GAHE 2023 Tutorial

Review of Accounting & Finance (Part 1)

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Disclaimer!

- This is an "Overview" or "Review" webinar
- **Not** a formal course in Accounting & Finance
- Purpose: Help with BOG Exam preparation
- **NOT for "Real world"** Accounting, Tax preparation, Financial Statement preparation, budgeting, capital planning, …………etc.
- Perspective, only
    - Stand-alone (Independent),
    - Not-for-profit,
    - Community,
    - Hospital
    - Multi-specialty Physician Group Practices
- **Recommended HW: Read an Audited Financial Statement for a health system from cover to cover**

Definition

- Finance is the planning, development, establishment, analysis and assessment of financial management processes for an organization's capital, budget, accounting and related reporting systems.

Finance Section of BOG Exam

12% of total – 24 questions

- Knowledge of financial accounting principles needed to analyze and interpret financial reports (e.g., which ratios to look at given your current concerns)
- Knowledge of operating budget principles (e.g., fixed vs. flexible, zero based, variance analysis)
- Knowledge of capital budgeting principles (e.g., funding sources, long-term implications of capital planning, such as depreciation)
- Knowledge of reimbursement methodologies and their ramifications (e.g., managed care models, national/state programs, value-based, fee-for-service)
- Knowledge of fundamental productivity measures (e.g., hours per patient day, cost per patient day, units of service per labor hour)
- Knowledge of financial controls (e.g., internal systems for accounts payable, checks and balances, auditing principles).
- Knowledge of revenue generation (e.g., billing, coding, new ways to foster revenue, pricing strategies)
- Knowledge of how to justify a business model (e.g., make a business case for a new project to gain shareholder support)
- Knowledge of potential impacts and consequences of financial decision making on operations, healthcare, human resources, and quality of care
- Knowledge of asset management (e.g., depreciation schedule)
- Knowledge of financing, including funding sources, the process of obtaining credit and bond ratings, and issuing bonds
- Knowledge of philanthropy and foundation work (e.g., as source of funding for non-profit organizations or to target for-profit organizations' activities)
- Knowledge of supply chain systems, structures, and processes
- Source: https://www.ache.org/fache/the-board-of-governors-exam/board-of-governors-exam-outline

Topics (broadly speaking...)

- “Financial” Accounting
- Budgets: Capital & Operating Budgets
- Revenue: Reimbursement & Revenue cycle
- Expenses: Productivity, Supply chain
- Business Plans (e.g. for new services)
- “Financing”
  - Debt (bonds)
  - Equity
  - Foundations (Philanthropy)
- Value based payments & Capitation Models (ACO)

Pause Here!

- This video/presentation will cover **basics of accounting/finance**
- For those who are familiar with finance, it may be too basic/simple/repetitive
- The next presentation will cover more advance topics in healthcare finance
- Parts of this presentation are based on GAHE BOG 2021 Tutorial by Rahul Ghotge

Accounting

- Financial Accounting
- Managerial Accounting
  - Cost Accounting
- "Cost Report Accounting" (for health care only!)
- Tax Accounting (Many hospitals are Not-for-profit)

- **Accounting is Retrospective! (Reporting on past results)**
- Accounting: Is it Science? *Or Art?*

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Accounting (Continued)

- Cash-basis Accounting
  - Economic events are recognized when the financial transaction takes place.
  - Revenue is recognized when it is received
  - Expenses are recognized when they are paid
  - Smaller Organizations
  - Cash is more immediate
- Accrual Accounting
  - Economic events are recognized when they occur
  - Match revenue and expenses
  - Revenue is recognized when it is earned
  - Expenses are recognized when they are incurred

- In Healthcare
  - Cash receipts often delayed
  - Accounts Receivable are relatively "large"
  - Accrual accounting aligns revenue and "cost of goods sold" (COGS)

- Accrual Accounting from this point forward

Accounting – Back to School Acronyms & “Jargon”

