

CHAPTER 4

BUDGET PLANNING

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LEARNING OBJECTIVES

1. Explain how budgets serve as plans.
2. Justify the nurse's role in budget planning for nursing care settings.
3. Provide at least two examples of applications of budget forecasting for budget planning in nursing care settings.
4. List at least two steps in estimating staff nurse costs for an inpatient or an outpatient healthcare setting.

KEY TERMS

accountability	objectives
annualizing	prospective forecasting
annual spend down	qualitative
budget cycle	quantitative
full-time equivalent (FTE)	retrospective forecasting
goals	skill mix
group purchasing organization (GPO)	strategic planning
incremental budgeting	what-if scenario
influence	zero-based budgeting (ZBB)

INTRODUCTION

Budgets are plans, and planning is an important activity in budgeting. The budget management techniques that will be discussed in Chapter 5, "Reporting and Managing Budgets," will help the nurse to understand how well the plan established by the budget is followed. This chapter presents methods for incorporating plans for the future into the operating budget over the next fiscal year. Budget planning anticipates changes that will affect financial performance from year to year. Budget planning involves

making predictions for next year’s volume, revenue, and expenses. Budget planning is also a way to introduce and reinforce budget control by setting financial performance targets that require reporting and efficient management.

The focus of this chapter is planning the operating budget, which is used in the day-to-day management of healthcare settings. The operating budget typically projects financial performance over the short term, time periods of a year or less. Examples for planning the operating budget include scenarios based on Millway University Nurse-Managed Health Center (MNC) and the East Wing medical-surgical inpatient unit at Bigtown Hospital. Budget preparation is important for other types of budgets as well, such as for launching a new program or service. Chapter 6, “Special Purpose, Capital, and Other Budgets,” discusses budget preparation for special projects and other types of budgets.

BUDGET PLANNING AND THE NURSE’S ROLE

Nurses assume various roles related to budget planning and management. One important role is **influence**, or the extent of the impact the nurse’s input exerts on the budget. Another important role is **accountability**, or the extent of responsibility the nurse is given to manage the budget. **Table 4.1** shows how these roles in budgeting are related and how they vary.

Nurses who have high influence and high accountability for their budgets are typically in positions of top leadership in the organization. Chief nursing officers, department or agency directors, or nurses who run their own businesses are examples. Persons with high influence over the healthcare budget, but low direct accountability include nonclinical and non-nursing leaders such as the CFO and other top administrators. These administrators often make budget decisions that nurses and nurse managers must implement. It is important for nursing to have a strong voice and input into budgets and planning.

Over the years, the nurse leader’s role has changed related to budgets and overall accountability for their unit or area they manage. In some settings, nurse managers have relatively high influence on their budgets, with the authority to make budget requests and changes based on the changing needs of their nursing units. In other settings, nurse managers have limited influence on the budget but have high accountability for keeping the nursing unit or outpatient center within budget.

Staff nurses usually have little influence on budgets in their work settings; however, the Joint Commission requires staff to be part of the budgeting process to provide input. ANCC Magnet-designated hospitals, where nurses are more empowered to collaborate with administration (American Nurses Credentialing Center, 2022) also include staff nurses to collaborate and provide input into the budget. Bedside nurses may believe they also have little budget accountability, and it is up to the nurse manager/nurse leader to include staff in budget conversations and planning. However, the National Academy of Medicine (NAM; formally known as the Institute of Medicine) and other policy makers increasingly realize that nurses are essential in delivering high-quality cost-effective healthcare (NAM, 2023). It is important for all nurses to understand their impact on healthcare costs and how

TABLE 4.1

Roles in Healthcare Budget Influence and Accountability

Influence	Accountability	
	High	Low
High	High influence and high accountability	High influence and low accountability
Low	Low influence and high accountability	Low influence and low accountability

to manage expenses. Learning about budgeting and budget planning is a first step toward increasing the nurse's accountability for the budget. Accountability for the work-setting's budget is important in expanding the nurse's role and influence in budgeting decisions.

STRATEGIC PLANNING AND BUDGET LINKAGE

Operating budgets establish financial plans for nursing microsystems such as inpatient nursing units and outpatient health centers. Operating budget preparation is also related to the institution's **strategic planning** process that determines organizational goals for the future. Strategic planning often extends over the long term, or more than 1 fiscal year. Strategic plans are based on assumptions and priorities. For example, strategic planning at Bigtown Hospital may lead to the assumption that more and more aging baby boomers may need subacute care, with the priority of adding skilled nursing units to the hospital's services.

The operating budget helps a nurse or nurse manager establish and evaluate performance over the short term that may impact on long-term institutional **goals** (overall planned outcomes). The operating budget reflects the institution's priorities for day-to-day resource use in moving toward its overall goals. These day-to-day priorities are often called **objectives**—specified activities that lead toward achieving a goal.

For example, a nurse-managed health center may develop a goal based on strategic planning to expand from three to five NPs over the next 2 years. As this goal is achieved, the operating budget reflects the increase in staff, patient encounters, revenue, and expenses associated with the health center's planned growth. Strategic planning may lead a hospital to set a goal to establish a cardiovascular center of excellence within the next 3 years. Resources might be transferred from nursing units with low census to the expanding telemetry unit, which is reflected in the operating budgets for those inpatient units.

The operating budget is also linked to other budgets that are reported and managed within the facility or institution. The basis for the operating budget is the statistical budget, an estimate of the units of service (UOS) for the setting, such as patients or procedures, which will be discussed in Chapter 5, "Reporting and Managing Budgets." The capital budget focuses on long-term purchases and investments guided by strategic planning initiatives compared with the operating budget, which focuses on short-term (annual) financial performance. Capital budget planning as well as further discussion of strategic planning are discussed in Chapter 6, "Special Purpose, Capital, and Other Budgets." Chapter 6 also discusses other types of budgets and approaches in planning these budgets. This chapter focuses on the methods for planning the operating and the statistics budget.

