the investment and its liquidity, with investment returns typically of secondary importance (contrast with long-term/capital investment decisions).

Most short-term investment alternatives typically are low/no risk (minimal default and interest rate risk due to the short-term nature of these investments), pay minimal returns that will vary based on the underlying conditions in the investment marketplace, and are short-term in terms of investment horizon (most less than a year in terms of investment maturity).

Smaller organizations will typically invest in marketable securities/funds that are offered through the financial intermediaries with which they do business, whereas larger organizations that typically invest larger sums of cash in short term marketable securities will typically buy such securities on the open market(s) for such securities.

**Receivables Management** – a highly significant current asset category, especially so for those organizational enterprises that do a significant amount of business on credit (third party payment), as HSO’s do to a substantial degree (80-90%). Carrying such potentially large balances of receivables, as with any other current asset, requires some sort of financing from the right hand side of the balance sheet (debt and/or equity), which imputes a cost to the organization (cost of capital). Receivables management requires that the organization accelerate collections so as to minimize their receivables carrying costs.
Given the nature of the health care business enterprise and the preponderance of third party payment, HSO’s are increasingly devoting significant resources and effort to actively, and aggressively, manage their receivables accounts so as to reduce their A/R carrying periods and average A/R balances.

The A/R balance at any given point in time is affected by two different phenomena: (1) the volume of credit sales (ADS), and (2) the average length of time between sales and actual collection (ACP). As either/both ADS and/or ACP increase over time, the organization’s A/R balance will increase as well. The relationship between each of these variables is given below:

\[
\text{Avg. A/R balance} = \frac{\text{Avg. ACP}}{\text{Avg. Daily Credit Sales}}
\]

As part of the receivables management process, organizations will actively monitor each of these three measures of receivables activity to detect any significant “deterioration” in the organization’s receivables position over time – i.e. an increase in average A/R balance, an increase in ACP, etc. Such measures can be compared with historical data within the organization and/or industry/benchmark data for comparative purposes.

One problem with utilizing the above approach to receivables management is that both average A/R balance and ACP are directly affected by ADS, or average daily credit sales, which will also often exhibit seasonal variations over time. Thus, during periods of time when ADS is increasing in a seasonal fashion, there will be a LAGGED increase in both ACP as well as average A/R balance even if payment terms/receipts don’t change. Failure to account for the seasonal/cyclical effects of changes in ADS on ACP and average A/R balance may lead to the erroneous conclusion that receivables are deteriorating due to poor management of ACP.

An alternative approach to receivables management is through the use of aging schedules of the organization’s receivables accounts, which breaks out all of the organization’s receivables by the age of the account and/or by payer group. Like the ACP approach, however, the use of aging schedules to manage receivables is prone to the same types of misinterpretation due to the presence of cyclical/seasonal/secular trends in credit sales, where increasing or decreasing sales trends can (temporarily) skew the age of receivable accounts, potentially leading to erroneous conclusions regarding current receivables management.
A preferred method of receivables management that factors out the effect of fluctuations in credit sales over time makes use of the concept of an uncollected/outstanding balances schedule. Such a schedule translates an end of period outstanding receivables amount for a given month into some percentage based on that month’s total credit sales. Such a process is repeated for each month during the current operating cycle.

For example, at the end of the month of March, 20% of January’s receivables might still be uncollected/outstanding, which is estimated by dividing January’s outstanding receivables by the total credit sales in that month. 60% of February’s receivables may also still be outstanding by the end of March, 90% of March’s receivables may still be outstanding, and so forth.

In this instance, changes in the percentages associated with outstanding receivables balances would signify changes in the organization’s receivables position, factoring out any specific changes in average credit sales over time. Where such a method suggested a significant deterioration in the organization’s receivables position (i.e. an increase in the outstanding percentage of receivables over time), the need for managerial intervention is most likely warranted.

In terms of the most commonly utilized approaches to receivables management, the formulation and enforcement of a reasonably aggressive receivables collection policy and the increased use of electronic billing/payment technologies have been most commonly adopted for this purpose.

**Inventory Management** -- similar to accounts receivables, inventory is an absolutely essential current asset category as it relates to maintaining current operations. Similarly, both inventory and A/R levels tend to increase as business sales increase. On the other hand, whereas A/R increases secondary to increases in sales, inventory increases must be anticipated prior to increases in projected sales, which requires that sales projections be established for the purpose of determining the appropriate level of inventory over time. Inventory management is thus incredibly essential to maintain adequate inventory levels in the face of future uncertainty, and also the most difficult of all current assets to manage. Failure to do effectively manage inventory can lead to critical shortages of needed supplies or excess inventory sitting on a shelf, eating up space as well as needed cash for other uses.
Due to the importance of maintaining adequate levels of inventory within HSO's and the concomitant need to preserve cash flow, virtually all larger HSO's have adopted increasingly aggressive and sophisticated methods of inventory control centered around the use of computer-based inventory control systems and just-in-time inventory methods.

Computerized inventory control systems were the first to be adopted by HSO's as a method to streamline/improve the inventory management process. Such systems, in the earliest forms, were utilized for the purposes of inventory tracking and automated inventory ordering capabilities, largely taking much of the guesswork out of determining what to order, when to order, and how much to order based on current use.

The adoption of just-in-time inventory methods is the most recent inventory management technique increasingly being used by larger HSO's as part of a more general supply chain management approach to reducing the costs associated with carrying inventory.

In its most typical application, the HSO "sells" most of its inventory (save for some minimal "based inventory" that it keeps on hand) to one or more of its largest inventory suppliers (wholesalers, manufacturers). The supplier(s) then contractually agree (for a service fee) to provide the HSO with the appropriate quantities and types of supplies on an AS NEEDED (or just in time) basis. Such supplies are ordered and delivered, typically the same day, to the specific areas where needed. Such an approach to JIT methods is referred to as stockless inventory methods.

