One of the primary characteristics of a successful budgeting process is preparation. By the nature of nursing, we’re reactionary—addressing daily challenges while denying that the budget requires attention. As nurse leaders, we’re masters at budgeting our lives—including home expenses, time management, and department function—but we fall short regarding financial jargon. As a result, we allow our facility’s finance department to drive the budget process, while we’re the ones with the most insight regarding our units and patient care needs.

Priority indicators
The high-priority indicators for developing medical-surgical unit budgets are patient days or average daily census (ADC), length of stay (LOS), case mix index (CMI), and patient acuity. Your facility’s finance staff will most likely provide LOS and CMI based on the previous year’s history, but you need to provide ADC and patient acuity. Base ADC on the previous year’s history or account for a change that’ll happen this year on the unit, such as additional beds becoming available throughout the medical center, thus lowering your ADC by several beds. Be certain that finance division personnel are in agreement with your budgeted

Abstract: To best prepare for developing budgets, know your volume base. Realize who and where your competition is and plan accordingly. [Nurs Manage 2005;36(8):28-34]
**Budget buzzwords**

You should be able to speak finance with ease to establish credibility with finance department personnel and administrators. Become familiar with the following key terms as you begin your budget process.

**Accounts payable**
Debt owed to vendors usually in connection with purchased supplies. The amount in accounts payable is usually owed within 60 days of use. Example: Money owed in connection with purchase of gauze, implants, and agency nurses.

**Accrual**
A method to record an expense in the period in which it was used. Example: Agency nurse time incurred in December, but the bill wasn’t received until January. An accrual would record the expense in December when the agency nurse worked.

**Average daily census (ADC)**
Average daily census is the average of patient days experienced by the hospital or specific department for a period of time. Example: Department East experienced 5 patients on Monday, 6 on Tuesday, and 7 on Thursday. The ADC for the 3 days was 6 \((5+6+7, \text{divided by 3 days})\).

**Asset**
Items that can and will be used for a period longer than a year. (Also see depreciation.) Example: MRI, patient beds, desks, computers.

**Bad debt**
An expense recorded to write off an account for which you expected payment. Example: The hospital has charged a patient $100 for a procedure that should be paid because the patient has insurance to cover the charge. However, for some reason, the hospital won’t receive payment for it, and the amount is expensed as bad debt.

**Depreciation**
A method of expensing an asset over a number of years. (Also see asset.) Example: If a patient bed costs $900, and you think that it will last for 3 years, the hospital may charge a department the $900, however, you’ll expense it as depreciation for $300 per year for 3 years ($900 total cost, divided by the 3 years that it’s used).

**Expense**
The cost recorded in connection with using a one-time item. Example: Gauze, syringe, saline solution, blood products, implants.

**Full-time equivalent (FTE)**
Full-time equivalent is a standard measure of worked hours equal to 40 per week or 2,080 per year. Rather than examine the number of persons working, it measures the total hours worked. Example: 1 person working 40 hours in a week equals 1 FTE; 2 persons of the same job category/position working (first person 10 hours and the second working 30 hours in a week) equals 1 FTE, since employees one and two equal 40 hours.

**Income**
The number of care hours you provide during a 24-hour day.

**Inventory**
Items purchased in bulk, usually held for future use. Since the amounts will be used in the future, said amounts aren’t expensed when purchased, rather when used (very similar to prepaid expense). Example: Purchasing several thousand I.V. tubes and storing them in central storage. When they’re delivered to your department, they’re expensed to your department.

**Net patient service revenue (NPSR)**
This equals gross revenue or gross charges, less the amounts that you expect not to get paid due to managed care contracts, Medicare and Medicaid rates, and charity care. Example: The hospital could charge $100 for a procedure; however, a signed managed care contract will only pay the hospital $30. Thus, $30 equals the NPSR. The hospital doesn’t get paid the remainder ($70).

**Patient day**
A measurement of the number of inpatients in the hospital or in a specific department at a point in time (usually assessed at midnight). Example: Department West has 5 patients at midnight, therefore, 5 patients that day.

**Prepaid expense**
A method to record an expense over a designated period of time if a bulk purchase is made. Example: The OR purchases 50 pacemakers in January, but customarily uses 10 per month. The 50 pacemakers won’t be expensed in one month; however, the unused portion will be recorded as a prepaid expense and charged to your department when used in the following month. The 40 unused pacemakers are recorded as a prepaid expense.