BUDGET FORECASTING

A key activity in preparing an operating budget is estimating the budget values for the next fiscal year. This section discusses some commonly used methods for making budget projections. Healthcare budgets are complex, and in large institutions such as hospitals, the budget projections are frequently the responsibility of financial officers, with input from the nurse managers and directors. Bedside nurses may become involved in budget planning and preparation and will find these methods useful in developing budgets.

Benchmarks and Budget Targets

One of the simplest ways to develop budget projections is to use benchmarks or budget targets as the budgeted value. One example is using the national benchmark of 3% of labor expenses as the budget for overtime expenses (Beckers Hospital Review, 2018). An internally developed budget target might also be applied, such as reducing medical supplies expenses by 5% over the coming year.

Retrospective Forecasting

Budget planners often use past performance as a guide for budget projections, a method known as **retrospective forecasting**. Retrospective forecasting methods use past event data to predict future values. Budgets are frequently developed based on various forms of retrospective forecasting. The assumption is that the best available predictor of future performance is past performance. Retrospective forecasts are generally **quantitative**, relying on numerical data. Retrospective forecasts can be supplemented with **qualitative** data that do not rely on numerical data. Qualitative data include the history, policies, and politics of an organization, as well as the nurse's experience.

A simple and frequently used approach to budget preparation is **incremental budgeting**, in which the current year's budget is used as the base for the next year's budget, making additions, reductions, or keeping the base the same. These incremental changes to the budget usually depend on administrative guidelines communicated during the budget preparation phase of the budget cycle. Administrative guidelines might require either a given dollar amount or a percent of an incremental change for the new budget. For example, a hospital might assume inflation and wage increases over the next fiscal year support an incremental budget increase of 5% for all nursing unit operating expense budgets.

The advantage of incremental budgeting is that it is simple to understand and implement. Incremental budget decisions are largely centralized and controlled at the top administrative levels, although in some settings department directors or other staff responsible for budgets may provide input. One problem with incremental budgeting is that there is a tendency to increase the budget year by year, without always fully analyzing the actual need for an increase. For example, a 5% increase in an operating budget might be greater than actually required, or it might be insufficient for the unit's needs. Incremental budgeting may therefore be inefficient.

Incremental reductions (budget cuts) may also occur without a complete analysis of their need or consequences. For example, hospital administrators might require a 5% cut in the operating expense budgets of all departments and nursing units. The actual budget requirements may vary from one department to another, so an incremental budget reduction might be excessive for one department, while other departments, such as nursing, could manage with a greater than 5% budget reduction. Because incremental budgeting relies on administrative guidelines, there may be little analysis or negotiation of budget items by the managers or staff who are most familiar with the nursing unit facing the budget cuts. Incremental budgeting does not account for the resources a nursing unit may require to operate efficiently and profitably. Other approaches discussed in this chapter that involve more analysis of the budget and the impact of budgeting decisions help overcome the limitations of incremental budgeting.

Another of the more common approaches to retrospective forecasting is the **annual spend down** or "use it or lose it" method. Managers are expected to spend their entire budget by the end of the fiscal year, or the amount not spent is cut from the next year's budget. For example, if a nurse manager has \$100,000 budgeted for a line item over a year and only spends \$90,000 that year, the next year's budget for that line item is reduced to \$90,000.

The spend-down method rewards managers who meet annual budget targets without going over or under budget. Grant funders use the spend-down method to motivate grant writers to estimate, as well as spend, their budgets as accurately as possible. However, in many settings managers are compelled to spend down the entire budget by the end of the year, whether this is the most efficient use of resources or not, so that they avoid budget cuts. If the setting uses flexible budgeting, a spend-down approach may either be inappropriate or complicated to apply, as expenses are expected to drop if volume drops. Spend-down incentives may penalize managers who find innovative ways to reduce expenses without reducing quality.

Variance analysis is another approach to retrospective forecasting. Variance analysis identifies sources of uncontrollable variance that may require adjustment of the next year's budget. For example, if price increases result in an uncontrollable increase in the expenses for medical supplies, the next year's budget may be adjusted to increase the amount budgeted for those supplies.

In some situations, variance analysis indicates that an unfavorable variance is controllable. Rather than adjusting the budget over the next year, a controllable unfavorable variance is often addressed as a performance problem. For example, if an unfavorable overtime expense variance is determined to be controllable, the next year's budget likely will not increase the amount budgeted for overtime expenses. Instead, the manager is expected to develop strategies to improve the control of overtime expenses and to meet the overtime expense budget target over the next year. Many hospitals require nurse managers to complete variance reports monthly, explaining the variance and creating an action plan to correct negative variances.

Unexpected events during the fiscal year might result in unbudgeted expenditures. As a result, earlier time periods in the annual budget might not reflect performance later in the year. One method to adjust for unbudgeted events in budget planning is **annualizing**. The monthly annualized budget amount is multiplied by the remaining months of the fiscal year to estimate a revised budget. The monthly annualized budget amount is multiplied by 12 to estimate the amount required for the next year's annual budget.

For example, assume that the East Wing medical-surgical unit experiences a surge in volume mid-year 2021. Beginning in September 2021, East Wing staffs an additional five beds for a total of 25 staffed beds (Table 4.2). The nurse salaries and wages are budgeted based on 20 staffed beds. However, the increase in UOS results in actual nurse salaries and wages of \$161,536 in September and \$158,464 in October. The increase in UOS is expected to continue, so the performance for September and October 2021 is annualized to budget an average of \$160,000 for nurse salaries and wages for November and December 2021 ($\$320,000 \div 2$ months). This annualized estimate is used to estimate the annual nurse salaries and wages budget of \$1,920,000 for 2021 ($\$160,000 \times 12$ months).

A trend line (discussed in more depth in Chapter 5, "Reporting and Managing Budgets") is a line created by a mathematical equation that estimates or predicts the movement of an economic variable over time. Budget data from prior years is used to create the trend line, which predicts the budget value in the future. The trend line provides a visual representation of the trend, making the trend data easier to present and understand.

