

Budgeting Basics 101

The Nuts and Bolts of Budget Planning

October 2011

- Understanding Budget Basics
 - What is a Budget?
 - Budget Types: Six Categories
 - Budget Approaches
 - Case Study
- Components of Operating Budget in health care – key drivers of
 - Revenue
 - Expense
- Financial Performance

What is a Budget?

- a process for converting an *operational plan* into financial terms and outlining resources needed to achieve objectives
- a *managerial tool* driven by strategy, goals, and objectives

- A Financial Roadmap -

What is the purpose of budgeting?

- **To Plan**
 - preparing for the future
- **To Communicate**
 - operational expectations
- **To Allocate**
 - amongst competing demands within organization

As Part of an Analytic Toolkit

- **Performance Evaluation**
 - Versus budget
 - Versus prior month, quarter, year
 - Benchmark against other institutions
 - By service line, procedure, etc

- **Assess reasons why a difference exists**
 - Appreciation for the role volume plays on revenue and expenses
 - Market conditions – seasonality and volatility

- **Statistical Budget**
 - Specifies volume or workload assumptions
- **Revenue Budget**
 - combines volume data with charges and reimbursement data
- **Expense Budget**
 - costs of providing services. Often divided into labor and non-labor components

- **Operating Budget**
 - Combination of revenue and expense budgets. Often prepared using accrual accounting methods
- **Cash Budget**
 - Estimated future cash receipts and payments tabulated to show the forecasted cash balance
- **Capital Budget**
 - Significant purchase price; typically land, buildings & equipment with useful life >2 years (varies by institutional policy)

Budget Approaches

- **Historical**

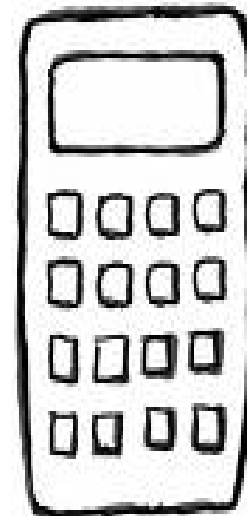
- Assumes historical data is updated with new facts and proposals
- Trends are incorporated into projections

- **Zero Based**

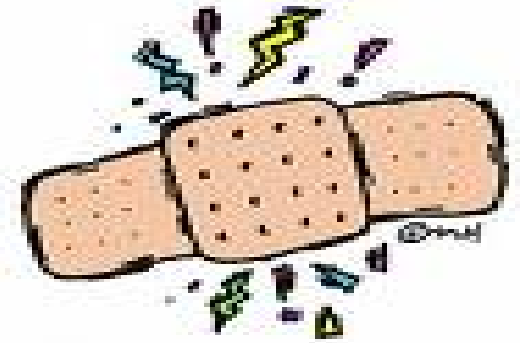
- Assumes all costs need to be justified
- No historical data

- **Flexible**

- Allows changes during the budget period, relative to volume/ activity



Case Study

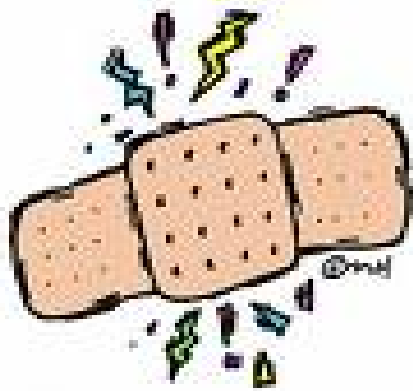


The *Flu Shot* department at *The Hospital* will soon enter flu season.

To prepare, the department is stocking up on band aids - regular and glow-in-the-dark. A regular band-aid is budgeted at \$1, while a glow-in-the-dark band aid is budgeted at \$2. The net revenue for a flu shot is \$20/patient.

During last year's flu season, the department saw 400 adults and 700 children. Children always request glow-in-the-dark band aids.