**Gross revenue**
Gross revenue or gross charges equal the total of all amounts charged for services provided by the hospital, regardless of what the hospital expects to be paid. Example: The hospital charges $100 for a specific procedure.

ADC, as they’re assigning the ADC/patient days throughout your organization.

Patient acuity, whether established using a home-grown tool or well-recognized vendor software, is the final indicator necessary for budget completion. Similar medical-surgical units within your organization should brainstorm and complete their budgets as a group. If possible, invite your chief nurse officer and/or finance manager to these sessions so questions can be answered before your budgets are actually submitted.

Developing a budget for ambulatory or procedure-based units such as perioperative, diagnostic, and interventional cardiology; emergency department; breast center; and women’s and children’s services remains heavily dependent on the specific cases, procedures, and births. To best prepare for developing these budgets, know your volume base. Realize who and where your competition is and plan accordingly.

Confidently question physicians about what their intentions are for the following year. Ask them how you can provide better service to ensure you’re maintaining or growing your volume. Note that these areas are particularly vulnerable due to choice. Physicians will certainly have preferences in bringing or referring their patients to your unit. Patients have preferences, as well, and become better informed each year due to resources such as the Joint Commission on Accreditation of Healthcare Organizations, Centers for Medicare
and Medicaid Services (CMS), and HealthGrades. Consumers simply research these agencies via the Internet to see how well their providers practice and how your overall facility stands up to other hospitals nationwide.

Salary considerations
To begin developing a salary budget, you may use the previous year’s salary expense as a guide, but you’ll need to take several additional areas into consideration. Wage increases or market adjustments can cause your otherwise thought-out budget to have negative variance right from the start. Consult with human resources to adjust for proposed increases in wages for the upcoming year.

Orientation will also increase your salary dollars. Tackle this by standardizing or allocating all orientation dollars to one cost center or unit for your entire hospital.

Areas of specialization such as critical care or the operating room need additional orientation hours and dollars. The leaders of these types of units need to have the RN complete the orientation in the time frame allocated, which requires timely interaction between you and the orientee over several months. These care areas are vulnerable to extreme salary variances by the nature of the work. Nurse leaders can build credibility among human resources and the finance department by executing orientation plans in a timely fashion.

A factor that drives your salary expense is the cost of the model of care, which varies nationwide. Nurse-to-patient ratio and use of unlicensed personnel are primary factors. Reducing salary expenses is a primary focus, and the nurse leader needs to think creatively for job-class development.

Communicating best practices and trends are vital in the development of the model of care. When discussing budget preparation with the chief nurse officer, ask: Will our model of care change next year? How do we best utilize the RN, LPN, and PCA? Can we expand the role of the CNS/NP? Can we further develop our endoscopy assistants or ORT/MSTs?

Nurse leaders are challenged daily to be as cost-effective as possible. This is evident with the development of complex nonsalary budgets. As you prepare both your salary and nonsalary expense budgets, ask yourself the five questions on the hierarchy of economic evaluations pyramid. (See sidebar.) As you’re questioning yourself, keep in mind that the patient is decision making, as well, and evaluating the efficacy, cost-effectiveness, cost-utility, and cost-benefit.1 (See “When is cost-effectiveness analysis appropriate?” and “Cost-effectiveness ratio: Basic model.”

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**Hierarchy of economic evaluations**

Patient
Cost-Benefit
Cost-Utility
Cost-Effectiveness
Efficacy

Nurse leader
Is it worth it and can we afford it?
Is it the best way?
Will it work?
Can it work?

Increasing complexity and value

**When is cost-effectiveness analysis appropriate?**

- The desirability of achieving the medical outcome—“effect”—isn’t an issue, but the choice of which intervention to use is.

Examples:
- Hormone replacement therapy versus raloxifene for osteoporosis
- Zocor versus Lipitor for lipid reduction
- Radiation oncology versus surgical intervention for prostate cancer

Additional considerations: cost, effectiveness, and calculation of ratio of cost to effectiveness

**Cost-effectiveness ratio: Basic model**

<table>
<thead>
<tr>
<th>Cheaper</th>
<th>More Cost-Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheaper</td>
<td>More Cost-Effective</td>
</tr>
</tbody>
</table>

Cost

Effect

Cost  +  Effectiveness

| 1.0 | 1.33 |

*These examples view patient outcome in relation to the price of services. You’ll need to consider the quality of the service and balance this with the effectiveness of the outcome.
1. Define objectives/key outcomes areas
   ♦ Perform diagnostic catheterizations and interventions.
   ♦ Enhance care quality and throughput.
   ♦ Control supply cost per patient.
   ♦ Improve patient and staff satisfaction.