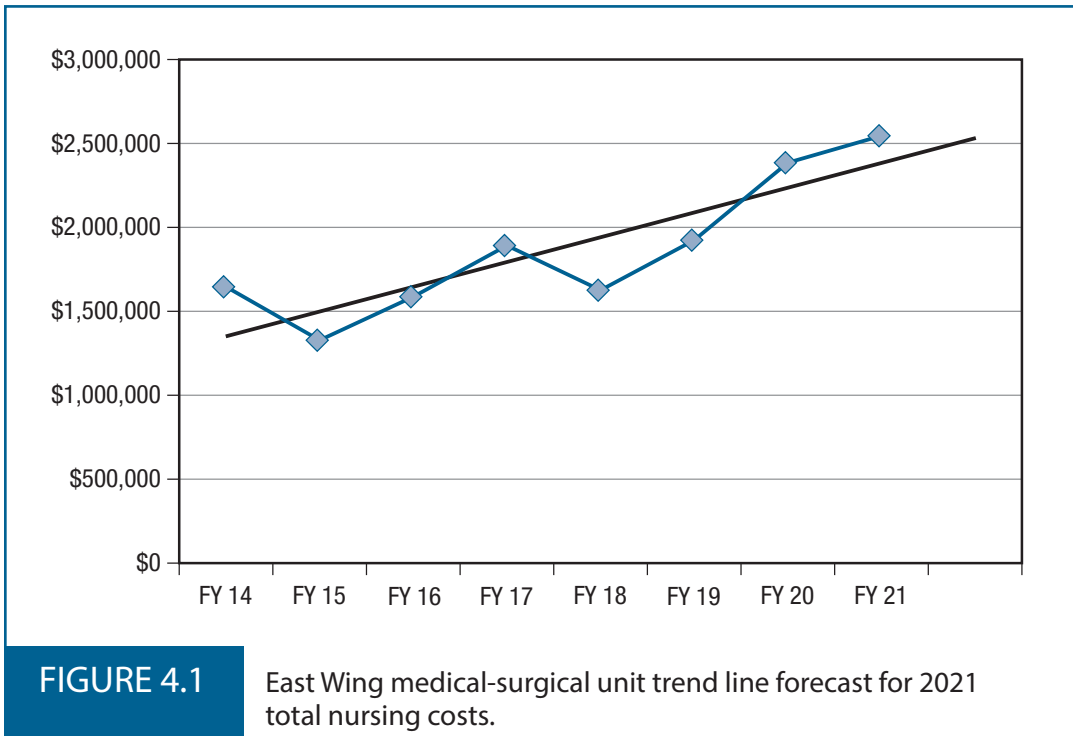
Trend lines can be created using spreadsheet programs that calculate the trend line as part of a line graph. In many institutions, financial officers create graphs of historical budget performance with trend lines. For example, Figure 4.1 presents a trend line to predict the total nursing costs for the East

TABLE 4.2

East Wing Medical-Surgical Unit Annualized Budget and What-If Scenario for Increasing Bed Capacity, September to December 2021

Item	September 2021		October 2021		September and October 2021	Annualized November 2021	Annualized December 2021
	Budget	Actual	Budget	Actual	Actual	Budget	Budget
Days in time period	30	30	31	31	61	30	31
Staffed beds	20	25	20	25	25	25	25
Patient days	510	631	520	619	1,250	625	625
Occupancy	85.0%	84.1%	83.9%	79.9%	82.0%	83.3%	80.6%
Total RN FTEs	35.7	44.2	36.4	43.3	43.8	43.8	43.8
Total RN salaries and wages	\$130,560	\$161,536	\$133,120	\$158,464	\$320,000	\$160,000	\$160,000

FTEs, full-time equivalents.



Wing medical-surgical nursing unit for 2021. The trend line predicts that the total nursing costs for 2022 will be similar to 2021 performance, a little over \$2.5 million.

Prospective Forecasting

Another method of forecasting is **prospective forecasting**, based on the assumption that current information enables the prediction of future events. Prospective forecasts are often related to knowledge of new or changed policies and regulations that will affect financial performance in the future. Some institutions have research departments that compile and analyze legislative reports, updates from health plans, and other information that helps forecast revenue and expenses for the next fiscal year. For example, the Patient Protection and Affordable Care Act of 2010 imposes financial penalties for hospitals with high readmission rates, and selected 30-day readmission rates for Medicare patients are reported to the public (Centers for Medicare & Medicaid Services [CMS], 2022a). These regulations and initiatives likely result in hospitals providing more resources to reduce preventable readmissions and to consider the impact of preventable readmissions on hospital revenue.

Related to the use of information is the application of expert opinion to prospective budget forecasting, also known as qualitative forecasting. For example, nurse managers and administrators may meet to discuss changes they anticipate over the next year that may impact operating budgets as part of a strategic planning process. The expertise and experience of these leaders may be incorporated in projections of patient volume, revenue, and expenses. The findings from an analysis of expert opinion often result in a range of predicted outcomes. Scenarios for patient volume might be rated as a specified range to allow for differences among the experts who offer their opinions. For example, a strategic planning session might result in ranges of the highest predicted level of patient volume to the lowest or the most likely level of patient volume to the least likely.

Another prospective forecasting approach is using **what-if scenarios** to analyze the possible impact of a change in revenue or expenses. Computer spreadsheets are well suited to making what-if calculations. Calculating various what-if estimates allows the review of potential alternative outcomes. This approach enables predictions of the impact of budget decisions for the next fiscal year.

The earlier example using **Table 4.2** can be viewed as a what-if scenario. Before deciding to expand East Wing's capacity from 20 to 25 beds, the nurse manager can see what impact the expansion will have on patient days, nurse full-time equivalents (FTEs), and nurse salaries and wages. The nurse manager also wants to be sure that the change in capacity from 20 to 25 beds maintains an occupancy rate close to 85% for most days of the year. It is clear that expanding East Wing's capacity affects not only the 2021 budget but also will require increases in the 2022 budget. The nurse manager and the Bigtown Hospital administration are thus better informed about the future impact of decisions that affect East Wing's operating budget.