- GAAP – Generally Accepted Accounting Principles
- FASB - Financial Accounting Standards Board
- ASC - Accounting Standards Codification
- 3 Main Financial Statements are Balance Sheet, Income statement (aka Statement of Operations) & Statement of Cash Flows
- 4th Financial statement is Statement of Net Assets (f/k/a Fund Balance)
- IFRS-International Financial Reporting Standards
- AICPA- American Institute of Certified Public Accountants
- SEC – U.S. Securities and Exchange Commission
- HFMA – Healthcare Financial Management Association
- Audited Financial Statements
- Auditor’s opinions
    - Unqualified opinion
    - Qualified opinion
    - Adverse opinion

Accounting – Back to School (continued)

- “Account”/ T –Account
- Debit Account
- Credit Account
- Asset Vs Liability
  - Contra Account
- Line Item
- Principle of “twin entry/double Entry”
- “Debit” Vs “Credit”
- “Stock” Vs “Flow”
- “Recognize revenue”
- “Cash” Vs “Non-cash”
- Debt Vs Net Assets

- Accounting Principles
  - Separate Entity (Accounting Entity)
    - Consolidating Vs Consolidated Financial Statements
  - Going Concern (more than 1 yr)
  - Historical cost (not market value)
    - Mark to Market?
  - Accounting period (
  - Objectivity and reliability
  - Monetary unit
  - Full Disclosure
  - Materiality
  - Conservatism
  - Consistency and Comparability

FS – Balance Sheet

- Words to Remember
  - Snapshot (period in time)
  - Single Point in Time (**<u>Date of the balance sheet</u>**)

- Provides point in time picture of **<u>financial position</u>** of an organization.
- Assets, Liabilities & Net Assts (f/k/a Fund Balance)
- Balance Sheet Identity
  - **<u>Assets = Liabilities + Net Assets</u>** (Always true)

What does Balance Sheet represent?

Left Hand side of the Balance Sheet

- Assets
- Represents
  - “what are things that can generate cash?
  - “What did the cash buy?”

Right Hand side of the Balance Sheet

- Liabilities & Net Assets
- Represents
  - “who gets that cash?”
  - “Who gave the cash?”

Assets = Liabilities + Net Assets

Why “twin entry/double entry”? to keep the “balance”

Balance Sheet Structure

Accounts are usually listed in order of liquidity

- Assets
- Current Assets (<12 months)
  - **Cash!**
  - Accounts Receivable
  - Inventories
  - Prepaid
  - Limited Use Assets, Other Receivables, Third Party payer Settlements, etc.
- Non-current Assets
  - Assets Limited as to use
  - Fixed (Tangible) Assets
  - Intangible Assets
  - Investments
  - "Other"

Assets = Liabilities + Net Assets

- Liabilities
  - Current Liabilities (<12 months)
    - Labor (Salaries)
    - Accounts Payable
    - Current Portion of debt (Notes, Bonds, lease payments)
    - Third Party payer Settlements
  - Long Term Liabilities
    - Long term debt
    - Pension Liability
    - Contingent Liabilities
    - *Other: Anything else*
- Net Assets / Equity
  - Preferred Stock (for profit)
  - Common Stock (for profit)
    - Par Value
    - APIC (Additional Paid in Capital)
  - Retained Earnings
  - Treasury Stock (for profit)
  - Minority Interest

Current Assets

- Cash (more on this later)
- Remaining accounts represent "Opportunity cost"
  - Carrying Cost (of inventory)
  - Accounts Receivable (service is provided but cash is not received)
  - Prepaid Assets (cash is paid but service is not yet received)
- Simple Definition of Net Working Capital
- **Net Working Capital = Current Assets - Current Liabilities**

Accounts Receivable (AR)

- AR represents cash to be received in "future" for services "already provided"
- "Billed but not collected"
- Some of this AR "may not be collected"
  - Allowance for ***uncollectibles*** (bad debt) {Example of a **contra-asset**}
- **Net AR** represents AR "net of such allowance"
- Policies and Procedures for AR management
  - Collection Policies
  - How is allowance calculated ? Increased? Decreased?
  - What happens when some AR is written off?
- **Lock Box – direct payment to bank to shorten time to deposit**