2. Identify operating budget
   Manager $70,000
   Staff salaries $400,000
   Education $10,000
   Supplies $1,520,000
   Total: $2,000,000

3. Assign operating budget costs to outcomes areas

<table>
<thead>
<tr>
<th>Expense item</th>
<th>Manager</th>
<th>Staff</th>
<th>Education</th>
<th>Supplies</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic catheterizations</td>
<td>$7,000</td>
<td>$160,000</td>
<td>$2,000</td>
<td>$608,000</td>
<td>$777,000</td>
<td>38.9</td>
</tr>
<tr>
<td>Interventions</td>
<td>$7,000</td>
<td>$120,000</td>
<td>$3,000</td>
<td>$760,000</td>
<td>$890,000</td>
<td>44.5</td>
</tr>
<tr>
<td>Improve quality</td>
<td>$14,000</td>
<td>$40,000</td>
<td>$5,000</td>
<td>$0</td>
<td>$59,000</td>
<td>3.0</td>
</tr>
<tr>
<td>Improve throughput</td>
<td>$14,000</td>
<td>$20,000</td>
<td>$0</td>
<td>$30,400</td>
<td>$64,400</td>
<td>3.2</td>
</tr>
<tr>
<td>Control supply cost</td>
<td>$14,000</td>
<td>$20,000</td>
<td>$0</td>
<td>$0</td>
<td>$34,000</td>
<td>1.7</td>
</tr>
<tr>
<td>Improve patient satisfaction</td>
<td>$3,500</td>
<td>$20,000</td>
<td>$0</td>
<td>$30,400</td>
<td>$53,900</td>
<td>2.7</td>
</tr>
<tr>
<td>Improve physician satisfaction</td>
<td>$7,000</td>
<td>$20,000</td>
<td>$0</td>
<td>$76,000</td>
<td>$103,000</td>
<td>5.2</td>
</tr>
<tr>
<td>Improve staff satisfaction</td>
<td>$3,500</td>
<td>$0</td>
<td>$0</td>
<td>$15,200</td>
<td>$18,700</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>$70,000</td>
<td>$400,000</td>
<td>$10,000</td>
<td>$1,520,000</td>
<td>$2,000,000</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4. Develop outcomes budget

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>Output measure</th>
<th>Budgeted output</th>
<th>Total cost</th>
<th>Average cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform diagnostic catheterization</td>
<td>Conduct diagnostic catheterization</td>
<td>Number of caths</td>
<td>1,200</td>
<td>$890,000</td>
</tr>
<tr>
<td>Improve quality</td>
<td>Change specific procedures</td>
<td>Number of complications</td>
<td>10% reduction in complication rate</td>
<td>$59,000</td>
</tr>
<tr>
<td>Improve throughput</td>
<td>Develop new coordination procedures with OR and MDs</td>
<td>Turnaround time</td>
<td>5% reduction in turnaround time</td>
<td>$64,400</td>
</tr>
<tr>
<td>Control supply cost/patient</td>
<td>Work on vendor contracts; work with clinical staff</td>
<td>Supply dollars per patient</td>
<td>Constrain increase to 3% vs. expected industry 6% increase</td>
<td>$34,000</td>
</tr>
<tr>
<td>Improve patient satisfaction</td>
<td>Improve staff communication with patients</td>
<td>Number of complaints</td>
<td>Reduce number from 60 to 40</td>
<td>$53,900 complaint</td>
</tr>
<tr>
<td>Improve physician satisfaction</td>
<td>Redesign work scheduling to meet MD demands</td>
<td>Cases / MD</td>
<td>2% increase per MD</td>
<td>$103,000</td>
</tr>
<tr>
<td>Improve staff satisfaction</td>
<td>Allow longer breaks and free coffee/donuts</td>
<td>Turnover rate</td>
<td>Reduce turnover by 50% from 4/year to 2/year</td>
<td>$18,700</td>
</tr>
</tbody>
</table>

5. Conduct cost/benefit analysis
   ♦ Are the budgeted performance areas worth the effort?
   ♦ Assume that a 5% reduction in turnaround time would allow the lab to do 400 extra procedures per year with an additional profit of $500 per procedure.
   ♦ Should we spend $64,000 to reduce the turnaround time?
     Assume: 400 extra cases
     \[ \text{Benefit/Cost} = \frac{400 \times 500}{200,000} = \frac{200,000}{64,400} \]
     \[ = \$3.11 \text{ savings per dollar spent} \]
model.”) Because patients can choose their institution, their concerns become our concerns and must be addressed prior to admission for both elective and emergent needs.