Prospective budgeting includes budgeting for new line items. In some situations, the new line items are the result of unexpected expenses over the fiscal year. For example, the NPs at MNC may find that a number of their disease management patients require wound care management. MNC incurs expenses for medical supplies for these patients that were not anticipated in the 2021 budget. The additional time NPs need to manage these patients strains the capacity of MNC.

In many cases, special projects or new initiatives are planned that require additional line items in the next year's budget. For example, the MNC nurse manager writes a business plan to establish an outpatient wound care clinic in 2022. This new initiative requires budget projections for anticipated reimbursement and expenses for a wound care nurse, an examination room, and the necessary equipment and supplies. Chapter 6, "Special Purpose, Capital, and Other Budgets," and Chapter 9, "Building a Business Case," discuss budgeting for special projects and business plans in more detail. Chapter 11, "Health Program Grant Writing," presents details of budgeting for health program grant proposals. Sustainability of these special projects requires including these new line items in the next year's operating budget when the plan or proposal funding ends.

Budget projections often include adjusting for predicted inflation. The same method may be used to estimate the impact of increases in salaries and wages over the next fiscal year. For example, based on the annualized estimates in **Table 4.2**, the 2021 nurse salaries and wages budget is estimated at \$1,920,000. However, a salary and wage increase of 3% is planned for 2022. The 2021 salaries and wages budget is therefore adjusted for the projected increase, resulting in a budget estimate of \$1,977,600 ($\$1,920,000 \times 1.03$).

Zero-Based Budgeting and Step-Fixed Budgeting

Preparing a continuing budget as if it were intended for a new program or service is known as **zero-based budgeting (ZBB)**. ZBB is a prospective approach intended to improve the accuracy and control of the budgeting process, thus reducing waste and improving efficiency. In contrast to incremental budgeting, which automatically applies budget increases or cuts, ZBB requires detailed analysis of every line item as it is added to the budget.

Although ZBB increases efficiency and can improve financial performance, this approach also has limitations. The ZBB process is complex, requiring considerable time and effort, and is a burdensome requirement of all operating budgets each year. A better approach is to require zero-based budgets for selected programs or line items. For example, the nurse manager of MNC believes that the \$6,000 annual budget for nonmedical supplies is excessive and should be reduced for 2022. A ZBB approach requires that the nurse manager start with a budget of \$0 and identify and evaluate each line item as it is added to the budget. This process is time consuming but assures that the 2022 budgeting for nonmedical supplies is accurate and cost-effective. ZBB is typically not used in hospitals.

When budget projections indicate changes that require a change in capacity, step-fixed budgeting is a useful approach for budget planning. For example, the MNC NPs are able to manage about 1,300 patient encounters per year, or about 3,900 total encounters for the health center. The NPs are functioning close to their maximum capacity over 2021. If MNC assumes any additional contracts for patient encounters, the health center must hire at least one more NP. As the workload increases beyond 1,300 additional patient encounters, another NP must be hired. In other words, three NPs are sufficient to cover 3,900 patient encounters, four NPs are needed to cover up to 5,200 patient encounters, and five NPs are required to cover up to 6,500 patient encounters. Budgeting for additional examination rooms and equipment may require capital budgeting, discussed in Chapter 6, “Special Purpose, Capital, and Other Budgets.”

Forecasting Challenges

The future is always somewhat unpredictable, so the forecasting methods that have been presented must allow for error. One way to measure and understand error is to compare the forecasted to actual data at the end of the forecasted time period. For example, if in 2020 the MNC nurse manager projects 5,000 patient encounters for 2021, the predicted UOS can be compared with the actual 2021 UOS after the end of the 2022 fiscal year.

The accuracy of a forecast is expected to decrease as the time frame for a prediction increases. In other words, a forecast made in 2020 for 2021 is likely more accurate than a forecast made in 2019 for 2022. One implication is that nurses interpret forecasts using methods such as trend lines conservatively as short-term forecasts. It is also recommended that any known error or possible sources of errors be reported when providing a forecast. For example, if the amount estimated for inflation is uncertain and based on one’s best guess, this uncertainty should be reported when the budget figures that are adjusted for inflation are reported.

Another approach to address possible forecast errors is to report a range of predictions rather than a single specific number. For example, the nurse managers of several medical-surgical units might be asked to predict the percent of change in patient volume for the next fiscal year. In addition, each nurse manager could be requested to provide both a high and low estimate. The sets of high estimates and low estimates could each be averaged, resulting in an overall range. Reporting a range of estimates helps account for forecasting error, as there are many factors that influence events, such as patient volume.

A combination of retrospective and prospective methods is often advisable in forecasting. It is also advisable to apply a combination of qualitative and quantitative methods when making forecasts. For example, in forecasting UOS, it is possible to review historical data and create a trend line (a quantitative, retrospective approach). The trend line prediction can then be compared with the predictions made by experienced managers and administrators (a qualitative, prospective approach). Further refinement of the forecast is possible by analyzing anticipated changes in the coming fiscal year, such as employment rates that could affect the numbers of persons who are insured and thus more likely to access healthcare. Rapidly changing situations or forecasting errors might lead to widely differing forecasts from each of these approaches. On the other hand, similar forecasts based on various approaches help reinforce the likely accuracy and certainty of these predictions.

Combinations of forecasting approaches help in considering all possible internal and external sources of change. Internal sources of change include the various factors in the work setting or institution that might affect the forecast. For example, if a hospital is expanding its cardiovascular services and programs, it is reasonable to predict that more nurses might need to be hired to staff these services and programs.

External sources of change include new laws, regulations, and findings from medical research that might affect the forecast. For example, in 2012 the CMS changed a number of regulatory

requirements for hospitals. One change is that APRNs and other nonphysician practitioners may be appointed to the hospital's medical staff and function at their full scope of practice. These and other changes in CMS regulations should reduce costs to hospitals (CMS, 2022b). Strategic planning and hospital budgets will likely be influenced by these new regulations.