AR Days

- Formula
  - Days in AR/ AR days represents “amount of time required to convert AR into cash”
  - Days in AR = Accounts Receivable / (Annual revenue/365)
- If a hospital has annual revenue of $500 Million and the Accounts Receivables is $70 Million. Calculate the AR days. (Answer: 51 days)
- If a hospital has annual revenue of $400 Million and the days in AR are 54. Calculate the Accounts Receivables balance. (Answer: $ 59 Million)
- If a hospital has annual revenue of $750 Million and the Accounts Receivables is $83 Million. According to peer benchmarks, the median for days in AR is 44 days. *Is this hospital performing better or worse than peers?* (Answer: 40.39 days which is lower than peers. **In AR, lower is better**)

Fixed Assets & Capital Expenditures

- Fixed (Tangible) Assets
  - PP& E- Property, Plant & Equipment
  - Depreciation (**This is not a balance sheet item. It is an income statement item**)
    - Straight Line, based on Useful life of the asset (most common)
    - Accelerated Depreciation
      - Double declining balance
      - Sum of digits
      - MACRS (Modified Accelerated Cost Recovery System**)**
  - Accumulated Depreciation {Contra Asset} (**This is a balance sheet item**)
- If a new hospital was built for $100 Million today. Useful life is 20 years. (Assume no other capex for next 20 years)
  - Annual Depreciation Expense is ______? (Answer: $5 Million)
  - What will be the accumulated depreciation at end of 5 years? (Answer: $25 Million)
  - What is the net value of PP&E at end of 7 years? (Answer: $65 Million)

A Little more about …Assets

- Inventory
  - FIFO Vs LIFO Vs Average cost
- Some Assets may be "limited as to use"
  - Donor restrictions
  - Bonds
  - Held by Trustees
  - "Reserved" by Board for capital investments
  - Other Reasons
- Intangible Assets
  - Intellectual Property (Patents, Trademarks, customer lists, etc.)
    - If bought – put on balance sheet "at cost"
  - Goodwill
  - Impairment
  - Amortization
- Investments (liquid vs non-liquid

Days in Accounts Payable (AP)

- Formula
  - Days in AP/ AP days represents “amount of time since organization has received goods/services, but has not yet paid cash”
  - Days in AP = Accounts Payable / (Annual Cost of Goods Sold/365)

  - If a hospital has COGS of $700 Million and the Accounts Payable is $81 Million. Calculate the AP days.
    - Answer: AP days are 42.24 days.

Debt

- Current Portion of Long Term Debt
  - (due within 12 months)
- Long Term Debt
- Recorded at Face Value (real $$ to be repaid)
  - Not market value
  - What happens when interest rate changes?
- Debt is “senior claim on cash”
  - Debt will have to be paid before anything is paid to equity owners
  - Hierarchy of debt: “Senior Debt”

Statement of Share-Holders’ Equity

- Discussion related to “for-profits”
- Residual Interest/ Residual Claim/ Junior Claim
  - The owners get “remaining cash” after everyone else is paid
- Common Stock Vs Preferred Stock
- Hierarchy of claims (in this order)
  - Current Liabilities(Salary+AP+Other) 1st
  - Long-term Liabilities
  - Preferred stock
  - Common stock/common equity
- Not-for-profit hospitals
  - Net Assets
  - Restricted (dedicated for specific use– example “restricted by donor for purchase of medical equipment”
  - Unrestricted

Income Statement aka Statement of Operations

- **Accrual** accounting: match **expenses** (not cash paid) to **revenue** (not cash collections) **over a period of time**
  - Economic events are recognized when they occur
  - Typically, when services are provided
  - Match revenue and expenses (Basic Accounting Concept)
- **Revenue Recognition**
  - Revenue is “recognized” when it is earned
- **Expense Recognition**
  - Expenses are “recognized” when they are incurred