The use of JIT inventory methods across most larger HSO's has also been associated with a more general shift towards the outsourcing of materials management functions by HSO's, where HSO's increasingly do not own (or desire to own) the majority of the supplies they use to provide patient services, but rather buy such supplies in real time on an as needed basis, all presumably for the purpose of conserving cash flow by reducing inventory costs.

**Economic Ordering Quantity Model**: conceptual model that describes/quantifies the relevant variables that decision makers consider when making inventory management decisions. According to the model as specified, organizational managers attempt to minimize the explicit costs (more below) associated with carrying a certain level/range of inventory (based on sales projections).
The EOQ model identifies three categories of inventory costs: (1) inventory carrying costs; (2) inventory ordering costs; (3) stock-out costs. Of these three inventory cost categories, only the first two are directly measurable, and thus of most relevance in terms of the model's predictions.

Inventory carrying costs (ICC) generally increase in direct proportion to the average amount of inventory carried by the organization, which, in turn, will be affected by the frequency of orders placed. Such costs include consideration of inventory financing costs (estimated as average inventory held times the interest expense associated with the use of short-term sources of financing), the cost of storage space, insurance costs, and inventory depreciation/waste costs. Such costs (ICC) are typically expressed as a percentage of total inventory cost.

Total inventory carrying costs (TCC) are estimated as follows:

\[ TCC = ICC \times P \times Q/2 \]

Where ICC are those inventory carrying costs described previously, P represents the average unit cost of inventory purchased and Q/2 represents the average units of inventory held by the organization over the defined period.

Inventory ordering costs (IOC), unlike inventory carrying costs, are assumed to remain fixed within most plausible ranges of inventory ordering frequency. Examples of such costs include the cost of placing and receiving inventory orders, miscellaneous supplier overhead costs, etc. Total IOC is estimated as the product of the IOC (per order) and the average number of orders placed in a given period.

The total cost of inventory (TIC) is simply the sum of ICC and IOC as calculated above. Differentiating this equation with respect to Q and setting the resulting equation equal to zero allows for the definition of the Economic Order Quantity (EOQ), where TIC is minimized for the organization. This point represents the optimal ordering quantity of inventory per order, and is represented by:

\[ EOQ = \left(\frac{2 \times IOC \times S}{(ICC \times P)}\right)^{1/2} \]
Where IOC represents the fixed inventory ordering costs per order, S represents that total anticipated inventory purchases (in units of inventory), ICC represents the inventory carrying cost (expressed as a percentage of average inventory value) and P represents the average purchase price per unit of inventory.

Given S (total projected inventory usage per unit of time) and EOQ (optimal level of inventory to purchase per order so as to minimize TIC), the organization could then estimate the approximate number of times it should place inventory orders per unit of time.

Note that these inventory costs DO NOT include the actual purchase price associated with the inventory itself, but only consider the carrying and ordering costs associated with that level of inventory. It should also be noted that ICC and IOC will be equal to each other (and TIC will be minimized) at the EOQ as defined in the model.

The most typical application(s) of the EOQ model is to examine issues such as reorder points, safety stocks of inventory, and the impact of quantity discounts on inventory decision making.

** Current Liability Management Principles and Practices

As it relates to the management of working capital within the organizational enterprise, consideration of a couple of specific categories of current liabilities -- accounts payable (A/P) and accrual accounts -- is also relevant, as both categories of liabilities can serve as sources of short term working capital to the organization if managed appropriately.

Accrual accounts are utilized for the purposes of accounting for expenses that have been incurred but not yet paid. Such expenses, as discussed before, can include accrued personnel expenses, accrued taxes, etc.

Accrual accounts are considered a spontaneous form of financing, as increases in accrual accounts represent an interest free form of short term financing/cash for the organization to meet its short term obligations. Control over the timing and specifications of such accrual accounts is usually beyond the control of the organization, but they typically should make use of such a large source of current financing to the extent that they are able to improve their working capital position.
** The use of A/P, or trade credit, is typically the largest source of short term debt available to most organizations. Like accrual accounts, A/P is also considered a source of spontaneous financing for the organization, in that it arises out of the organization's ordinary business transactions.

** Both the volume of credit purchases (A/P) as well as the credit terms extended by the supplier affects the amount of short-term financing available in the form of A/P. As credit purchase volume increases, average A/P increases; also, as credit terms are extended over longer periods of time, A/P increases as well.

** In terms of working capital management, the relevant costs to consider as it relates to the use of A/P as a source of short-term financing are free trade credit and costly trade credit.

** Most suppliers of trade credit (A/P) will extend terms such that the purchasing organization receives a discount (2-5%) for paying early, with normal credit terms (full price for purchases) extended to some point beyond the "early bird special" period.

** In this instance, purchasing organizations should make complete use of the free trade credit (discounted terms) by utilizing the total A/P amount for the entire period granted by the supplier. The choice of whether to continue to use the entire A/P amount for the rest of the trade credit period (30-60-90 days) depends upon how "costly" the extended credit is to the organization. This increased cost is estimated as follows:

\[
\text{Trade Credit (A/P) cost} = \frac{\% \text{ discount offered}}{100 - \% \text{ discount offered}} * \frac{360}{(\text{Total Credit days} - \text{Discount period})}
\]

** In this case, if the estimated trade credit cost is greater than the cost of short-term financing from other sources, the organization would be better off not to use the costly trade credit for short-term financing purposes, but to continue to use the free trade credit as much as possible.