Case Study: Statistical Budget

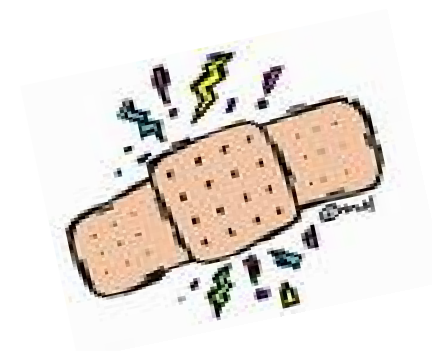


	Statistical Budget (volume)
Total Patients	
Adults	400
Children	700
Total Flu Shots	1,100

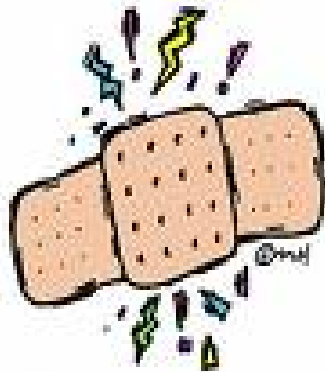
Case Study: Calculating Revenue Budget



	Statistical (volume)	Net Revenue Per Pt (\$)	Revenue (\$)
Adults	400	20	8,000
Children	700	20	14,000
Total	1,100	20	22,000



Case Study: Calculating Operating Budget



Revenue	
(\$20 * 400 Adults)	8,000
(\$20 * 700 Children)	14,000
Total Revenue	\$22,000
Expenses	
Regular Band Aid (\$1*400)	\$400
Glow-in-the-Dark (\$2*700)	\$1,400
Vaccine (\$10 * 1100 patients)	\$11,000
Total Expenses	\$12,800
Total Profit/Operating Gain	\$9,200

Case Study: Expense Variance

- **What if ...**
 - financial statements indicate that supply expenses are up
- **How to analyze the root cause of budget difference. . .**
 - Were more patients seen?
 - Has the service mix changed? (i.e., mix of adults and children)
 - Was there a new, more expensive product in the market? (i.e., technology/utilization shift)
 - Was the actual price per band aid higher than budgeted?
- **Is this a favorable or unfavorable business trend?**
 - Is the additional expense offset by additional revenue?

Case Study: Flexing Volume and Mix

What if The Hospital's flu season campaign brings forth additional patients?

- How does volume change affect budgeted revenue and expenses?
- How does change in patient mix affect the department's finances?



Case Study: Flexing Volume & Mix

	Budgeted Statistics (volume)	Actual Statistics (volume)
Adults	400	300
Children	700	1,000
Total Flu Shots	1,100	1,300

Case Study: Flexing Volume & Mix



Revenue	Actual	Budgeted	Variance
Fee For Service (\$20/Flu Shot)			
Volume:			
Adults	300	400	(100)
Children	1,000	700	300
Total Volume	1,300	1,100	200
Total Revenue	\$26,000	\$22,000	\$4,000
Expenses			
Regular (\$1)	\$300	\$400	(\$100)
Glow in the Dark (\$2)	\$2,000	\$1,400	\$600
Vaccine (\$10)	\$13,000	\$11,000	\$2,000
Total Expenses	\$15,300	\$12,800	\$2,500
Total Profit/Operating Gain	\$10,700	\$9,200	\$1,500

Case Study: Flexing Volume & Mix

- Is the department better off given growth of 200 patients?
 - Total operating gain increased (from \$9,200 to \$10,700)
 - But profit per patient decreased due to the service mix shift
 - $\$9,200 / \$1,100 \text{ patients} = \8.36 per patient
 - $\$10,700 / \$1,300 \text{ patients} = \8.23 per patient

- **Not used at most hospitals, but often used in many physician practices**
 - Transactions are recognized when cash is exchanged.
 - Advantages
 - Ability to show and compare how cash flows in and out of your business
 - Allows one to operate within the cash you have in hand
 - Disadvantages
 - Does not recognize revenues that are earned but not yet received (receivables)
 - Does not recognize liabilities owed to creditors (payables)
 - Does not recognize expenses as resources are used, but only when the money is paid out (expenditures)

Components of Operating Budget

- revenue & expense -

Revenue Discussion

- income received from business activity -

Typical Categories of Revenue in Healthcare



MASSACHUSETTS
GENERAL HOSPITAL

- **Patient Service Revenue**
 - Gross Patient Service Revenue (GPSR)
 - Net Patient Service Revenue (NPSR)
 - Payment Methodologies (Inpatient and Outpatient)
- **Other Revenue such as**
 - Cafeteria
 - Parking
 - Investment Income
- **Research/Grant Revenue**
 - Direct
 - Indirect

Patient Service Revenue

- **Gross Patient Service Revenue (GPSR)**
 - Charges for the provision of health care services to patients.
 - Includes both inpatient and/or outpatient revenue
 - “Sticker Price”

- **Net Patient Service Revenue (NPSR)**
 - The estimated net realizable amounts from patients, insurers, and others for services rendered
 - Includes contractual allowances (i.e., discounts) and estimated retroactive adjustments under reimbursement agreements with third-party payers.
 - “Final negotiated payment price”