Income Statement For Profit

Income Statement of a Hypothetical Hospital	
	FYE- August 20xx
Top Line Charges/ Gross Patient Revenue	
Outpatient Gross Revenue	2,296,652,436
Inpatient Gross Revenue	689,545,033
Other Gross Revenue	34,101,378
Total Gross Patient Revenue	3,020,298,847
Total Contractuals	2,032,533,743
Patient Revenue Net of Contractuals	987,765,105
Provision for Bad debts	253,134,501
Total Provision for Bad Debts	253,134,501
Net Patient Revenue	734,630,604
Miscellaneous Income	29,182,437
Total Operating Revenue	763,813,041
Salaries	295,163,188
Benefits	95,208,757
Contract Services	31,452,489
Supplies	148,882,630
Shipping/Mileage	1,223,583
Purchased Services	39,542,107
Depreciation & Amortization	41,272,917
Interest Expense	16,860,310
Other/Miscellaneous	3,560,325
Total expenses	673,166,305
Income from operations	90,646,735
Non-Operating Income	18,775,653
Total Pre-tax Income	109,422,388
Income Tax	(24,474,619)
Excess Revenues over Expenses (Net Income, Net Profit)	109,422,388

Income Statement Not for Profit

Income Statement of a Hypothetical Hospital	
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Warning....Bad Debt!

- What is Bad Debt?
  - Revenue which was expected to be collected for healthcare services provided but "guarantor or someone" did not pay.
- Financial Statement before 2010
  - Bad Debt is an Expense
- After 2011, FASB guidance
  - Bad Debt is a "revenue deduction"
- Cost Report Accounting ? 990s? Provision for Income Taxes? Discuss these concepts with Independent Auditors
- ACHE- BOG Exam?
- Consistency with Prior Year Reporting

EBIT, EBITDA & EBITDAR

- EBIT
  - Earnings (Income) before Interest & Taxes
- EBITDA
  - Earnings (Income) before Interest, Taxes, Depreciation & Amortization
- EBITDAR
  - Earnings (Income) before Interest, Taxes, Depreciation, Amortization & Rent

Statement of Cash Flows

- "Converts accrual to cash basis"
- Why?
  - **<u>Cash is king</u>**! ☺
- CFO: Cash Flow of Operations
- CFF: Cash Flow of Financing
  - getting & paying back debt
  - Getting cash from "investors" (Issuance of Shares)
  - Paying cash to "investors" (Share buy back/Dividends)
- CFI: Cash Flow of Investing
  - Capex- Capital expenditures – Investing into the long term assets
  - Gain from sale of Capital Assets

CFO: Direct & Indirect

- Direct Method – GAAP Approach
- Indirect Method (more common)

- Operating Income
- Add back Depreciation & Amortization
- Adjustments to Balance Sheet Items such as AR, inventories, AP, etc. (working capital adjustments)
- What happens to CFO when
  - Inventory increases?
  - AR increases?
  - AP increases?
  - You promise to pay someone next year for doing something this year?

Sample Statement of Cash Flows

Sample Statement of Cash Flows		
		Amount
Income from Operations		109,422,388
Add Back Depreciation & Amortization	+	41,272,917
10% of Net revenue is in AR. Collection of previous years		
AR is 75Million. Net Change in AR is	+	1,536,940
Net Change in AP is	+	345,026
Inventory increases by	-	432,587
CFO		152,144,684
Organization Paid back 2012 series Bonds	-	195,000,000
New Bonds were issued maturing in 2040	+	240,000,000
CFF		45,000,000
Organization Built a new hospital Building	-	100,000,000
CFI		(100,000,000)
Net Cash Flow		97,144,684
Cash (Beginning Balance)		115,035,987
Cash (Ending Balance)		212,180,671

Financial Statement Analysis

- Qualitative
  - Notes
  - Managerial interviews
  - Sector analysis
- Quantitative
  - Common Size
  - Trends over time
  - Ratio Analysis

Quantitative- Common Size

- **Divide by “common divisor”**
- Balance sheet % of Assets
- Income Statement
  - % of Revenue
  - or (sometimes) % of Expenses
- Allows detection of trend over time
- Allows comparison with other organizations of different size