**Resource collaboration**

Utilizing in-house resources such as materials management and pharmacy, two key departments that directly impact nonsalary expenses, will help in creating accurate nonsalary budgets. Medical surgical units need to consider new technology or enhancements such as wound vacs, therapy beds, sequential compression devices, and pleurevacs. Being familiar with new technology will enable you to proactively plan for potential increases in the nonsalary expense budget.

The specialty of your unit is also a factor in planning for an increase or decrease in these expenses. For instance, orthopedics and/or surgical units use additional dressings, chest tubes, ostomy supplies, immobilizers, and mobility devices such as crutches and walkers, which need to be budgeted appropriately.

Historically, units such as the operating room have very large nonsalary expense budgets. This is due to the cost of implantable devices such as pacemakers, total knee and hip joints, tissue expanders, breast implants, and endomechanical devices. These budgets are very specialized and need considerable planning. The same philosophy is true for catheterization labs and endovascular and interventional radiology suites.

Departments solely dependent on products need additional support and resources from materials management for preparation. A strong relationship between the nurse leader, physician, and materials management will apply pressure to the vendor in providing you the best cost available for the product. The art of negotiation and vendor relationships are weighed heavily within surgical services. These nurse leaders need to leverage the physician to work together in actualizing the best cost per case. An increase in volume or case projections often negate requesting additional nonsalary expense dollars without merit.

**Eyeing outcomes**

Consider developing a budget that’s outcome based. There are several incentives to utilizing this method: additional volume and/or admissions, clearer expectations of goals and objectives, and insight regarding self-evaluation and performance appraisal. (See sidebar for an example of a cardiac catheterization lab using an outcome-based budget.)

Preparation continues to be the most important aspect of a successful budget process. Understanding and executing your plan will help you build credibility for nursing among key administrative, financial, and human resources personnel within your organization. Financial confidence, in turn, will help you master the language of finance and its many nuances.

REFERENCES

2. Steven Finkler, CPA, PhD. Robert F. Wagner Graduate School of Public Service, New York University, Johnson & Johnson—Wharton Fellows, June 2002.

ABOUT THE AUTHOR

Regina Foley is a chief nurse executive at Meridian Health System, Neptune, N.J.
Learn to speak finance

GENERAL PURPOSE: To familiarize the registered professional nurse with financial terms and strategies to prepare a successful budget.

LEARNING OBJECTIVES: After reading the preceding article and taking the following test, you’ll be able to: 1. Describe key financial terms related to preparing a successful budget. 2. Define financial terms used to describe various aspects of a budget.

1. Which of the following is the most knowledgeable about patient care needs?
   a. director of nursing
   b. finance department staff
   c. insurance company
   d. unit manager

2. Which of the following situations is most likely to increase a unit’s average daily census?
   a. opening another unit in the facility
   b. expansion of the emergency department by 50%
   c. merging with a neighboring facility
   d. closure of 30% of the operating rooms for renovation

3. Which of the following people would be most helpful in a budget planning meeting?
   a. physicians and managers from competing facilities
   b. managers from similar units in the facility and the chief nurse officer
   c. representatives from Centers for Medicare and Medicaid Services and the financial manager
   d. representatives from the Joint Commission on Accreditation of Healthcare Organizations and the materials management manager

4. Which of the following would have a favorable outcome on a unit’s salary budget?
   a. changing an RN position to two nurse assistant positions
   b. wage increases following favorable performance evaluations
   c. market adjustments for rising cost of living
   d. orientation of six newly graduated RNs

5. Which of the following is the most responsible and efficient way to spend orientation dollars?
   a. orientation of six newly graduated RNs
   b. Allocate 4 weeks of orientation for all new hires.
   c. Divide orientation hours among all units equally.
   d. Meet weekly with all orientees to ensure orientation time frames are met.