PLANNING THE OPERATING BUDGET

Planning the operating budget requires projections for volume, revenue, and expenses. As mentioned earlier, these projections are based on various forecasting methods and are often linked to strategic planning throughout the facility. Budget planning is therefore a complex process requiring teamwork and accurate information. A worksheet that may be helpful as a guide for operating budget planning is shown in Appendix [Table 4A.1](#).

The Budget Cycle and Calendar

Although budgeting is a continuous managerial activity, most organizations establish a **budget cycle**, including a schedule for budget preparation, negotiation, approval, and implementation. As with other aspects of budgeting, organizations differ in their policies for establishing the budget cycle. In many settings, a calendar for assignments such as budget reports, proposals, budget negotiations, and final budgets is distributed. [Box 4.1](#) summarizes the elements of a typical budget cycle.

Following the development of the strategic plan, department directors (ideally assisted by staff) prepare and submit departmental and other work unit budget proposals. These proposals include budgets for new programs, substantial changes in programs, or extensive capital improvements. Department directors or nurse managers also prepare the operating and capital budgets for continuing programs and services. After submission of these budgets, there is a schedule of review, negotiation, and approval or denial of the budgets by upper-level administration. Budgets may be required to be revised and resubmitted for final approval.

BOX 4.1

Elements of the Budget Cycle

- Calendar with schedule and assignments for budget preparation
- Communication of the organization's assumptions, priorities, goals, objectives, and performance targets for the next budget year as part of the strategic plan
- Preparation of budget proposals, followed by the operating and capital budgets, then the cash budget
- Budget negotiation, revision, and final approval
- Preparation, presentation, and approval of the master budget
- Distribution of the next budget year's budget worksheets and guidelines to begin budget implementation, monitoring, and control
- Evaluation of performance over the completed budget year
- Cycles start over as it is continual

Statistics Budget Planning

The statistics budget is a projection of UOS that represents utilization of health services. The statistics budget is prepared before planning the operating budget, because healthcare revenue and expenses are usually based on volume. The volume statistics are also linked to a setting's capacity or the maximum UOS that can be managed in a healthcare setting. Performance targets must be set at some point below capacity because factors such as unexpected delays prevent healthcare settings from operating at full capacity for an extensive time period. Therefore, budget projections are often based on performance targets set at levels somewhat below capacity.

Table 4.3 presents the 2022 projected operating budget for MNC. The budget presents actual past budget performance data for 2020 and 2021. As budget indicators are discussed, examples of approaches to budget planning and projection are presented. The first items show the actual 2020 and 2021 statistics, followed by the 2022 budgeted statistics.

The number of examination rooms and NPs on staff are indicators of actual and budgeted capacity. The NP capacity is based on performance targets of four encounters per day per NP for 2020 and six encounters per day per NP for 2021 and 2022. The increase in capacity is because the MNC now has administrative support so that the NPs can focus all their time on clinical activities. The encounters per day are multiplied by the 224 days each NP is budgeted to work. Actual performance is reported as actual encounters per day and the total encounters from accountable care organization (ACO) contracts and self-pay encounters.

A line is reported for NP productivity or the proportion of actual encounters to NP capacity. The performance target is for the NPs to work at 95% of capacity overall, the level at which the NPs are believed to function most efficiently. The 2022 budget therefore projects 3,830 patient encounters, or 95% of the 4,032 capacity. The nurse manager and NPs at the MNC decide to maintain their current contracts with Welby ACO for disease management and wellness care. A contract for immunization of Bigtown school children is changed so that the MNC will provide about 300 encounters rather than the 500 encounters contracted in 2016. The NPs will focus more on immunizing preschoolers entering the school system in 2017, compared with older children. Some continued increase in self-pay encounters is anticipated for 2017.

Table 4.4 presents the 2022 projected operating budget for the East Wing medical-surgical unit. The actual performance for 2020 and 2021 is displayed, with budget projections for 2022. The statistics indicate that East Wing will increase its capacity from 20 to 25 staffed beds over the next year. Strategic planning led to the reorganization of medical-surgical units at Bigtown Hospital. The reorganization resulted in the closure of one medical-surgical nursing unit (North Wing) and the allocation of additional beds to East Wing. The 2022 budgeted patient days of 7,756 reflect a performance target of 85% occupancy, a level at which East Wing is believed to operate most efficiently. These projections are based on strategic planning decisions and expert opinion, as well as historical information and trends for patient days.

Revenue Budget Planning

Operating revenue projections are based on the statistics budget and on anticipated reimbursement for the coming fiscal year. MNC negotiates the same reimbursement for 2021 as for 2020 (**Table 4.3**). Although MNC will manage about 200 fewer immunization encounters over 2017, the continued reimbursement of \$450,000 adjusts for inflation. Grant funding continues at \$50,000, and additional revenue is anticipated from private collections from self-pay patients and from donations. Revenue is budgeted at \$138 per patient encounter, reflecting a per-unit increase.

Gross revenue for the East Wing medical-surgical unit is estimated at \$6,522,120 for 2022. The gross revenue reflects the charges for services on East Wing, not the actual reimbursement (net revenue) that

TABLE 4.3

Millway University Nurse-Managed Health Center Operating Budget Projection for 2022