Example Common Size- B/S Assets

	SRHS Common Size
	Normalized YTDJune2018
ASSETS	
Current Assets	
Cash and Cash Equivalent	1.3%
Short Term Investments	41.1%
Patients Accounts Receivable, Net	12.2%
Estimated Third Party Settlements	0.0%
Other Accounts and Notes Receivable	1.4%
Prepaid Expenses and Other Current Assets	1.9%
Total Current Assets	**57.9%**
Assets Limited As to Use	10.8%
Long Term Investments	0.0%
Investments in Subsidiaries	2.2%
Intercompany	0.0%
Property and Equipment, Net	27.4%
Cash Surrender Value of Insurance Policies	0.0%
Other	1.7%
Total Assets	**100.0%**

Example Common Size- I/S

	FY2013	FY2014	FY2015	FY2016	FY2017	Normalized 2018
Charity Care % of Gross Revenue	3.4%	3.6%	5.9%	5.4%	5.6%	4.9%
Bad debt % of Gross Revenue	2.3%	2.7%	3.2%	3.5%	4.8%	4.0%
Contractual Deduction % of Gross Revenue	63.1%	63.9%	62.0%	64.3%	66.4%	63.4%
Labor % of Operating Revenue	54.7%	52.0%	50.7%	53.5%	61.9%	57.8%
Supplies % Operating Revenue	38.2%	36.1%	37.2%	39.0%	48.3%	38.2%
Depreciation % of Operating Revenue	5.8%	5.9%	5.2%	5.2%	5.6%	4.5%
Interest % of Operating Revenue	1.0%	1.0%	1.0%	1.0%	1.2%	0.9%

Ratios

- **Liquidity Ratios**: Can an organization meet its short term obligations?
- **Debt Ratios aka Leverage Ratios**: Can the organization pay its debt? Can it survive?
- **Operating Ratios**: How effective is management in managing assets? How good is the asset utilization?
- **Profitability Ratios**: Is the organization profitable?

- ***BOG Exam: Know the types of ratios, definitions of ratios and how they are used***

Liquidity Ratios

- Current Ratio

  =Current Assets/Current Liabilities

- Quick Ratio or Acid Test Ratio

  =Monetary Current Assets/Current Liabilities (excludes inventory, prepaid items)

- Days Cash on Hand (Short Term)

  = (Cash + Short term investments)/((Expenses-Depreciation-Provisions for bad debt)/365)

- Days Cash on Hand (All Sources)

  = (Cash + Short term investments+ Long Term Investments or Board Designated Funds for Capex)/(Expenses-Depreciation-Provisions for bad debt)/365)

- Cash Collection Ratio

  =Cash collected during period/revenue for period

Leverage/Debt Ratios

- Debt to Assets aka Debt Ratio
  - Total Debt / Total Assets
- Equity Ratio
  - 1 – Debt Ratio
- Debt to Equity Ratio
  - Total Debt/ Total Equity
- Interest Coverage Ratio (aka Times interest earned)
  - EBIT/Interest Expense
- Debt Service Coverage Ratio
  - (Excess of Revenues over Expenses + Depreciation + Interest Expense)/(Principal + Interest payments)
- Cash Flow to Debt Ratio
  - Cash Flow to Debt=Cash Flow from Operations/ Total Debt

Operating Ratios

- Inventory Turnover Ratio =

  Cost of Goods Sold/Average Inventory during the period
- Age of Plant=

  Accumulated depreciation/Depreciation Expense
- Fixed Asset Turnover Ratio =

  Total Revenue/Average Net Fixed Assets during the period
- Total Asset Turnover Ratio =

  Total Revenues/Average Total Assets during the period
- Days in accounts receivable

  =Net accounts receivable/(Net patient revenue/365)

  =Net accounts receivable X 365/Net patient revenue

Profitability Ratios

- Total Margin
  - Net Income/Total Revenue
- Operating Margin
  - Operating Income/Operating Revenue
- EBITDA Margin
  - EBITDA/Operating Revenue
- Return on Assets
  - Net Income/Total Assets
- Return on Net Assets
  - Net Income/Total Net Assets

Healthcare Specific Ratios

- Medical claims expense ratio:
  - Total medical expenses/premium revenue
- Administrative Expense Ratio
  - Total administrative expense/operating revenue

Thank you
End of Part 1