Bad Debt & Charity Care

- Bad debt consists of services for which providers anticipated but did not receive payment
- In contrast, charity care consists of services for which providers neither received, nor expected to receive payment due to the patient's inability to pay
 - Charity Care is generally for people who do not have other financial resources available, such as insurance, government programs or regular income
 - Patients must meet certain State criteria in order to qualify. System is fundamentally changing under Health Care Reform in MA
- In health care, convention is to record charity care as a reduction to revenue and bad debt as an expense

Inpatient Payment Methodologies



- **Case Rates (DRGs – Diagnostic Related Groups)**
 - Medicare’s Prospective Payment System (PPS) which has been adopted by many other insurers
 - A classification of groups of hospital cases expected to use similar hospital resources. The groupings are based on diagnoses, procedures, age, sex, and the presence or absence of complications or co-morbidities
 - Reimbursement for DRGs is based on a predetermined, fixed payment amount. Each DRG has a payment weight assigned to it, based on the average resources used to treat Medicare patients in that DRG relative to the average resources used to treat cases in all DRGs.
 - Example: a patient is admitted to *The Hospital* to have a stent inserted. Insurance Company A pays \$10,000 for a stent procedure whether the patient stays 2 days or 4 days, regardless of types of medication, or how complicated the recovery was.

- **Per Diems**

- Hospitals paid by the per diem method receive payments based on the number of days a patient spends in the hospital. Some variation by type of care: med/surg, ICU
- While this payment methodology implies little incentive to manage length of stay, insurers use other means of reviewing and determining whether the days were appropriate and payable
- Example: a patient is admitted to *The Hospital* to have a stent inserted. Insurance Company B pays \$2,500/day. If the patient stays 2 days, the company pays \$5,000. If patient stays 4 days, the company pays \$10,000.

• **Percent of Charges**

- The hospital is paid on the basis of total charges, most often some negotiated percentage of total charges, e.g. 80%.
- Payment methodology implies few inherent incentive for managing length of stay or utilization
- Example: a patient is admitted to *The Hospital*. Insurance Company C pays 80% of gross charges. All charges for this patient will be totaled, including room and board rate for however many nights the patient was in the hospital, charge of the stent, any medications, anesthesia, etc., and the company will pay 80% of that total.

- **Pay for Performance**

- An emerging movement in health insurance
- Providers under this arrangement are rewarded for meeting pre-established targets for delivery of healthcare services
- A payment model which rewards physicians, hospitals, medical groups, and other healthcare providers for meeting certain performance measures for quality and efficiency
- With some new contracts, a percentage of expected revenue is held back (called a withhold) and put at risk.
- The provider receives this money only if/when able to demonstrate measurable progress in
 - Efficiency and Utilization (i.e. patient days/1,000)
 - Quality and Safety (i.e. Electronic Medical Records)
 - Outcome Performance (i.e., disease management)

Outpatient Revenue

- Outpatient activity represents a growing percent of total patient revenue in most hospitals, especially as previously inpatient become outpatient procedures
- The majority of revenue received by most hospitals is for outpatient activity, specifically ancillary utilization
 - ✓ i.e. radiology, labs, infusions, etc.
 - ✓ Some outpatient ancillaries relate to both hospital-based visits, aligned physicians, and outside referrals
- Outpatient is characterized by high volume, low revenue per unit and can be more challenging to estimate and analyze revenue than inpatient

- **Outpatient Prospective Payment Systems (OPPS):**
Services paid to hospitals under OPSS are classified into groups called Ambulatory Payment Classifications or APCs.
 - Services in each APC are similar clinically and in terms of the resources they require.
 - Payment rates for each APC are established prior to service
 - Similar to DRGs for inpatients
 - Depending on the services provided, hospitals may be paid for more than one APC for an encounter

- **Fee Schedule**

- A list of services (usually at the CPT- 4 code level) with corresponding reimbursement amounts that a provider will receive from a payor for providing those services.
- All fee schedules are payor-specific, and services include laboratory, radiology, ER, clinic, and ambulatory categories.
- Fee schedules include both a technical and professional component.
 - Technical fee schedule is used for hospital services.
 - A professional fee schedule is used for physicians providing a service in an office setting or hospital staff physicians providing the same service in a hospital outpatient setting.
- Items not listed on the fee schedule typically default to percent-of-charges payment method.