Item	2020	2021	2022
	Actual	Actual	Budget
Statistics			
Examination rooms	1	3	3
NPs on staff	1	3	3
Total NP encounters per day	3.8	17.6	18
Total NP Encounters Per Year (Capacity)	896	4,032	4,032
Total ACO encounters	640	3,332	3,100
Self-pay drop-in encounters	210	611	730
Total Encounters	850	3,943	3,830
NP productivity	94.9%	97.8%	95.0%
Revenue			
Welby ACO contract revenue	\$35,000	\$450,000	\$450,000
Grant revenue	\$50,000	\$50,000	\$50,000
Private collections	\$3,000	\$8,530	\$10,000
Donations	\$20,000	\$18,000	\$20,000
Total Revenue	\$108,000	\$526,530	\$530,000
Revenue Per Patient Encounter	\$127	\$134	\$138
Expenses			
Personnel expense NPs	\$70,000	\$210,000	\$216,300
Benefits @ 30%	\$21,000	\$63,000	\$64,890
Clinic 0.5 FTE	\$0	\$30,000	\$30,900
Clerical 0.8 FTE × 2	\$0	\$40,000	\$41,200
Total Personnel Expense	\$91,000	\$343,000	\$353,290
Medical supplies	\$4,300	\$127,930	\$95,760
Nonmedical supplies	\$0	\$5,780	\$2,000
Depreciation	\$0	\$3,897	\$0
Capital expenses	\$0	\$38,971	\$10,000
Overhead	\$0	\$10,000	\$10,000
Total Nonpersonnel Expense	\$4,300	\$186,578	\$117,760
Total Health Center Expense	\$95,300	\$529,578	\$471,050
Cost Per Patient Encounter	\$112	\$134	\$123
Net P&L	\$12,700	–\$3,048	\$58,950
P&L Per Patient Encounter	\$14.94	–\$0.77	\$15.39

ACO, accountable care organization; FTE, full-time equivalent; NPs, nurse practitioners; P&L, profit and loss.

TABLE 4.4

East Wing Medical-Surgical Unit Operating Budget Projection for 2022

Item	2020	2021	2022
	Actual	Actual	Budget
Days in time period	365	366	365
Statistics			
Staffed beds	20	20	25
Patient days	6,000	5,750	7,756
Discharges	1,200	1,100	1,686
Total Gross Revenue	\$5,289,839	\$5,435,100	\$6,522,120
Staffing			
Direct care hours PPD (actual HPPD)	7.5	8.2	8.0
Total direct care (productive) hours	44,700	47,300	62,050
Paid nonproductive hours	10,040	11,660	10,549
Total paid hours	54,740	58,960	72,599
RN overtime hours	5,000	4,800	1,452
Total RN paid hours including overtime	59,740	63,760	74,050
Total RN FTEs	40.2	42.9	49.8
Agency nurse hours	1,000	1,100	1,000
Personnel Expenses			
Average RN hourly wage	\$32.00	\$32.00	\$33.00
Total hourly wages	\$1,751,680	\$1,886,720	\$2,395,751
Total fixed staff (manager and clerical)	\$150,000	\$150,000	\$154,500
Total benefits	\$356,565	\$381,885	\$478,172
Total RN wages and benefits	\$2,258,245	\$2,418,605	\$3,028,422
Overtime expenses	\$240,000	\$230,400	\$71,873
Agency nurse expenses @ \$70/hour	\$70,000	\$77,000	\$70,000
Total Personnel Expenses	\$2,568,245	\$2,726,005	\$3,170,295
Nonpersonnel Expenses			
Medical supplies	\$240,000	\$230,000	\$275,347
Nonmedical supplies	\$1,832	\$2,187	\$2,000
Other nonpersonnel expense	\$479	\$531	\$500
Total Nonpersonnel Expenses	\$242,311	\$232,718	\$277,847
Total Expenses	\$2,810,556	\$2,958,723	\$3,448,142

FTE, full-time equivalent; HPPD, hours per patient day; PPD, per patient day.

is received by Bigtown Hospital. The hospital administrators use a combination of retrospective and prospective approaches to estimate revenue and reimbursement for 2022. Retrospective approaches include historical data and trend lines of revenue and reimbursement for prior years. Prospective approaches include a review of new Medicare, Medicaid, and commercial insurance regulations and policies for reimbursement, as well as expert opinion regarding local employment and the anticipated payer mix sources of reimbursement that are expected over the coming year.

Operating Expense Budget Planning

The operating expense budget is the budget most likely to be reported to nurses and nurse managers. Ideally, nurses and nurse managers provide input for the development of the next year's operating expense budget. Performance targets are frequently used to budget expenses in order to motivate cost control and efficiency.

PERSONNEL BUDGET PLANNING

An important first step in planning the personnel budget is to estimate staffing needs over the coming fiscal year. Staffing for MNC is simple, as three NPs are required to deliver services with support from a part-time nurse manager and two part-time clerical assistants (**Table 4.3**). If MNC had negotiated any additional contracts or expanded any of its services, a step-fixed budgeting method would be applied to add an additional NP for every additional increment of 1,300 patient encounters.

The staffing for East Wing medical-surgical unit is more complex than staffing for MNC. The nurse workload or direct care hours are estimated based on the performance target of 8.0 hours of direct nursing care per patient day, requiring one RN scheduled for an 8-hour shift for every three patients (**Table 4.4**). The 8.0 direct care hours are multiplied by the projected 7,756 patient days to determine the total number of direct care hours budgeted for 2022.

The next step is to determine the paid nonproductive hours that staff is likely to use over the next year. The East Wing nurse manager uses a performance target to budget the 2022 nonproductive hours, establishing the budget at 17% of nonproductive hours to total paid hours. The 17% target accounts for holidays, vacations, sick leave, and other paid nonproductive time (Suby, 2022). The performance target for overtime hours is established using the national benchmark of 2% of total paid hours (Bateman, 2012).

The next step is to determine the number of FTEs required for staffing over the coming fiscal year. The budgeted FTE represents an **adjusted FTE** that accounts for direct care, nonproductive time, and overtime hours, as well as 7 days per week coverage. The adjusted FTEs are reported as total RN FTEs, and they are calculated for 8-hour shifts by dividing the total paid hours, including overtime, by 2,080 hours in an annual FTE and multiplying that result by 1.4 to include staffing for weekends. Note that increasing the bed capacity and patient days for East Wing has increased the staff FTEs by nearly 7.0 FTEs from 2021 to 2022.

Agency nurse hours are budgeted for 2022 using an incremental budgeting approach. The administration issued a policy that the performance target for medical-surgical unit agency nurse hours may be budgeted at no more than 1,000 hours. Nurse managers are expected to carefully control the use of agency nurse hours over the coming year. During the COVID-19 pandemic, the use of traveling nurses increased dramatically. These travelers are often coded under "agency."