6. Which model change does the article suggest will most likely benefit both salary budget and patient care?
   a. Diversify the operating room technician role.
   b. Hire an all-registered nurse staff.
   c. Eliminate advanced practice nurses.
   d. Decrease the number of licensed practical nurses.

7. Which of the following is most important when evaluating economic value?
   a. cost-benefit
   b. cost-effectiveness
   c. cost-utility
   d. efficacy

8. Which of the following department managers are likely to be most helpful in the development of a nonsalary budget for a medical-surgical unit?
   a. finance
   b. materials management
   c. pharmacy, finance department
   d. representatives from the Joint Commission on Accreditation of Healthcare Organizations and the materials management manager

9. Which of the following departments is most likely to have the largest nonsalary budget?
   a. human resources, materials management
   b. materials management, pharmacy
   c. finance department, human resources
   d. pharmacy, finance department

10. The relationship between the unit manager, materials management, and the vendor
    a. won’t impact a cardiac catheterization laboratory budget.
    b. will directly impact the salary budget.
    c. is only important to surgical services.
    d. will affect the cost per product.

11. An outcome-based budget usually
    a. decreases the number of procedures.
    b. makes targets nebulous.
    c. aids in assessing performance.
    d. does little to aid in self-evaluation.

12. Money owed to a vendor for the purchase of pacemakers is termed
    a. bad debt.
    b. accounts payable.
    c. accrual.
    d. gross charges.

13. Accounting for an expense for the time when it was actually used is termed a/an
    a. accrual.
    b. asset.
    c. inventory.
    d. prepaid expense.

14. Which of the following is an example of an asset?
    a. hygiene products
    b. journal subscription
    c. implantable defibrillator
    d. portable x-ray machine

15. Which of the following items can be expensed as depreciation?
    a. pressure-relief bed
    b. intravenous solution
    c. wound and skin care products
    d. blood-draw supplies

16. An example of an expense would be a/an
    a. ventilator.
    b. dialysis machine.
    c. artificial heart.
    d. infusion pump.

17. A full-time equivalent could be
    a. a nurse working 30 hours per week.
    b. two nurse’s aides, each working 20 hours per week.
    c. nurse and a nurse’s aide, each working 20 hours per week.
    d. a nurse’s aide working 1,040 hours per year.

18. Which aspect of a budget does health insurance most affect?
    a. expenses
    b. prepaid expenses
    c. gross revenue
    d. net patient service revenue

ENROLLMENT FORM: Nursing Management, August 2005,
Learn to speak finance

A. Registration Information:
   Last name ________________________________ First name ________________________________ MI ______
   Address __________________________________________________________
   City _____________________________________ State _________________ ZIP ______________
   Telephone ______________________ Fax _________________ E-mail _______________________

B. Test Answers: Darken one circle for your answer to each question.

   a  b  c  d  a  b  c  d  a  b  c  d  a  b  c  d  a  b  c  d
   1.  ✓  □  □  □  5.  □  □  □  □  9.  □  □  □  □  13.  □  □  □  □  17.  □  □  □  □
   2.  □  □  □  ✓  6.  □  □  □  □  10. □  □  □  □  14. □  □  □  □  18. □  □  □  □
   3.  □  □  □  ✓  7.  □  □  □  □  11. □  □  □  □  15. □  □  □  □  
   4.  □  □  □  ✓  8.  □  □  □  □  12. □  □  □  □  16. □  □  □  □

C. Course Evaluation*
   1. Did this CE activity’s learning objectives relate to its general purpose?  ❑ Yes  ❑ No
   2. Was the journal home study format an effective way to present the material?  ❑ Yes  ❑ No
   3. Was the content relevant to your nursing practice?  ❑ Yes  ❑ No
   4. How long did it take you to complete this CE activity?  __________ hours  __________ minutes
   5. Suggestion for future topics __________________________________________________________________________

D. Two Easy Ways to Pay:
   ❑ Check or money order enclosed (Payable to Lippincott Williams & Wilkins)
   ❑ Check or money order enclosed (Payable to Lippincott Williams & Wilkins)
   ❑ Charge my  □ MasterCard □ Visa □ American Express

   Card # ________________________________ Exp. date ________________________________
   Signature ________________________________

*In accordance with the Iowa Board of Nursing administrative rules governing grievances, a copy of your evaluation of the CE offering may be submitted directly to the Iowa Board of Nursing.
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