Patient Care Revenue Budgeting

- Key steps in developing a revenue budget
 - Estimate volume by service type
 - Determine gross charges (volumes x “sticker prices”)
 - Translate gross revenue into net revenue using either a top down or bottoms up approach
 - Top down – use historic average collection rate (net revenue as percent of gross). Works reasonably well if payor mix and service mix is relatively constant from period to period
 - Bottoms up – Large modeling effort to flex net payment rates by payor and service mix

Research Revenue

- Direct research (such as lab-tech salaries and the cost of reagents) are directly related to the cost of research being performed.
 - It should always equal direct research revenue
- Indirect expenses are overhead expenses (such as rent and utilities) that are not explicitly expensed to research projects but rather incurred by the sponsoring institution
 - Overhead expenses cannot be readily identified from the various expense categories so allocation methodologies are used to approximate overhead use by research
- Indirect Revenue - overhead rates paid by sponsors to reimburse the institution for indirect costs spent on research
 - Typically expressed as a percentage of payment for every dollar of direct expense
 - For example, the NIH negotiated indirect cost rate for a hospital may reimburse 65% for every direct dollar

Expense Discussion

- cost associated with the provision of services -

Type of Expenses: Salary & Benefits



- **Salary**

- Consists of accounts used to pay employees.
- Costs associated with hours worked at regular pay as well as premium rates (overtime shifts, shift differentials) and vacation time

- **Benefits**


- At the organizational level is actual expense for benefit programs such as health insurance, pension plans, life insurance, etc
- Often times, expenses are allocated to departments/practices based on salaries to assign an appropriate amount of expense. Known as fringe benefit allocation (%)

Type of Expense: Non-Salary

- Hospital operations and patient care generate other expenses.
 - Supplies -- Includes Med/Surg Supplies, Pharmaceuticals, Implants and other Materials
 - Utilities -- Electricity, Steam, Gas, Oil, Telephone
 - Other - Services purchased from vendors outside of the Hospital, including Rentals and Leases, Travel, Consulting, etc.
 - Corporate Allocations -- Costs related to Partners services including Finance, HR, Legal and Bulfinch
 - Amortization & Depreciation --Valuing the diminishing value of assets and capital over time
 - Provision for Bad Debt -- Based on a percentage of GPSR for people who are unlikely to pay their bills
 - Interest - for long-term debt

Types of Cost and Cost Behavior

	Direct	Indirect
Variable	<p>A Cost Center cost that varies relative to Cost Center Activity.</p> <p><i>Example: Catheters used per patient. Costs increase as patient volume increases.</i></p>	<p>An overhead expense that varies based on some measure of activity.</p> <p><i>Example: Nutritional Services expenses increase relative to number of patient days.</i></p>
Fixed	<p>A Cost Center Cost that does not vary regardless of activity.</p> <p><i>Example: Nurse Manager Cost does not increase regardless of volume.</i></p>	<p>An overhead expense that does not vary regardless of activity.</p> <p><i>Example: Finance Department Cost do not increase regardless of volume.</i></p>

 Actual GL costs associated with cost center based on payroll, accruals and expenditures.


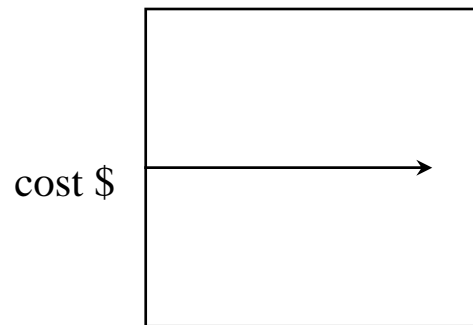
 Allocated to cost centers based on standard factor such as square footage, % of total expenses, historical usage.

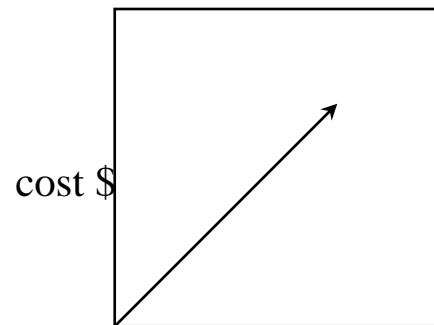
Illustration of Cost and Cost Behavior



volume
Fixed Cost

Examples:

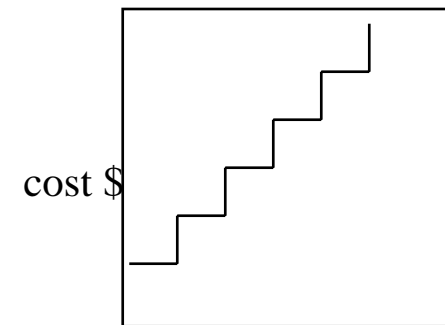
- *Administrative Staff*
- *Service contracts*



volume
Variable Cost

Examples:

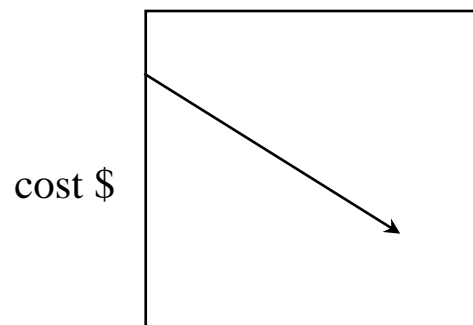
- *Patient Care Supplies*



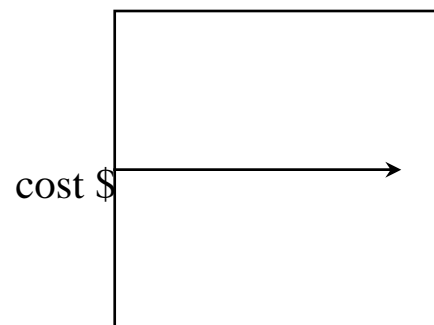
volume
Semi-Variable Cost

Examples:

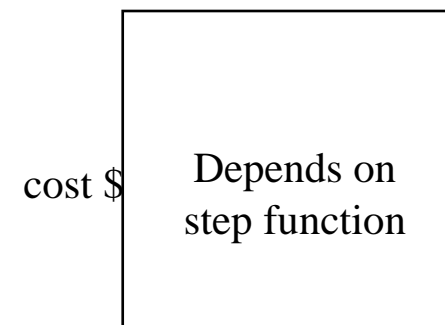
- *Nursing Care*
- *Unit Secretaries*



volume
Fixed Cost
per Unit



volume
Variable Cost
per Unit



volume
Semi-Variable Cost
per Unit

Case Study: Expense Types

Direct Costs (associated with providing service)

- RN -- fixed
- MD Salary -- fixed or variable depending on compensation plans
- Band Aids -- Variable



Indirect Costs (overhead; not directly associated with providing direct service)

- Office Manager -- fixed
- Rent and Utilities -- fixed

$$\text{Full Cost Per Unit} = \frac{\text{DC} + \text{IC}}{\text{Volume}}$$

- More volume allows a department to spread the fixed cost (RN, rent) and lower the effective cost per unit. Generally a positive trend until you hit a step function and need to expand space or add another FTE.

Financial Performance

- monitor and evaluate -

Financial Performance

- **How do I know if the organization is performing well?**
 - Total Revenue - Total Expenses = **Operating Gain**
 - The higher the operating gain, the better the organization is performing
 - Best measure of financial performance is often the Operating Margin

Operating Gain

Revenue

=



Operating

Margin %


Financial Performance: The Flu Department **P&L**



Revenue (Price * Volume)	Actual	Budget	Variance
Fee For Service (\$20/Flu Shot)			
Total Volume	1,300	1,100	200
Total Revenue	\$26,000	\$22,000	\$4,000
Expenses (Sum of All Cost)			
Supplies:			
Band Aids	\$1,600	\$1,800	(\$200)
Vaccines	\$13,000	\$11,000	\$2,000
Salaries:			
MD	\$2,000	\$2,000	\$0
RN	\$1,500	\$1,500	\$0
Fringe (29% of Salary)	\$1,015	\$1,015	0
Facilities:			
Rent	\$4,000	\$4,000	\$0
Total Expenses	\$23,115	\$21,315	\$1,800
Total Profit/Operating Gain	\$2,885	\$685	\$2,200

Performance Evaluation

- Why is the Operating Margin needed for non-profits?
 - For capital: Equipment and Buildings
 - For investment in new programs and services

Operating Gain	\$2,885
Total Operating Revenue	\$26,000
Operating Margin	11% 

Performance Improvement

- Increase revenues

- In the short run, it is challenging to increase volume and revenue
- Volume not fully within control of providers – marketing is a tool to impact certain types of health care demand
- Most insurance contracts are negotiated for a fixed period of time and cannot be changed mid-stream; no ability to negotiate with government payors

- Decrease expenses

- More likely to focus on expense reduction in the short run
- Cost reduction, (i.e. variables that affect costs, including the number of hired FTEs, supply costs, etc)

- Generally, in the long run, most institutions attempt to do both

Iron triangle of Budget Management

“To meet new margin imperative, providers must both increase revenues and decrease costs faster than historic rates”

* Source: Moody’s Investors Services, 2006 Advisory Board analysis