The next step in preparing an inpatient personnel budget is to convert the projected staff hours to dollars. For simplicity, it is assumed that the staffing consists entirely of RNs. A **skill mix** including other staff such as LPNs and nurse assistants requires estimating expenses based on various wage levels. Wages are an overall average \$32 per hour for East Wing RNs in 2020 and 2021. Note that this is also a simplification, as in actual healthcare settings wage estimates are often more detailed and complex based on factors such as seniority and education. Shift and weekend differentials are also omitted from this example. The \$32 per hour wage is multiplied by 1.03 and rounded to the nearest dollar (\$33) to estimate a 3% wage increase for Bigtown Hospital employees in 2022. A 3% increase is also applied to the salaries for East Wing's fixed staff.

Benefits are estimated at 25% of total wages and salaries (excluding overtime) for 75% of the fixed and RN staff who are projected to be eligible for employee benefits. Overtime wages are calculated as 50% higher than the average base pay, or \$49.50 per hour for 2017. The agency nurse expenses are estimated based on the performance target for agency nurse hours, at the estimated fee of \$70 per hour. All these staffing expenses are added for the \$3,170,295 total personnel expenses budgeted for East Wing for the 2022 fiscal year.

NONPERSONNEL BUDGET PLANNING

Nonpersonnel budgets are typically planned according to the type of nonpersonnel expense. The nonpersonnel budget is usually lower than the personnel budget. However, approaches such as ZBB and performance targets are often applied to nonpersonnel budgets to improve cost control and reduce waste.

The cost of medical supplies is second only to the cost of labor in many hospitals and have increased to over 46% in 2021 compared to 2019 (Gist Healthcare, 2022). Supply chain management (discussed in Chapter 5, “Reporting and Managing Budgets”) involves supervising the policies and procedures for ordering and purchasing products used in patient care (Bateman, 2012). Supply chain management is a strategy that helps nurse managers to better control the cost of medical supplies.

O'Connor (2015) states that key elements of supply chain management include:

- Centralization to manage inventory more efficiently and encourage volume-based purchasing
- Standardization to reduce costs and improve quality and outcomes
- Performance improvement based on timely data tracking
- Technology such as materials management information systems

Medical supplies budget planning should utilize supply chain management approaches. For example, the NPs at MNC were ordering their preferred brands of medical supplies, which resulted in the medical supplies budget increasing far more than budgeted in 2021. The MNC nurse manager now requires a process for requesting medical supplies that centralizes oversight of ordering and purchasing and that standardizes the brands of supplies ordered. NPs now work as a team to select the supplies they will share in the practice. More complex settings such as hospitals would need to establish mechanisms to track performance and to utilize technology to better implement supply chain management practices.

The MNC is also able to contract for medical supplies using Bigtown Hospital's **group purchasing organization (GPO)**. A GPO negotiates prices with vendors on behalf of member hospitals so that purchasing contracts are more favorable for medical supplies and capital equipment (Bateman, 2012). This arrangement enables MNC to obtain medical supplies for 2022 at a lower cost than in 2021.

The MNC nurse manager establishes a performance target for 2022 medical supplies expenses. In 2021, medical supplies for the MNC averaged \$32.44 per patient encounter. The performance target for 2021 was \$25 per patient encounter for medical supplies. Better supply chain management and closer supervision of the medical supplies budget are anticipated to allow the MNC to reduce its medical supplies costs for the coming year.

The East Wing medical-surgical unit must budget \$100,000 more than budgeted in 2021 for the 2022 medical supplies. The increase in patient days is expected to increase the amount of medical supplies East Wing will utilize in the coming year. Another reason for the budget increase is that prices for some medical supplies will rise over the coming year (inflation). Medical supplies expenses are therefore expected to increase from \$40 per patient day (PPD) in 2021 to \$42.55 PPD in 2022. Due to supply chain issues with the COVID-19 pandemic, supply costs have increased dramatically and may be unavailable or backordered.

Nonmedical supplies include items that are not used in direct patient care, such as forms and office supplies. Supply chain management approaches can be applied to requesting and purchasing nonmedical supplies so that items are standardized and purchased at the best possible price. Now, more than ever, nurse managers need to understand supply chain management.

The MNC manager uses ZBB to prepare the 2022 budget for nonmedical supplies. The NPs are surveyed regarding their needs for educational brochures and other nonmedical supplies, and the clerical staff provides input regarding the use of forms and office supplies. Items not determined to be necessary are dropped from the budget. Approval is required for any requests for nonmedical

supplies that are not already budgeted. Purchasing is now managed through Bigtown Hospital's GPO. The budget for nonmedical supplies for MNC is reduced to \$2,000 for 2022.

The East Wing medical-surgical unit 2022 budget for nonmedical supplies is also \$2,000 for 2017. The nonmedical supplies budget for this nursing unit has remained stable over the past 2 years. Price increases for nonmedical supplies are not anticipated, and even though East Wing is expanding by five patient beds, the use of nonmedical supplies is not expected to increase.

Capital expenses are for equipment and other expenditures, such as remodeling, that represent investments for more than one fiscal year. As will be discussed in Chapter 6, "Special Purpose, Capital, and Other Budgets," capital budgets are usually prepared separately from operating budgets. However, the capital expenses might be included as a line in the operating expense budget, as the financing for capital improvements is based on operating revenue. The MNC spent nearly \$40,000 in capital expenses in 2021 to equip examination rooms for the staff NPs. In 2022, the MNC budgets \$10,000 in capital expenses to equip an additional examination room for use by students and instructors as part of their clinical education.

The East Wing medical-surgical unit does not budget for capital expenses in 2022. The nursing unit is able to equip the additional beds that are staffed for 2022 without incurring any capital expenses. Any needed equipment will be transferred from another medical-surgical unit. Capital expenses are therefore not included in the East Wing operating expense budget for 2022.

Some operating expense budgets include a line for depreciation expenses, reporting the estimation and allocation of the cost of a capital asset over its useful life. The MNC manager estimates depreciation as 10% of the capital expense for 10 years. However, although depreciation is reported as an actual expense, it is not budgeted. The capital expenditure was made when the capital item was purchased. The MNC budget for 2022 therefore does not include an amount for depreciation. The MNC manager will report an estimated \$4,897 of depreciation as actual expense over 2022 (10% of the \$38,971 capital expenditure for 2021 plus 10% of the \$10,000 capital expenditure for 2022).

Capital expenditures for the East Wing medical-surgical unit have been limited over the past few years. The amount of depreciation is estimated at \$2,000 per year, reported as an actual expense, but not budgeted.

Some nonpersonnel budgets include overhead expenses, representing indirect expenses such as rent, housekeeping, and other support services. Bigtown Hospital charges the MNC \$10,000 per year to cover overhead expenses. However, nursing units at Bigtown Hospital are not charged overhead, so this item does not appear on East Wing's 2022 budget. Whether there is a charge for overhead or not, the indirect costs of running a clinic, nursing unit, or other healthcare setting are real and important in order to maintain the organization and its services. Overhead expenses are often allocated based on formulas (such as a percent of the operating expense budget) as a way of distributing the expense. Overhead expenses are usually fixed, so they do not vary with volume.

Other categories of nonpersonnel expenses may appear in the operating expense budget. The MNC does not budget for other nonpersonnel expenses. The nurse manager of East Wing medical-surgical unit budgets \$500 per year to send a staff nurse to an educational conference. The amount allowed for other nonpersonnel expenses is limited by Bigtown Hospital policy, so the nurse manager cannot negotiate an increase in this budget item.

CLOSING A PROGRAM

In some situations, a product, service, or program becomes unprofitable or no longer fits the purpose of the department or organization. In such a case, it may be necessary to discontinue the program. For example, changes in patient utilization require Bigtown Hospital to reorganize its medical-surgical

nursing units. The decision is to close a medical-surgical unit (North Wing) and to expand East Wing medical-surgical unit by five patient beds. Typically, the major concern in closing a healthcare program is the management of human resources. If the employees working in the unit that is closed are retained, they require reassignment to other departments or work and possibly retraining. If employees are to be released, they require termination benefits and possibly job counseling and other services. Budget planning must therefore include these requirements in decisions around making the closure.

The expansion of the East Wing medical-surgical unit will require approximately 7.0 additional FTEs of nursing staff. This staffing need will be met by transferring staff nurses from the North Wing to the East Wing. Several of the North Wing staff plan to retire or to reduce their employment to part time. The remaining staff can be transferred to other departments or nursing units in Bigtown Hospital.

Decisions must be made about medical equipment from a program that is closed. This equipment can often be relocated, rather than discarded, assuming it is in good condition (Esquibell & Spivey, 2015). For example, patient beds and other furnishings in patient rooms might be relocated and re-used in other parts of the hospital. Factors such as cleaning, repair, and storage may need to be considered when relocating equipment.

Another issue in closing a program is the use of the space made available. The space in North Wing will be used as a skilled nursing facility (SNF) for patients who require subacute care and rehabilitation before they can be discharged to their home or long-term care facility. Several of the North Wing staff will be retrained and will remain on the unit to operate the SNF. The skill mix will include a higher proportion of LPNs and nurse assistants, as the acuity of these patients is lower than for medical-surgical patients.

CONCLUSION

This chapter reviewed concepts and methods for planning the operating budget for inpatient nursing units and outpatient health centers. The importance of budget targets, teamwork, and accurate information is emphasized in making realistic budget projections and in controlling costs over the next fiscal year.

DISCUSSION AND EXERCISES

1. Think of a program or project, such as a small test of change to improve the quality of nursing care in your work setting or clinical assignment. Prepare a budget projected over the next 2 years for this program or project, including personnel and nonpersonnel expenses. Use the worksheet in **Table 4A.1** as a guide for budget preparation. Include revenue projections if the program or project generates revenue. Discuss your assumptions and rationale for the amounts estimated in the budget.
2. Review **Tables 4.3 and 4.4**. Assume that the nurses working in MNC or in East Wing have a 5% raise in pay for the following budget year. Calculate the change in personnel expenses and the impact on total expenses, and for MNC, the impact on profits. Discuss other changes that might affect the MNC or East Wing budgets.
3. Make an appointment with a nurse manager, administrator, or health officer of a health program or facility. Arrange an interview, asking about the most important budget concerns and budget planning issues in that setting. Discuss what you learned from people who manage and plan healthcare budgets.

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APPENDIX

TABLE 4A.1		Worksheet for Annual Operating Budget Preparation, Projected for 2 Years	
Item	Year 1	Year 2	Interpretation
Volume or UOS			Staffing and other budget estimates typically based on volume projections.
Personnel Expenses			List by types of personnel (such as RN, LVN, CNA).
Total Personnel Expense			Labor often the highest expense in healthcare settings.
Nonpersonnel Expenses			
Medical supplies			List medical supplies by item; consider supply chain management for better control.
Other nonpersonnel expenses			This includes items such as office supplies and staff training.
Estimated capital expenses			Capital expenses might be included in operating budgets, depending on conventions and policies.
Estimated depreciation			Depreciation is likely a fixed amount included in the budget.
Estimated overhead			Overhead might be a fixed amount included in the budget, or it might be variable, tied to the amount of laundry or other support services used.
Total Nonpersonnel Expense			
Total Expense			
Revenues by Revenue Source			List all sources of revenue, including grant funding, donations, Medicare, Medicaid, private insurance, and self-pay.
Total Gross Revenue			
Net P&L			Net P&L = total revenue – total expenses. Estimate might be inaccurate if gross revenue is used, as reimbursement is often discounted; therefore, using net revenue is more accurate.

CNA, certified nursing assistant; LVN, licensed vocational nurse; P&L, profit and loss; UOS, units of service.